# **CMPUT 391**

# **Project: Ocean Observation System**

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**General System Architecture**

project folder

|---WEB-INF

| |---classes

| |---util

| | |---\*object.java

| |---\*servlet.java

|---\*.jsp

All modules: Login, Sensor and user management, Subscribe, Uploading, Search, Data analysis.

Each module is constructed by its .jsp files and .java files.

The .jsp files are front-end of the system that display the user interface as a website to receive actions from users then send to the back-end that are handled by servlet classes in .java files.

### **Login Module**

The login module is contains two parts, the login section and personal/password change section.

In the login section the user is given inputs to input a username and password. Depending on what type the user is they are given certain areas of the website to view. For example the if the user is administrator then they are given the view to create and change users, but this view is not available to the scientist or data manager.

Module's architecture:

First part: login.jsp, LoginServlet.java.

login.jsp will display a form for user to enter his user\_name and password then send to the LoginServlet to handle the SQL queries.

Second part: change\_info.jsp, UpdatePassServlet.java, UpdateInfoServlet.java

### **Search Module**

This module allows the user to search from the database for sensors that they are subscribed to between different dates. The first field is the inputing keywords for searching audio and image description or seaching scalar values. The second is searching location of sensors. The sensor type field allow the search of different sensors. Finally the last field is setting the range of dates you are searching between.

They can either input keyword/value, sensor type or location or all of them.

This is all done in one page, the search page.

### **Sensor and User Management Module**

This module allows only the admin to add delete sensors and also admin is the only one that can mange users. The admin can create/delete users and also to update all information of the user.

### **Subscribe Module**

This module available only to the scientist allows the scientist to subscribe to different sensor datas. They do not subscribe to sensors directly. Once in the subsription page the scientist has two option add subscription and delete/view subscription. The add subscrition will list subscritions that are available to be subscribed. Once a data has been subscribbed to the data will be removed from view. Delete/view subscriptions lists the scientist's subscriptions and once the scientist unsubscibs the data will disappear. The scientist can click on the sensor page to see more detail.

### **Uploading Module**

This modual is only for the data manager. He or she will click on the sensor page and to the left he will be able to see the different types of sensors that he/she can add. Although this page is available to the scientist and the admin the left table will change depending on who accesses that page.