Use Cases

Anonymous User
Anyone who accesses the site can:
1. Accesses the service via its website or mobile application.
2. The service presents the user with a map of available buoy locations.
3. Selects a buoy on the map or directly enters its buoy number.
4. The service presents the user a list of measurements offered by the selected buoy (like wind speed or wave height).
5. Selects a measurement and selects the desired visualization (graph or table), and gets a window of past readings for the given measurement.
6. Selects a window of predictions to augment the displayed graph or table. For instance, the user decides he/she wants a projection of the measurement three hours into the future, and the graph or table will incorporate the projected values for the measurements.
7. Can repeat use cases 5 and 6 to have multiple graphs and tables for various measures available simultaneously for easy visual inspection of measurement correlations. For instance, the user could go through 5 and 6 to create a graph of wind speed, then go through 5 and 6 again to create a graph of wave height, and view the two graphs side by side.

Named User
Users who have performed a federated login using Facebook or Google credentials can:
1. Create an alert to notify them of predicted times when specific conditions are met and the email to which the alert will be sent. For example, the user can request to be notified if the buoy closest to Corpus Christi, TX is predicted to have wave heights above 4 feet in the next three days.
2. Share the graphs and tables he/she has set up for a particular buoy (using steps 5 and 6 of an anonymous user) with others via email.

Administrator
Named users who have an ‘administrator’ access level can:
1. Access the service’s administrator dashboard.
2. View a list of the service’s named users and their access.
3. Search the list of the service’s named users by name.
4. Grant/revoke a selected named user additional access. For example, an administrator could select a named user and grant them administrator access, at which point he/she could also access and operate the administrator dashboard.
**IT Manager**

Named users who have an ‘IT manager’ access level can:

1. Access the service’s IT manager dashboard.
2. View site traffic.
3. View system logs.
4. Restart system.

**System Developers (us)**

1. Add/remove/configure predictive models.
2. Add/remove types of data sources the system can subscribe to. For example, real-time NOAA data is a particular type of subscribable data source.
3. Add/remove subscriptions to data sources. For example, an individual real-time NOAA buoy feed is a particular data source.
4. Add new channels for distributing alerts and shares (like allowing alerts via text message).
5. Introduce new access levels to the system (in addition to administrator or IT manager).
6. Determine the original set of named users with administrator access levels.