Criterion B

Record of tasks

Task number	Planned action	Planned outcome	Time estimated	Target completion date	Criterion
1	Find a client	Have a client	A week	December 7, 2018	A
2	Initial Interview	Know the problem	Half an hour	December 9, 2018	A
3	Construction of prototype	Prototype to talk to client about	Half an hour	December 10, 2018	A
4	Problem statement	Specify problem in narrative text	15 minutes	December 12, 2018	A
5	Describe the scenario	know the context better	15 minutes	December 12, 2018	A
6	Criteria for success	List of features to be implemented	30 minutes	December 12, 2018	A
7	More discussion of prototype with client	Further changes to prototype	2 hours	December 14, 2018 - Jan 8, 2019	A
8	Began Input & Output Document	Have a reference when creating the GUI	10 minutes	Jan 9, 2019	B
9	Began Class Diagrams Document	Reference when coding classes	10 minutes	Jan 9, 2019	B
10	Began Prototyping Process Document	Illustrate development process, be able to look back and	10 minutes	Jan 9, 2019	B

		compare				
11	Began Chronological Development Plan Document		10 minutes	Jan 9, 2019	B	
12	Began Testing Plan Document		10 minutes	Jan 9, 2019	B	
13	Started the GUI		10 minutes	Jan 21, 2019	B/P	
14	Started the programming		1 hour	Jan 21, 2019	B	P
15	Continued programming (validating user input)		1 hour	Jan 23, 2019	B	P
16	Further programming of application	Completion of Initial GUI Layout & Prototypes of methods	1.5 hours	Feb 1, 2019	B	P
17	Began Criterion C Introduction	Describe desired state of program / desired functionality	10 minutes	Feb 2, 2019	C	
18	Began Summary List of All Techniques	List all current techniques	15 minutes	Feb 2, 2019	C	
19	Began Structure of the Program	Write current structure of program	10 minutes	Feb 2, 2019	C	
20	Began Data Structures Used	List all current data structures	10 minutes	Feb 2, 2019	C	

21	Software Tools Used	Completed Software Tools Used	15 minutes	Feb 2, 2019	C	
22	Further Programming of Application	Completion of GUI Layout	1 hour	Feb 24, 2019	B / P	
23		Complete Integration of Web APIs and related methods	1 hour	March 2, 2019		
24		Cleanup of code and refactoring of classes	1 hour	March 4, 2019		
25		Configuration of Results Table	30 minutes	March 23, 2019		
26		Bug Fixes & API Verification	30 minutes	March 27, 2019		

Chronological Development Plan

GUI
- Design the Initialize tab
- organize/ structure the tab to look simple and usable
  - Remove any unnecessary elements
  - Center content for easy reading
- Design the results tab
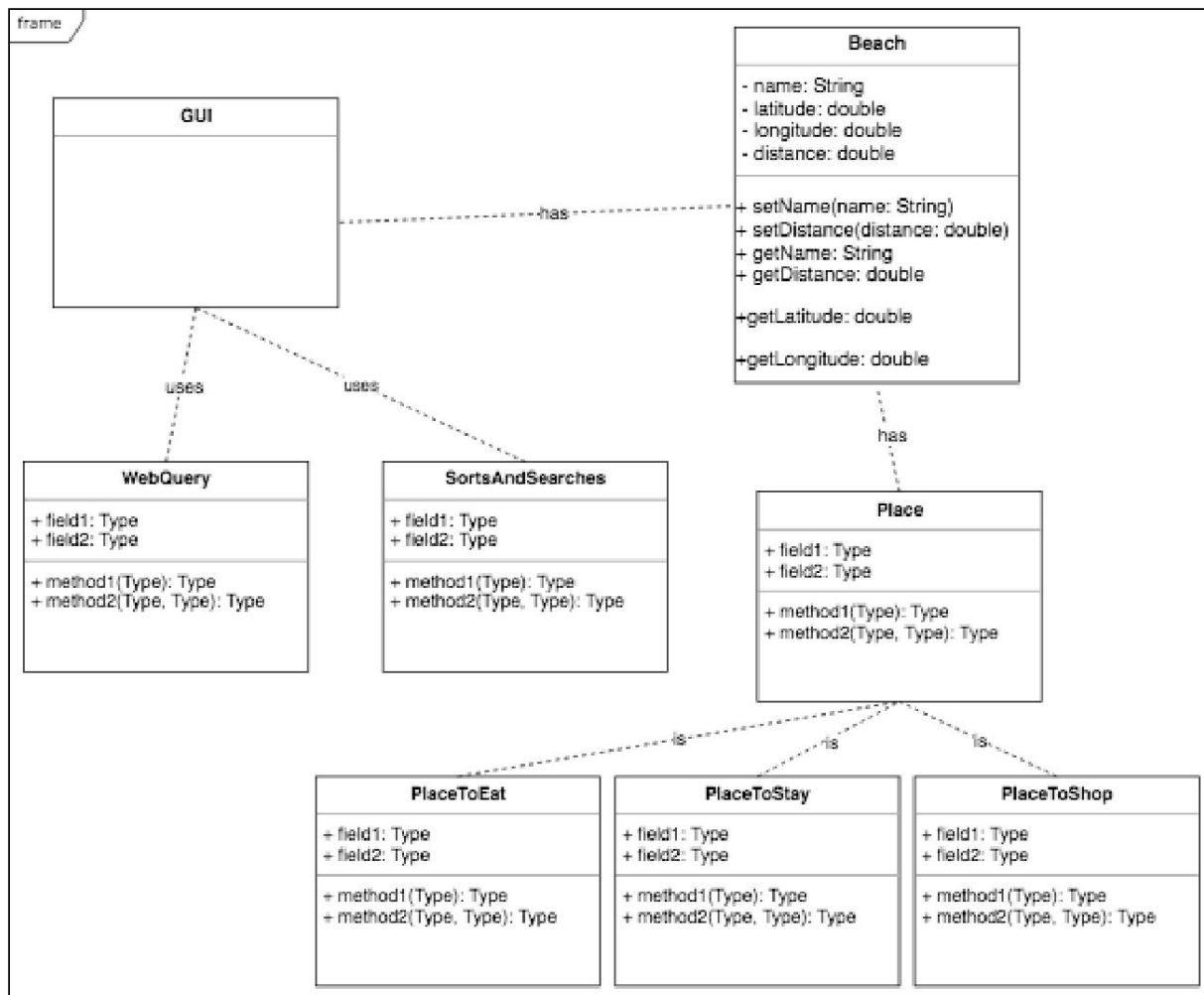 - Create proper headings for each column

Template Classes
- Place class
  - Add all qualities
    - Name
    - Links
    - Coordinates

Sorting & Searching
- Implement the selection sort, which will organize data by the selected quality.
- Implement a search, which is tailored to each quality
  - Certain weather condition
  - Distance range
  - Name of place

UML Diagram

Input & Output
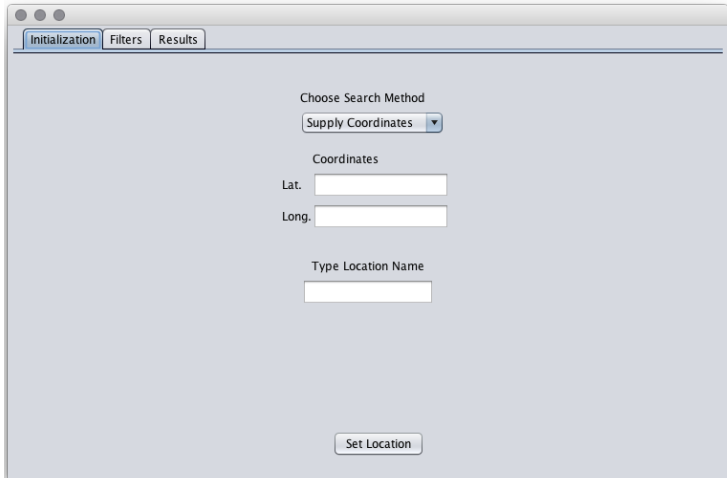
Input	Data Type	Example
Chosen Pane	TabbedPane	"Initialize"
Search Method	TabbedPane	"Coordinates"
Latitude	double	38.079447
Longitude	double	-81.470490
Address	String	"Woodbridge, VA"
Search	Button	n/a
Sort	ComboBox	Distance

Output	Data Type	Example

Dialog Box	Text	"Address verified!"
Dialog Box	Text	"Error! Could not verify!"
Results Table	Table	n/a

Testing Plan

Initialization Tab

Things Done on this Tab

- Inputs:

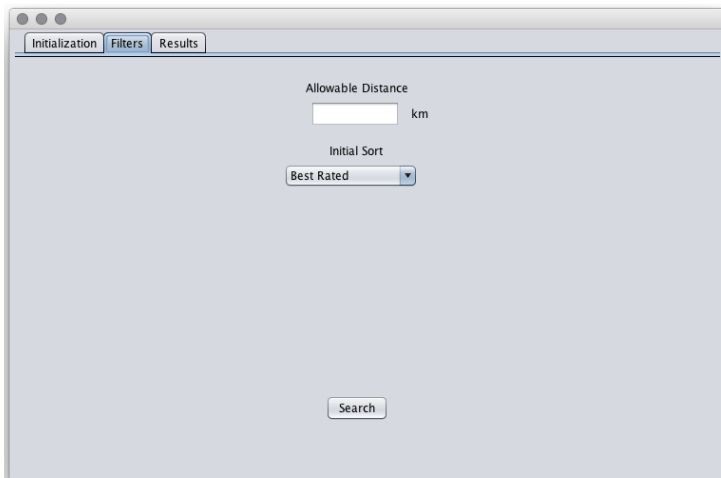•   Longitude and latitude are input
•   Location name is input

- Internal Functioning

•   ...

Input	Normal	Border	Abnormal	Extreme
Latitude	37.528521	0.0 90.0	Characters other than numbers and period *- Warning dialog popup, user sent to try again*	Very precise decimals, very large values *- Limited to 64 bits of precision* *- additional precision ignored*

Longitude	25.123531	0 180.0	Characters other than numbers and period - *Warning dialog popup, user sent to try again*	Very precise decimals, very large values - *Limited to 64 bits of precision* - *additional precision ignored*
Location name	"Woodbridge, VA"	N/A	No entry, user must retype	N/A
Search Method	Selected value of "Supply Coordinates"	N/A	Selected method's respective input left blank, error displayed, must retype	N/A

Filters Tab

Things Done on this Tab
- Inputs:

•   Distance is input
- Internal Functioning

•   Initial Sort

Input	Normal	Border	Abnormal	Extreme

| Allowable Distance | 2.34 | 0.0 20,036.0 | Characters other than numbers and period - *Warning dialog popup, user sent to try again* | Very precise decimals, very large values - *Limited to 64 bits of precision* - *additional precision ignored* |