office. Internal users 164 have access to the contents of the central database and can add, delete and change data stored therein.

[0070] One or more satellite offices 146 can be located anywhere and are connected to the internet. Internal users 148 connect to the satellite office via a web interface 152 or direct connection. The satellite office comprises a satellite database 154. The satellite database in each satellite office is periodically synchronized with the central database in the central office. The changed contents of the satellite databases are merged with the contents of the central database using well-known database synchronization techniques.

[0071] Internal users 144 also connect [[also]] to the central office or a satellite office via a web browser 142 interface connected to the internet. Internal users mainly perform administrative tasks such as maintaining the property portfolio information, user related information, etc. on the satellite and/or central databases.

[0072] The back end comprises a website that a user can log into from within the corporate network and search, list, view, upload, change or delete data. In order to control the management of the content the back end website ~~comrpsies~~ comprises two sections. The first section is a user management console (admin tools/security tools) where the different users (internal users) are granted access and can see and modify content in accordance with their configured role or permissions. The second section is where the data and content are maintained.

[0073] Note that the application of the invention is operative to provide an interactive environment on mobile (portable) devices on the different real estate portfolios that a company may have worldwide. The application also provides the option to view information related to properties not owned by a company (prospective properties not owned) and analyzes the information within the same graphical interface.

[0074] The application currently is split between the back end where all the data gets inputted and the front end, which currently is the iPad, iPhone or [[on]] iPod Touch but it is not limited to these devices only.

~~[0075]~~

[0076] The mobile property portfolio management system provides the capability of generating, maintaining, searching and displaying property portfolio data from a mobile device such as a smartphone (e.g., iPhone), tablet (e.g., iPad) or any other mobile computing device. The system is intended for use on any computer system such as desktop computers, laptop computers, notebook computers, netbook computers, wireless mobile devices, mobile phones, etc. It is however, especially applicable for use on tablet computers such as the
Apple iPad, Android based tablets and other tablet formats.

[0077] The property portfolio system comprises a mobile or client portion 132 and a central or server portion 156 (and zero or more optional satellite offices 146). The system comprises software that runs on one or more server computers as well as client or user side software that can be realized (1) as a standalone software application or "app" that runs on the client device (e.g., desktop, mobile device, tablet, etc.) or (2) entirely in a standard web browser. Essentially, the property portfolio system provides a digital version of a property portfolio with easy access to portfolio data for both internal users and public users and is particularly useful when realized on a tablet or mobile device.

[0078] The property portfolio management application of the invention project can be implemented at relatively low cost for mobile devices. A product incorporating the invention can accompany existing company real estate portfolios. It is appreciated that although the invention is described in the context of an example property portfolio system, it is not limited to such and can be used with portfolios ~~contain~~ containing items other than real estate.

[0082] Satellite database(s) 348, located in satellite offices, also exchange data with the central database. Typically, the satellite databases operate independently from the central database with internal users adding/changing/deleting records. Periodically (i.e. once a week, month, etc.), all or a portion of the satellite databases are synchronized with the central database. The synchronization can be performed online or offline and is not critical to the invention. For example, copies of the satellite database may be sent to the central office where datasets are added and deleted or modified in the central database based on the contents of the satellite database. Thus, after all satellite databases are synchronized, the central database contains a master version of all company data (i.e. an up to date version of portfolio data company wide). An updated offline database may then be generated for loading into the mobile devices for use ~~with~~ when access to the central database is not possible.

[0083] A block diagram illustrating the client and server tasks and related connectivity of the portfolio management system is shown in Figure 5. The system, generally referenced 500, comprises public version clients 502 and internal version clients 504 in communication with a server 510 via the internet 506 or other wide band network. In addition, internal users can access the server via a web browser interface 508.

[0084] In an example embodiment, the server is implemented using an operating system platform such as Windows, Linux, Sun OS, etc. The server 510 may be implemented using any suitable computing device. In operation, it runs various tasks, subsystems and databases, including but not limited to, IIS, FTP, SQL, etc. The server 510 comprises an operating system (iOS in the case of the iPad, iPhone) and several tasks including web services data task 512, web services site plan data task 514, process data task 513, report generator task 515, SQL database management task 517 and the central database 516. In one embodiment, additional server tasks include ABM City, ABM Region, ABM State, ABM Country, ABM Prospective, ABM Portfolio, ABM Property Status, ABM Property Type, ABM Regional

Office, ABM Leasing Agent, ABM Company, ABM Contact, ABM Tenant, ABM Tenant Category, ABM Tenant Config Global, ABM Unit, Process FootFall, Process Create SitePlan, Process Rent Roll, Generate Brochure and Generate Reports.

[0085] The public version client 502 for connecting public users to the server comprises an operating system (not shown), search task 503, display task 505, user interface task 507 and server interface task 509. In one embodiment, additional tasks on the public version client include Search Properties by Filters, Property location in Google Maps, View Property Information, View PDF Document on the property, View Images on the property, View FootFall information, View SitePlan map on the property and Comparison of Portfolios between non-owned Prospective properties.

[0086] The internal version client 504 for connecting internal users to the server comprises an operating system (not shown), search task 501, display task 511, user interface task 518 and server interface task 519. In one embodiment, the server, clients and web browser users all communicate over the internet using a secure protocol such as SSL. In one embodiment, additional tasks on the internal version client include Search Properties by Filters, Property location in Google Maps, View Property Information, View PDF Document on the property, View Images on the property, View FootFall information, View SitePlan map on the property, View Rent Roll information and Comparison of Portfolios between non-owned Prospective properties.

[0087] In one embodiment, the property portfolio system permits viewing and interacting with portfolios over mobile devices via the Internet. ~~User~~ Users can display and interact with multiple company portfolios in different countries with a mobile device over the internet and/or via Web UI. Actions possible on the data include but are not limited to add, update, delete~~:~~ ; information portfolio (data and images); site plan data; property information; financial data analysis; competitive (comparative) analysis; demographic data; statistics; regional

office related data; leasing agent; units; tenant-broker data; tenant data; and prospective data (i.e. property not yet owned).

[0088] The system comprises software (i.e. application or app) operative to be executed on mobile devices such as Apple Inc. products such as the iPad, iPhone and iPod touch. It is appreciated that the system of the invention can be implemented on other mobile devices as well without departing from the scope of the invention.

[0089] An advantage of the property portfolio system of the invention is the accurate view and interactivity provided mobile device equipped users. Users have access over the internet to all company portfolios wherever they may actually be located. The portfolio data itself is stored in satellite databases which are periodically synchronized with a central repository database located in the company's server in the central office.

[0090] It is appreciated that a mobile app ~~implemented~~ implementation based on the invention can be ported to a mobile device. Users can enter data from the mobile device, via the web, via a satellite office (after a synchronization event) or via a central office. Once the information is entered (add, modify, delete), it is updated in the backend utility (i.e. central database) resulting in users receiving updated information in real time.

[0091] In one embodiment, the app running on the user device is adapted to be especially usable as the typical user contemplated is not likely to have much training. In addition, the app is adapted to be ~~modifiable it will typically be needed to be~~ customizable for use by various types of users, e.g., directors, investors, database maintenance personnel, company officers, etc. who need access to the company portfolios. Further, the app is adapted to display the target property portfolio data in ~~various~~ one portfolio or different subsidiary portfolios.

[0092] The interface can be implemented on a mobile SDK platform for different mobile technologies (iPad, Android, etc.). Internal users have more access than public users as ~~they~~ the former are responsible for creating and making changes to the contents of the central database.

[0093] In one embodiment, ~~xcode~~ the Xcode suite of developer tools for the Apple Mac OSX operating system was used to create the system. This suite of tools comprises graphical user interface (GUI) based applications, command-line tools, and documentation to aid in the software development process. The ~~xcode~~ Xcode application provides a powerful user interface for creating and managing software development projects. ~~xcode~~ Xcode can be used to organize and edit source files, view documentation, build the application, debug the code, and optimize application performance.

[0094] In one embodiment, the app can be written using well-known Object Oriented Principles (OOP). The trade-off of increased code overhead and object message passing is considered justified by the increased modularization of functionality, data encapsulation, communication through interfaces and re-use through polymorphism.

[0095] The mobile framework (app) provides the core infrastructure for managing and running the application under different types of mobile devices (e.g., iOS, Android, etc.). Customization of the app is easily done through interactions with the classes of this framework.

[0096] A flow diagram illustrating an example portfolio manager method of the portfolio management system is shown in Figure 6. After launching the application (step 360), the main nib is loaded and the application delegate 368 is created (step 362). The application data structures are then initialized (step 364) (block 370) and the application enters the foreground (step 366) (block 372). All manipulations to windows occur through the programmatic interfaces of the UIWindow class.

[0097] A block diagram illustrating an example client app of the mobile portfolio system is shown in Figure 7. The device view, generally referenced 380, comprises the mobile device user interface 382, operating system (e.g., iOS) 382, port 384, event queue 386 and app itself 388. The app comprises a main run loop 390, application object 392 and a plurality of core objects 394.

[0098] In operation, a view, i.e. an instance of the UIView class, defines a rectangular region inside a window. Views are the primary mechanism for interacting with the user in the application. Views perform several functions, including drawing and animation support, layout and subview management and event handling.

[0099] Drawing and animation support include ~~where~~ views ~~draw~~ drawing content in their rectangular area. Some view properties can be ~~animated~~ modified to new values. Layout and subview management includes views that manage a list of subviews, allowing arbitrary hierarchies to be created. Views define their own resizing behaviors in relation to their parent view. Views can change the size and position of their subviews automatically or using custom algorithms. Event handling includes views receiving touch events and forwarding events to other objects when appropriate.

[00100] A high level system block diagram of the property portfolio system is shown in Figure 8. The system, generally referenced 540, comprises login/authentication related blocks including DBMS interface 542, controller 558, session block 560, client interface block 562, user account block 564 and timer block 566. In one embodiment, the client interface 562 comprises the application user interface (UI) that is compiled using ~~xcode~~ Xcode (objective C). It comprises the display screens and accepts swipes, text entry and other user generated commands, data, etc. The controller block 558 is the task responsible for the app user interface requests prior to login. The session block 560 is the task responsible for all app user interface requests for users that are logging in and authenticated. The user account block 564 contains data retrieved from the security database or other DBMS specifying the user's access level and permissions. The timer block 566 is a system object attached to a session to determine if a user has been inactive for a long enough period to be logged off by the system. The DBMS interface block 542 performs data storage and retrieval operations in the system from and to the DBMS.

[00101] The system 540 also comprises data management and display related blocks including the DBMS interface 542, fill form data/report generation block 544, database schema block 550, file system interface 552, web service block 546, template block 548, sort criteria 554, search control/template editor block 556 and controller 558. The controller 558 is operative to mediate communications between the various other blocks and between the subsystems. The template block 548 comprises a pre-defined format with ~~other and~~ filtering to apply to [[a]] Web services. Template information is stored in [[the]] Web Services on the server side. The sort criteria block 554 functions to use multiple sort criteria to re-order the records in the Web Services. The web services block 546 functions to retrieve data from the DBMS which incorporates the results of one or more DBMS requests. The report generation block 544, in combination with the web service data set block 546, template block 548 and sort criteria block 554 generate a formatted report in a web page. The template editor block 556 provides a service to create and modify templates. The DB schema block 550 comprises the schema of table and field layout (structure) in the DBMS (central and satellite databases). The file system block 552 comprises the computer file system for the alternate storage of data sets.

[00102] The system 540 also comprises auxiliary functionality related blocks including the file system block 552, controller block 558, help block 561 and logger block 563. ~~In~~ Using this functionality, the controller block functions to create the required logical components and mediate communication between them. The file system block 552 functions to store help pages and one or more system logs. The help block 561 functions to create help pages when requested. Help related information is stored in the file system. The logger block 563 is operative to maintain a system log where system user actions are stored on the file system.

[00103] A flow diagram illustrating an example property search method of the mobile client app is shown in Figure 9. The search method process (block 520) in the app is operative to search for property given certain search query or criteria. The particular database searched depends [[of]]

on whether the mobile device is connected to the internet or not (step 522). If the device is connected to the internet (i.e. access to the central database is available), then data is retrieved from the central database 526 in the central server (step 524). Conversely, if access to the central database is not available, data is retrieved from the offline database stored locally on the mobile device (i.e. via the file system) 530 (step 528). The retrieved data is processed (formatted, etc.) (step 532) and the query result is displayed to the user (step 534).

[00104] A diagram illustrating the components of a first internal user portion of the property portfolio system is shown in Figure 10. As described supra, the property portfolio system provides access to both public users and internal users. Internal users 402 interact with the central database through a set of administrator tools (admin tools) 404. The admin tools block 404 is operative to handle the intake of property information, permit modification of existing data and [[to]] delete property related data. Login block 406 is operative to configure and handle login events and coordinates user credential information storage in the security database 408. The reports block 412 is operative to generate one or more different types of reports in accordance with user input. The admin and report blocks read and write data from and to the central or satellite database 410.

[00105] In one embodiment, the actions possible by the admin tools and report blocks ~~are operative to Actions possible~~ on the data include but are not limited to add, update, delete~~:~~; information portfolio (data and images); site plan data; property information; financial data analysis; competitive (comparative) analysis; demographic data; statistics; regional office related data; leasing agent; units; tenant-broker data; tenant data; and prospective data (i.e. property not yet owned).

[00106] A diagram illustrating the central/satellite office connected to an online central/satellite database is shown in Figure 1 1. The system, generally referenced 420, comprises a central/satellite office (server) 430 in communication with a portfolio app (client)

components as implemented on the central office server. Internal users (administration users) interact with the portfolio management system via web security block 484. Login credentials are checked by login module 486 which communicates with the security database 499. Permissions, including adding/updating/deleting actions, are handled by task 488 which communicates with the security database 499. Users, including adding, updating, deleting actions, are handled by task 490 which communicates with the security database 499. Security related reports are generated by task 492 which communicates with the security database 499.

[00111] The synchronization of one or more satellite portfolio databases is handled by task 494 which accesses the central office database 498. As described supra, the satellite databases are periodically synchronized with the central office database. Task 496 processes offline data whereby an offline database is generated from a snapshot of the central office database 498 for use with the portfolio app running on mobile devices when access to the central database is not possible.

Security Tool

[00112] As part of the security tool, the portfolio system provides various data input screens in which internal users can input user and security related data. In one embodiment, the security tool provides login tools and security related tools. The security related tools include user tools for searching, adding, modifying and deleting users that will have access to the Admin Tools system. Commands are provided for listing the users registered in the system. The list shows the user's main information, including user name, real name, application to which the user has access, domain, role and type of user.

[0113] A diagram illustrating an example user information page of an example portfolio management system is shown in Figure 14. In this screen, user information is entered. If the type of user selected is "Active Directory", the system will request to indicate the domain to

which it belongs[[;]] . ~~however, if~~ If the user is a type "Web" user, however, the system will hide the domain field and its selection will not be necessary. Nevertheless, the system will request the user to enter his password as shown in ~~the image below~~ Figure 14. For example, the User Info screen, generally referenced 170, comprises domain field for the domain to which the user will ~~below~~ belong; a User Type input 171 where a user can select Active Directory (AD) user or web user; User Name field 172 for accessing the system; Password field 174; Real Name field 176 for the user's real name; Email field 178; Application drop down selection 180 for the application the user will have access to; and Role drop down selection 182 for the type of permission granted. An Add New button functions to open a new User Info screen and a Save button functions to save the current screen when pressed.

[00114] Also included in the security tools is the ability to configure the role or permission/authority each user will have in the system including tools for searching roles, adding new roles, deleting roles and modifying roles. A diagram illustrating an example role information page of an example portfolio management system is shown in Figure 15. The role information, generally referenced 570, comprises a list 578 that includes the name of the object, the action and description and an allow checkbox column. Adding a new role requires the user to enter several fields including a Name field 572 indicating the name of the role; a Description field 574 indicating the detail or comment describing the functions of the role; and an Application field 576 indicating the application in which the role will be created.

[00115] Note that in one embodiment it is necessary to validate the information before deleting a role because a role cannot be deleted if it is associated with a certain user. If the role linked to a user is removed, the user is left without any role reference thus making the remaining information inconsistent, as there cannot be a user that does not have an assigned role.

[00116] The security tool also provides a synchronization module which functions to receive the synchronization packages created by external applications and add their contents to the central database. Information added or merged includes information related to properties, tenants, units, etc. If the data in the external database is not found in the central database, then it is added. If the data in the external database is found in the central database then the system updates the data in the central database (i.e. merge process).

[00117] In addition, reports can be generated such as reports that list the security by application and reports that list users by their roles (permissions). It is appreciated that numerous other reports can be generated depending on the particular implementation.

[00118] The packages created by the applications have a folder structure containing the corresponding files related to the properties, tenants, etc. and a database backup with the information to be synchronized. This backup must be previously restored in the database by an administrator to perform the data synchronization.

Administration Tool

[00119] The property portfolio system also comprises an administration tool (or admin tool) for entering, modifying, deleting, searching and listing property related information. The admin tool comprises a plurality of screens that allow an internal user to search, add, change, and delete various property related data such as basic property information, tenant information, rent information, etc. Categories permitted to be entered and modified include maintenance of country, region, state, city, prospective and portfolio related information. Additional categories include tenant, broker and property related information. Reports on any admin tool data item can be generated along with the entering of siteplan information. For each category of data type, the admin tools provide the capability of searching, adding, changing and deleting entries.

Address field for the broker company address; a Phone field for the telephone number and a Fax field for the facsimile number of the broker. The Coverage City tab includes a field for the desired coverage city to be added to the coverage cities list. The Coverage Region tab includes a field for the desired region to be added to the coverage cities list. The List Contacts tab includes fields for Name and Surname of the brokerage company contact.

[00134] The brokerage related information also includes a contact list. Screens are provided for searching, adding, changing and deleting broker contacts. The new contact screen includes a Name field for the contact's name; Surname field for the contact surname; Company field for the company the contact belongs to; E-Mail field for the e-mail address of the contact; Phone field for the contact's telephone number; Mobile field for the contact's cellular phone number; and Fax field for the contact's facsimile number.

[00135] The leasing agents associated with properties are also maintained by the portfolio system. Actions include search, add, change, and delete of leasing agent information. A Leasing Agent Info screen comprises relevant fields including a First Name field for the agent’s first name; Last Name field for the agent’s surname; Phone field for the telephone number of the agent; E-Mail field for the e-mail address of the agent; City field for the city the agent belongs to; Address field for the personal agent’s address; Area Code field for the postal code of the agent; Role field for the role assigned to the agent; Property Manager field for the property’s administrator; and Portfolio field for the portfolio to the agent belongs.

[00136] The regional office associated with a property is also maintained by the portfolio system. Actions include search, add, change, and delete of regional office information. A Regional Office Info screen comprises relevant fields including a Legal Name field for the legal name of the regional office; City field for the city of the regional office; Country field for the country of the regional office; Description field for a description or comments; Address field for the address of the regional office; Area Code field for the postal code of the

vicinity of the property; Public Transportation Metros field indicates the number of metros that run in the vicinity of the property; Public Transportation Train field indicates the number of trains that run in the vicinity of the property; Public Transportation Tram field indicates the number of trams that run in the vicinity of the property; LOI/Option field; Initial Due Diligence field; Sale Agreement field; and Final Due Diligence.

[00142] The Floor tab is a screen comprising fields including a Floors Quantity field indicating the total number of floors the property has; and a Name field for the name assigned to the floor, any number of which may be added. The user enters the different floors that are in the building. If a floor is not defined for a property then unit information will not be able to be entered. In addition, the number of floors entered corresponds to the number of tabs displayed to navigate between the floors in the mobile device application.

[00143] The Files tab is a screen comprising fields for entering files associated with a property. The screen comprises fields including a Name field for the name of the file; Type field for the type of file, e.g., Picture, Property Info, Demographic, etc.; Public checkbox field indicating whether the file is public or not; Show Property Info field shows is the type 'Picture' is selected and indicates if the image can be used in the Property Info option in the mobile device application; Description field for details or comments related to the entered file; Physical File field indicates whether the file is physical or not; and Upload File field for entering the file name for uploading.

[00144] Under the Files tab, the user can add any number of attachment files. By selecting the correct file type different icons and functionality in the front end is activated. First, the desired file name to display as the title to the file is entered, followed by the file type. Every file type has its own designated icon in the front end. If the specific file type the user is interested in is not present, the user ~~select~~ selects other and the information displays under the property ~~info~~ information section in the front end. Files available to upload are image files and PDF. In an alternative embodiment, any desired file type may be uploaded. A selection whether ~~whether~~ the file is for public or

private use is entered. This information is used internally or for private use. A short description [[for]] of the file is entered[[.]] ~~Select~~ and a selection whether the file is a physical file or a url is made. If it is a physical file it must be uploaded. Once all the information has been entered for the file, the user clicks the 'Add New' button. This creates a new line on the grid under the entry section. Any number of files may be entered for a property.

[00145] The Statistics tab is a screen comprising fields for statistical information about the property. The screen comprises fields including a Year field for the year in which the statistical data entered is based on; Quarter field for the quarter of the year in which the statistical data entered is based on; Base Rent field; Gross Rent Income (GRI) field; Net Rent Income (NRI) field; NRI/GRI Margin (%) field; Market Value (MV) field; Equivalent Yield (EY) (%) field; Occupancy (%) field; Marketing Expenses field; and Service Charges Expenses field.

[00146] The Demographics tab is a screen comprising fields for entering and displaying demographic information about the property. The screen comprises fields including a Year field indicating the year in which the demographic data entered is based on; Population 5 min field indicating the total population 5 minutes from the property; Population 10 min field indicating the total population 10 minutes from the property; Population 15 min field indicating the total population 15 minutes from the property; Population 30 min field indicating the total population 30 minutes from the property; Number of Households field indicating the number of households; Household Income (Median) field for the average household income; Daily Commuters field indicating the daily estimated population of travelers for the selected year; Daily Population field indicating the daily estimated population for the selected year; and Annual Traffic Count field indicating the annual traffic count.

device such as a smartphone (e.g., iPhone, Android powered phone, etc.), tablet (e.g., iPad, Galaxy, etc.) or other suitable mobile computing platform. The application is operative to provide a user the ability to view, display, interact with and modify a real estate portfolio database located on a central server, stored in the cloud or stored locally on the mobile device itself (in the event the cloud or server version of the database is not available).

[00150] A diagram illustrating an example home screen of an example portfolio management system is shown in Figure 18. In one example embodiment, upon launching the application, the screen presented is divided into four parts or sectors and include a property search sector 260, property detail sector 262, map display (Google Maps) sector 264 showing the location of the properties and a summary sector 266. The screen displays a list of all the registered properties in alphabetical order by name.

[00151] A diagram illustrating another example home screen of an example portfolio management system is shown in Figure 19. This alternate screen is also displayed upon launch of the application and is divided into four sectors, including a property search sector 270, list result sector 272, map display (Google Map) sector 274 and a summary sector 276.

[00152] The property search sector 260, 270 is the first listing shown in the initial startup screen. In this sector, a user can search properties using different filters. As ~~you~~ one can appreciate there are fields that can be edited and the others that can be selected, for example: City, Property name, Property Number and Tenant, are fields that can be edited [[,]] . ~~this~~ This means that when positioned on either of them the system will allow ~~us to write~~ writing the desired information, for example ~~we can search~~ a property can be searched by its name or number. The fields can be selected wherein, for example, the first field selects the desired country. By default, the selected option is “All Country” but the system permits the desired country to be selected along with the portfolio or prospective. The system also allows a user to search properties using information about their related units, whether they are occupied, vacant or both, by

pressing the appropriate ~~"check"~~ "checkbox". Another filter for the property search sector is by property size in square meters (SQM). A user presses the "Unit SQM" option to use this filter and the system displays three fields allowing the entry of corresponding values. If a search by tenant is performed, the portfolio logo is no longer displayed in the map sector. Instead, the tenant logo appears on each of the properties it is located in. A "Search" button is provided to initiate a search based on the entered one or more search fields. A "Reset" button is also provided wherein by pressing this button the values in the fields are reset or blanked allowing a user to begin a new property search from the beginning.

[00153] Pressing the "Comp" button initiates a comparison operation and opens a comparison screen as shown in Figure 20. The screen, generally referenced 320, is divided into several sectors including a Portfolios sector 322, Countries sector 324, Prospective sector 326 and a map sector 328. In this screen, a user can make a comparison of properties associated with a certain portfolio to prospective properties ~~from a certain prospective~~. In addition, the user can add filtering by country, such that properties and portfolio properties of a certain country will be compared, otherwise the properties of all countries are compared. To make a comparison, a user selects the desired portfolio from the portfolio list and the desired prospective from the prospective list as shown in Figure 20.

[00154] Portfolios are selected from the portfolios sector 322, countries are selected from a countries sector 324 and prospectives are selected from a prospectives sector 326. Once the desired options are selected, the user presses the "Comparations" button. The system then performs the comparison process and when it is finished, the system displays the corresponding icon for each property in the map sector 328. If the property belongs to a portfolio then the portfolio icon is displayed, otherwise, the prospective icon is displayed and all related data is displayed in the map sector 328. The map display permits a user to zoom in or out of the world map. Clicking the "Back" button returns the user to the previous screen.

files of "Competitive Analysis" type that have been entered/configured with the property so that they can be visualized by users. The Demographic option when clicked provides the user with a list of all files of "Demographic" type that have been entered into the property so that they can be visualized by users. The Financial Analysis option when clicked provides the user with a list of all files of "Financial Analysis" type that have been entered into the property so that they can be visualized by users.

[00163] As described supra, when selecting a property, the options provided in the display view sector 276 in Figure 19 are enabled. These options are described in more detail infra. The "Picture" option when clicked displays one or more images associated with the property. [[As]] An example property image is shown in Figure 22. Pressing this option causes the application to display an images gallery that has been entered into the system such as via the admin tool. To display the images, a user navigates through the available images. ~~When the~~ The Next and Back buttons are ~~display~~ displayed accordingly depending on the number of images and where in the gallery the user is viewing. To return to the previous screen, the "Back" button is pressed. ~~and to~~ To proceed to the next image the "Next button is pressed.

[00164] The Site Plan option when clicked displays the property site plan, including the spaces the property has, and in case they exist, the tenants that are currently leasing each space. An example site plan view is shown in Figure 23. The site plan view, generally referenced 300, comprises a floor plan view 302 in the upper portion of the view and additional information displayed in the lower portion of the view. Additional information may include, for example unit number, tenant name, AQM, end lease state, lease status, minimum rent, percentage rent, tenant category, % annual increase, recovery month and sales per month.

[00165] Several floor plans can be displayed where each is ~~associate~~ associated with a tab 304 in the upper right portion of the display. Clicking on a tab displays the corresponding floor plan. The example view shown has three tabs "P1", "P2", and "P3". The "P1" tab represents the

name of the floor plan “P1”. It is noted that the P1 property has only one floor, but if it had more than one floor, the application would include a tab for each floor.

[00166] In addition to the floor plan for each selected floor, the application shows additional details including for example the detail of the number of vacant units, number of occupied units and what tenant has hired that unit. “View Tenant” list and “View Vacancy” list buttons in the lower right of the display provide list views of tenants and vacancies, respectively. When the “View Vacancy list” button is pressed the application displays the list of the vacant units and ~~that~~ the link changes to “Hide Vacancy list” allowing ~~to hide~~ the detail of the vacant units to be hidden. The detail of the displayed results is ordered according to the space (SQM), ~~this~~ This means that those units with more space will appear first. On the other hand, and in a similar manner, the tenants list can be displayed. When the button “View Tenant list” is pressed, the tenants list is displayed also arranged in order of the size of the rented space. To hide the list, a user presses the button again whose label has now been changed to “Hide Tenant list”.

[00167] Other functionality displayed by this screen includes the ability to select a unit within the site plan. A unit is selected from the numbered units in the entire site plan. As indicated in the example site plan view shown in Figure 23, unit number 1 (referenced 306) is selected. Upon selecting this unit, the application displays information related to the selected unit as shown in the bottom portion 308 of the screen. In the bottom portion 308, the application displays the unit number, the logo of the tenant that is leasing the unit (if they have one), the tenant's name, the total unit space expressed in SQM and rent roll information. If a tenant does not have an assigned logo, an empty box without content is shown instead.

[00168] Included in the information displayed in the bottom portion 308 is rent and sales history. An example graph displaying total rent per SQM versus time is shown in Figure 24. An example graph displaying total sales per SQM versus time is shown in Figure 25. It is

appreciated that other historical information graphs can be displayed to the user in accordance with the particular implementation of the application.

[00169] The application also provides to the user a more detailed property information screen such as the example shown in Figure 26. This screen is displayed by clicking on a property button in one or more ~~location~~ locations in the application. When the button is clicked, the screen, generally referenced 290, comprises an image of the selected property 292, general facts of the property 299, the major tenant 294, regional office information 296 and leasing agent information 298. As shown, this shows ~~290 displays~~ detailed information about the selected property, including the property name, address, city, country, postal code, etc. In addition, other information includes the property image, which was entered as "property info" in the admin tools application. On the right hand side of the screen, the application displays statistical information 299 about the property.

[00170] In addition to the statistical information the application also displays the Major tenants 294 related to the property. Complementing the property information, the leasing agent 296 and the regional office 298 are displayed as well. This information provides the user with telephone and addresses data from both contacts to facilitate communications with them. At the bottom portion of the screen (not shown) the application optionally displays all the files of the type "property info" that have been previously entered into the application for the property via the admin tools. The example property screen shown in Figure 26 does not have any associated files and would display the message "No Files". If the property did in fact have related files, the application displays the file names and buttons for a user to click. Clicking on a button opens the corresponding file so they can be viewed by the user. To return to the previous screen the user presses the "Back" button.

[00171] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms

[00173] What is claimed is:

1. A real estate property portfolio management system, comprising:

a central database operative to store real estate portfolio related data therein, said real estate portfolio related data including user, property, feature and financial information related to properties in said portfolio; [[and]]

a server computer in communication with ~~one or more~~ a plurality of requesting devices including one or more client computers and one or more mobile devices over a network, said server computer incorporating a web-based interface and operative to access said central database in response to search requests for real estate portfolio related data received from ~~users~~ requesting devices, over [[a]] the network, retrieve said real estate portfolio related data from said central database and serve said retrieved real estate portfolio data to said ~~users,~~ corresponding requesting devices;

a content management interface for providing content management users access to said central database via said one or more client computers with authority to access, modify, create, delete and otherwise manage portfolio property data stored in said central database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

one or more mobile devices having a software application installed therein operative to provide internal users and public users dynamic access, interactive viewing and management of the real estate property portfolio, each mobile device having an internal user interface and a public user interface;

a comparison module in said software application operative to compare one or more prospective properties to one or more non-prospective properties selected by an internal user and display comparison results to the internal user;

an offline database stored in each mobile device and operative to provide read access to a snapshot of said central database when access to said central database is not available;

said internal user interface for providing said internal users access to said system with authority to access and view property data including financial and other non-publicly available information in said central database or said offline database;

said public user interface for providing said public users access to said system with authority to access and view only property data in said central database or offline database that is publically available; and

wherein said real estate portfolio related data includes information related to currently owned real estate holdings as well as prospective properties not currently owned.

2. The system according to claim 1, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

3. The system according to claim 1, wherein said central database is local to said server computer.

4. The system according to claim 1, further comprising one or more remotely located satellite databases operative to store property related data for real estate property portfolios other than those stored in said central database, wherein data in said one or more remotely located satellite databases is periodically synchronized with ~~data in~~ said central database, said synchronization performed only in one direction from the remote satellite database towards the central database.

5. The system according to claim 1, wherein said server computer is operative to receive data requests from a software security tool over said network.

6. The system according to claim 1, wherein said server computer is operative to receive data requests from a software ~~admin~~ administration tool over said network.

7. A method of ~~viewing~~ managing a property portfolio, said method comprising:

~~providing an administrator software tool to enable a user to search, list, add, change, and delete real estate portfolio related data;~~

~~storing said real estate portfolio related data in a central database; and~~

~~providing access to said central database to users over a network.~~

storing real estate portfolio related data in a central database, said real estate portfolio related data including user, property, tenant and financial related information;

communicating on a server computer with a plurality of requesting devices including one or more client computers and one or more mobile devices over a network via a web-based interface;

receiving search requests for real estate portfolio related data from requesting devices over said network;

accessing said central database in response to said search requests for real estate portfolio related data and retrieving requested data therefrom;

serving retrieved real estate portfolio data to the corresponding requesting devices over said network;

communicating on a server computer with content management users via a content management interface for providing said content management users access to said central database via said one or more client computers with authority to access, modify, create, delete and otherwise manage portfolio property data stored in said central database, including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

communicating on a server computer with internal users via an internal user interface for providing said internal users access to said system via said one or more mobile devices with authority to access and view property data including financial and other non-publicly available information in said central database;

communicating on a server computer with public users said public user interface for providing said public users access to said system via said one or more mobile devices with authority to access and view only property data in said central database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as not currently owned prospective properties.

8. The method according to claim 7, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

9. The method according to claim 7, ~~wherein said central database resides in a server in communication with said users over the Internet~~ further comprising storing property related data for real estate property portfolios other than those stored in said central database in one or more remotely located satellite databases, wherein data in said one or more remotely located satellite databases is periodically synchronized with said central database, said synchronization performed only in one direction from the remote satellite database towards the central database.

10. A ~~method of managing a~~ real estate property portfolio management system for use on a mobile device coupled to a network, ~~said method~~ comprising:

~~receiving a request from a user over a network for property portfolio related information, said property portfolio generated from user entered property portfolio related data and stored in a central database;~~

~~in response to said request, retrieving data corresponding to said request for information about one or more properties from said central database; and~~

~~serving said requested data to said user over said network.~~

a web-based interface to a remote central database coupled to the network, said remote central database operative to store real estate portfolio related data therein, said real estate portfolio related data including user, property, feature and financial information related to properties in said portfolio;

a file interface to an offline database stored locally in said mobile device, said offline database containing a snapshot of said central database for read access in the event said central database is not available;

a user interface to receive search requests from internal users and public users for real estate portfolio property related data;

search means for querying said central database with said search requests and to receive responses in response thereto over said web-based interface, and for querying said offline database with said search requests and to receive responses in response thereto over said file interface in the event said central database is not available;

viewing means for presenting data contained in said responses to the requesting internal user or public user via said user interface;

said user interface including an internal user interface for providing internal users access to real estate portfolio related data with authority to access and view property data stored in said central database and said offline database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

said user interface including a public user interface for providing public users access to real estate portfolio related data with authority to access and view only property data in said central database and said offline database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as prospective properties not currently owned.

11. The ~~method~~ system according to claim 10, wherein said ~~central database resides in a cloud based data storage facility~~ offline database is created when said system is installed on said mobile device.

12. The ~~method~~ system according to claim 10, wherein said ~~central database resides in a server connected to the Internet~~ offline database is periodically updated with current data from said central database.

13. A method of ~~viewing~~ managing a real estate property portfolio on a mobile device coupled to a network, said method comprising:

~~providing an application on said mobile device for dynamic, interactive viewing and management of an electronic real estate property portfolio, said electronic property~~

~~portfolio generated from property portfolio data entered by a user and stored in a database;~~

~~in response to a user command to view property portfolio data, retrieving property portfolio data from said database; and~~

~~formatting and displaying property portfolio data corresponding to said user command to said user.~~

providing a web-based interface to a remote central database coupled to the network and operative to store real estate portfolio related data therein, said real estate portfolio related data including user, property, feature and financial information related to properties in said portfolio;

providing a file interface to an offline database stored locally in said mobile device, said offline database containing a snapshot of said central database for read access in the event said central database is not available;

providing a user interface to receive search requests from internal users and public users for real estate portfolio property related data;

querying said central database with said search requests and receiving responses in response thereto over said web-based interface;

querying said offline database with said search requests and receiving responses in response thereto over said file interface in the event said central database is not available;

presenting data contained in said responses to the requesting internal user or public user via said user interface;

wherein said user interface includes an internal user interface for providing internal users access to real estate portfolio related data with authority to access and view property data stored in said central database and said offline database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

wherein said user interface includes a public user interface for providing public users access to real estate portfolio related data with authority to access and view only property data in said central database and said offline database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as prospective properties not currently owned.

14. The method according to claim 13, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

15. The method according to claim 13, wherein said ~~central database resides on a remote server in communication with said mobile device over the Internet~~ offline database is created when said system is installed on said mobile device.

16. The method according to claim 13, wherein said ~~central database resides locally on said mobile device~~ offline database is periodically updated with current data from said central database.

17. A non-transitory software application product that when executed on a processor in a mobile device is operative to:

provide dynamic, interactive viewing and management of ~~an electronic~~ digital real estate property portfolio, said ~~electronic~~ digital real estate property portfolio generated from property related data entered by one or more content management users and stored in a central database at a remote location and accessible over a network, said real estate property related data including user, property, feature and financial information related to properties in said portfolio;

~~in response to a user request for data, send a request to said database for real estate property portfolio data corresponding to said user requests;~~

~~receive from said server, in response to said request, a response containing requested real estate property portfolio data; and~~

~~format and display said real estate property portfolio data received in said response to said user.~~

provide a web-based interface to the remote central database coupled over the network;

provide a file interface to an offline database stored locally in said mobile device, said offline database containing a snapshot of said central database for read access in the event said central database is not available;

provide a user interface to receive search requests from internal users and public users for real estate portfolio property related data;

query said central database with said search requests and receive responses in response thereto over said web-based interface;

query said offline database with said search requests and receive responses in response thereto over said file interface in the event said central database is not available;

present data contained in said responses to the requesting internal user or public user via said user interface;

wherein said user interface includes an internal user interface for providing internal users access to real estate portfolio related data with authority to access and view property data stored in said central database and said offline database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

wherein said user interface includes a public user interface for providing public users access to real estate portfolio related data with authority to access and view only property data in said central database and said offline database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as prospective properties not currently owned.

18. The non-transitory software application product according to claim 17, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

19. The non-transitory software application product according to claim 17, wherein said ~~database resides locally on said mobile device~~ offline database is created when said system is installed on said mobile device.

20. The non-transitory software application product according to claim 17, wherein security related data in said central database is entered and maintained by a software security tool in communication with said database.

21. The non-transitory software application product according to claim 17, wherein portfolio administration related data in said central database is entered and maintained by a software ~~admin~~ administration tool in communication with said central database.

22. A computer program product for viewing ~~an electronic~~ a digital real estate property portfolio, the computer program product comprising:

a non-transitory, tangible computer usable storage medium having computer usable code embodied therewith, the computer usable program code comprising:

~~computer usable code configured for receiving a request from a user over a network for information about one or more properties in said property portfolio, said property portfolio generated from user entered property portfolio related data and stored in a central database;~~

~~computer usable code configured for in response to said request, retrieving data corresponding to said request for information about one or more properties from said central database; and~~

~~computer usable code configured for serving said requested data to said user over said network.~~

computer usable code configured for storing real estate portfolio related data in a central database, said real estate portfolio related data including user, property, tenant and financial related information;

computer usable code configured for communicating on a server computer with a plurality

of requesting devices including one or more client computers and one or more mobile devices over a network via a web-based interface;

computer usable code configured for receiving search requests for real estate portfolio related data from requesting devices over said network;

computer usable code configured for accessing said central database in response to said search requests for real estate portfolio related data and retrieving requested data therefrom;

computer usable code configured for serving retrieved real estate portfolio data to the corresponding requesting devices over said network;

computer usable code configured for communicating on a server computer with content management users via a content management interface for providing said content management users access to said central database via said one or more client computers with authority to access, modify, create, delete and otherwise manage portfolio property data stored in said central database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

computer usable code configured for communicating on a server computer with internal users via an internal user interface for providing said internal users access to said system via said one or more mobile devices with authority to access and view property data including financial and other non-publicly available information in said central database;

computer usable code configured for communicating on a server computer with public users said public user interface for providing said public users access to said system via said one or more mobile devices with authority to access and view only property data in said central database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as prospective properties not currently owned.

23. The computer program product according to claim 22, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

24. A ~~non-transitory property portfolio management system for execution on a processor within a~~ mobile device coupled to a network, comprising:

~~computer usable code configured for implementing a data interface for retrieving real estate portfolio data from a database adapted to store real estate portfolio data; and~~

~~a software application for execution on said mobile device by users, said application operative to provide dynamic, interactive viewing and management of real estate portfolio data stored in said database.~~

a processor;

memory coupled to said processor;

one or more radios coupled to said processor, each radio operative to communicate over a wireless network;

a web-based interface to a remote central database in communication with the network and operative to store real estate portfolio related data therein, said real estate portfolio related data including user, property, feature and financial information related to properties in said portfolio;

a file interface to an offline database stored locally in said mobile device, said offline database containing a snapshot of said central database for read access in the event said central database is not available;

a user interface to receive search requests from internal users and public users for real estate portfolio property related data;

search means for querying said central database with said search requests and to receive responses in response thereto over said web-based interface, and for querying said offline database with said search requests and to receive responses in response thereto over said file interface in the event said central database is not available;

viewing means for presenting data contained in said responses to the requesting internal user or public user via said user interface;

said user interface including an internal user interface for providing internal users access

to real estate portfolio related data with authority to access and view property data stored in said central database and said offline database including financial data, non-public data, broker data, location and demographic data, prospective data, leasing agent data, statistics data and tenant data;

said user interface including a public user interface for providing public users access to real estate portfolio related data with authority to access and view only property data in said central database and said offline database that is publically available; and

wherein said real estate portfolio related data includes information related to real estate holdings currently owned as well as prospective properties not currently owned.

25. The ~~system~~ mobile device according to claim 24, wherein said central database resides in a ~~cloud based~~ data storage facility accessible over the Internet.

26. The ~~system~~ mobile device according to claim 24, wherein said ~~database resides in a server in communication with said mobile device over the Internet~~ offline database is created when said system is installed on said mobile device.

27. The ~~system~~ mobile device according to claim 24, wherein said ~~database resides locally on said mobile device~~ offline database is periodically updated with current data from said central database.