

What is claimed is:

1. A computer implemented method including:

creating a model based on structured data, the structured data including data structures, each data structure having data elements, each data element having fields, each field having a name, wherein creating the model includes:

creating an object in the model based on a data structure in the structured data;

translating a name of a field in the data structure to a natural language name;

creating a field on the object having the natural language name;

creating a relationship field on the object based on a relationship between data structures in the structured data;

generating a hierarchy of objects in model, the hierarchy organizing the objects with respect to a starting object according to relationship fields on the objects;

generating a user interface including elements for one or more of the objects in the hierarchy, wherein the user interface enables a user to create a report and filter the report using the natural language name;

receiving a user selection of an element from the elements;

generating a report including:

identifying a data structure corresponding to the element;

obtaining data from at least one field in the identified data structure in the data source; and

presenting the data to the user.

2. A non-transitory computer storage medium encoded with computer program instructions that when executed by one or more computers cause the one or more computers to perform operations comprising:

creating a model based on structured data, the structured data including data structures, each data structure having data elements, each data element having fields, each field having a name, wherein creating the model includes:

creating an object in the model based on a data structure in the structured data;

translating a name of a field in the data structure to a natural language name;

creating a field on the object having the natural language name;

creating a relationship field on the object based on a relationship between data structures in the structured data;

generating a hierarchy of objects in model, the hierarchy organizing the objects with respect to a starting object according to relationship fields on the objects;

generating a user interface including elements for one or more of the objects in the hierarchy, wherein the user interface enables a user to create a report and filter the report using the natural language name;

receiving a user selection of an element from the elements;

generating a report including:

identifying a data structure corresponding to the element;

obtaining data from at least one field in the identified data structure in the data source; and

presenting the data to the user.

3. A system comprising:

one or more computers and one or more storage devices storing instructions that are operable, when executed by the one or more computers, to cause the one or more computers to perform operations comprising:

creating a model based on structured data, the structured data including data structures, each data structure having data elements, each data element having fields, each field having a name, wherein creating the model includes:

creating an object in the model based on a data structure in the structured data;

translating a name of a field in the data structure to a natural language name;

creating a field on the object having the natural language name;

creating a relationship field on the object based on a relationship between data structures in the structured data;

generating a hierarchy of objects in model, the hierarchy organizing the objects with respect to a starting object according to relationship fields on the objects;

generating a user interface including elements for one or more of the objects in the hierarchy, wherein the user interface enables a user to create a report and filter the report using the natural language name;

receiving a user selection of an element from the elements;

generating a report including:

identifying a data structure corresponding to the element;

obtaining data from at least one field in the identified data structure in the data source; and

presenting the data to the user.

4. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein translating a name includes translating the name using a look up table.

5. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the relationship field is a reference field representing a relationship between one data element in the data structure to one second data element in a second data structure.

6. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the relationship field is a collection field representing a relationship between one data element in the data structure to second data elements in a second data structure.

7. The method, or the non-transitory computer readable medium, or the system, of claim 6 wherein the user interface includes aggregation functions that can be used on the collection field.

8. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the relationship field is a parent-child field representing a relationship between one data element in the data structure to a second data element in the data structure.

9. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the structured data is a structured database and the data structure is a table in the structured database.

10. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the structured data is one or more files.

11. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein generating the report occurs in response to receiving the user selection.

12. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the user interface enables an interactive creation of reports using a what-you-see-is-what-you-get interface and wherein the user interface provides visual feedback of the report including data values in near-real-time prior to finalizing the report.

13. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein generating a user interface further includes receiving a selection of the starting object from a user.

14. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein the natural language name includes at least one character in a set of restricted characters for the structured data.

15. The method of claim 1, or the non-transitory computer readable medium of claim 2, or the system of claim 3, wherein creating a relationship field on the object based on a relationship between data structures in the structured data includes creating a relationship object to represent a primary key – foreign key relationship in the structured data.