

Claims

1. A method, comprising:
communicating, by a device comprising a processor via a view to a view model, a request for view-specified data associated with the view;
receiving, by the device via the view model, the request for the view-specified data;
making, by the device via the view model, one or more asynchronous requests to a data model for information corresponding to the view-specified data;
communicating, by the device via the view model, a first promise to the view to provide the view-specified data in response to the request for the view-specified data;
registering, by the device via the view, a callback for rendering the view upon receipt of the view-specified data;
performing, by the device via the view, prior to the view receiving the view-specified data, a task related to the rendering the view;
obtaining, by the device via the data model, a dataset including the information;
providing, by the device via the data model, the information to the view model in response to the one or more asynchronous requests; and
communicating, by the device via the view model, the view-specified data, based upon the information returned to the view model, from the view model to the view to fulfill the first promise.

2. The method of claim 1, wherein the obtaining the dataset including the information at the data model comprises communicating with a data source connected to the device over a network, and further comprising, communicating a second promise from the data model to the view model, receiving the dataset from the data source, and communicating at least part of the information from the data model to the view model to fulfill the second promise from the data model to the view model.

3. The method of claim 2, further comprising, receiving, by the device via the data model, a third promise from the data source at the data model.

4. The method of claim 2, further comprising, caching, by the device via the data model, at least part of the dataset received from the data source in a cache coupled to the data model.

5. The method of claim 4, further comprising, receiving, by the device via the data model, another request for requested information, determining, by the device via the data model, that the requested information is in the cache, and returning, by the device via the data model, the information from the cache in response to the other request.

6. The method of claim 1, wherein the making the one or more asynchronous requests to the data model for information corresponding to the view-specified data comprises making at least two separate asynchronous requests for different parts of the information.

7. The method of claim 6, further comprising caching, by the device via the data model, at least part of the dataset in a data model cache, and wherein providing the information

from the data model to the view model in response to the one or more asynchronous requests comprises providing a first part of the information from the data source in response to a first asynchronous request of the one or more asynchronous requests, and providing another part of the information from the cache in response to a second asynchronous request of the one or more asynchronous requests.

8. The method of claim 1, wherein the task related to rendering the view comprises communicating, by the device via the view to another view model, another request for other view-specified data.

9. The method of claim 1, further comprising, communicating, by the device via the data model, a second promise from the data model to the view model in response to the one or more asynchronous requests for the information.

10. The method of claim 1, wherein the task related to rendering the view comprises instructing, by the device via the view, a child view of the view to render at least a portion of the child view on a display of the device.

11. A system comprising:

a processor; and

a memory communicatively coupled to the processor, the memory having stored therein computer-executable components, comprising:

a view model configured to be coupled to a view object;

a data model configured to be coupled to the view model; and

wherein the view model is further configured to receive a request for view-specified data from the view object, asynchronously request information corresponding to the view-specified data from the data model, and communicate a first promise from the view model to the view to provide the view-specified data in response to the request;

wherein the view object is configured to:

register a callback for rendering the view object upon receipt of the view-specified data,

perform, prior to the view receiving the view-specified data, a task related to the rendering the view object;

wherein the data model is further configured to obtain a dataset including the information from a data source external to the system, and return the information to the view model; and

wherein the view model is further configured to communicate a response comprising the view-specified data to the view object based upon the information to fulfill the first promise.

12. The system of claim 11, wherein the task related to rendering the view object comprises communicating, by the view object to another view model, another request for other view-specified data.

13. The system of claim 11, wherein the task related to rendering the view object comprises instructing, by the view object, a child view object of the view object to render at least a portion of a child view object on a display device.

14. The system of claim 13, wherein the view object is further configured to, in response to receiving the view-specified data, render the view object over the child view object on the display device.

15. The system of claim 11, wherein the task related to rendering the view object comprises rendering, by the view object, at least a portion of the view object without the view-specified data on a display device.

16. The system of claim 15, wherein the view object is further configured to, in response to receiving the view-

specified data, render the view-specified data in the rendered at least the portion of the view object on the display device.

17. A non-transitory computer-readable medium having instructions stored thereon that, in response to execution, cause a device including a processor to perform operations comprising:

- communicating, via a view to a view model, a request for view-specified data associated with the view;
- receiving, at the view model, the request for the view-specified data;
- returning, by the view model, a first promise to the view to provide the view-specified data;
- registering, via the view, a callback for rendering the view upon receipt of the view-specified data;
- performing, via the view, prior to the view receiving the view-specified data, a task related to the rendering the view;
- making, via the view model, an asynchronous request to a data model for information corresponding to the view-specified data;
- receiving, via the view model, a second promise from the data model to provide the information;
- making, via the data model, an asynchronous request to a data source external to the device for a dataset corresponding to the information;

obtaining, via the data model, the dataset in response to the request to the data source, the dataset including the information;

returning, via the data model, the information to the view model to fulfill the second promise; and

returning, via the view model, the view-specified data based upon the information returned to the view model, to the view to fulfill the first promise.

18. The non-transitory computer-readable medium of claim 17, wherein the task related to rendering the view comprises communicating, by the device via the view to another view model, another request for other view-specified data.

19. The non-transitory computer-readable medium of claim 17, wherein the task related to rendering the view comprises instructing, via the view, a child view of the view to render at least a portion of the child view on a display of the device.

20. The non-transitory computer-readable medium of claim 17, wherein the task related to rendering the view comprises rendering, via the view, at least a portion of the view without the view-specified data on a display of the device.