GUI Deliverable 3: Prototype implementation

You should develop one interactive prototype based on one of your designs. Build the interfaces using Java and subclassing from AWT, Swing, or JavaFX where appropriate. The focus of this work is on the user interface – do not spend time developing back end programs such as database systems. We will provide support for getting Weather data. Use mouse input to emulate touch input.

We are interested in how well your implementation fits your design as well as demonstration of your programming skills. You should be able to switch between the two screen sizes in real time.

Your prototype **must** run on the standard configuration of ITL computers.

Deliverable

Your development progress will be assessed each week during your regular ITL lab times. It is your responsibility to ensure that your code progress is assessed in the lab, and bear in mind that labs may be busier at different times of the course.

The final deliverable is submitted electronically as a set of Java code and source and accompanying documents. It is important that your code runs without you present, and you should comment your code thoroughly. You should provide a Readme file that explains how to run your user interface, what libraries you have used, and if it should be run on Windows or Linux ITL computers. You should also provide a brief document detailing any deviations from your design with rationale for the changes. We will evaluate your programs by attempting to interact with them on a range of computers. Note, we are not expecting a user manual, as the prototype should be intuitive and self explanatory.

Submit your code and supporting files electronically as a zipped set of files as below:

- .java and .class files and and netbeans files needed to compile and run your code. You may also additionally submit a jar file if that makes running your code easier

- any graphic and other media files needed by your program

- readme_groupXX.txt which explains how to run your code and what libraries are used (replace XX with your group number)

- changes_groupXX.pdf which briefly (a few sentences) explains any deviations from your design with rationale for the changes e.g. "our design was in 3D, but we didn't have time to get OpenGL working with Java, so we mocked it up in 2D instead" (replace XX with your group number)

Prototyping Marking Scheme

This part of the coursework is marked in terms of the following percentages of the marks allocated for the prototyping part for each interface.

Assessment of progress in lab times (up to 2 marks per lab)	Up to 10
Fit to design and requirements identified in Deliverable 2	Up to 20
Structure of code I.e. good Model-View structure, and allowing real-time switch between two different sized views	Up to 10
Interactivity I.e. how well the system interacts	Up to 20
Use of layout managers I.e. using more sophisticated layout than absolute positioning	Up to 10
Advanced development: Advanced interaction and programming e.g. developing own widgets/ inheriting from AWT/ Swing, building UI from scratch without IDE Advanced graphic design e.g. professional quality graphics elements, layout, and animations	Up to 30