

LAB 6

Objectives of Lab 6

1. Take Quiz 2 on Blackboard Learn
2. Perform a team huddle to check readiness and meet with TA Shepherd for approval
3. Create a System Overview Design
4. Create a Screen Hierarchy Diagram
5. Team Huddle

Step 1: Take Quiz 2

Go to Blackboard and take quiz 2 in Week 6 Lab section. This is closed book, closed world, etc. Be silent and put your phone on silent or turn it off and place it away or at least behind your laptop, face down. There are 10 questions and you have 30 minutes to take it.

Step 2: Huddle

Meet with your team check for readiness to proceed to the design phase. Your TA should be giving you the go ahead for the next phase. Be ready to take some feedback on scope, timelines, gantt charts, and prototypes.

Step 3: Create a System Overview Diagram

An Overview Diagram helps people understand the following:

System boundary – The boundary tells where the system begins (or ends). Things inside the boundary are part of the system; things outside the boundary are not part of the system; anything that crosses the boundary is an interface.

System components – Try to identify the major parts of your system from a technical perspective. Typical major components are:

- Screens or Web pages that your system displays
- Databases that you design and whose data is part of your system
- Files (e.g., data that is part of the system but not stored in a database)
- Code that you write or incorporate into your system

1.A - Use Figure 6-1 to start to define your system.

- Fill in the system name
- Identify things that cross the system boundary: does your system interact with people? This is a user interface. Does your system interact with another system? This is a data interface. Does your system exchange messages with another system? This is a programming interface. Draw these in using arrows to represent things coming into or out of your system. Label each arrow.

1.B - Use Figure 6-2 to identify some of the components that exist within your system boundary

- If you identified a user interface above, create a component to represent the code and screens of the user interface.
- If there is data flowing into or out of your application, list a file or database where your system will store the data (if it gets stored and not used immediately)
- List one or more component to represent the software in your system. If you can name major functional parts of the software, that would be a reasonable starting point. If not, show one block to represent the code.

1.C - Use Figure 6-3 to combine the information in 6-1 and 6-2 into a single system overview diagram

Step 4: Create a Screen Hierarchy Diagram

A screen hierarchy diagram provides a single picture showing all the screens in the system and the basic navigation paths connecting the screens. Typically, the “home” or “landing” screen that is displayed when the system starts is shown at the top (or on the left). Pages that can be reached from that page are shown below the home page, and so on. Note that not all possible navigation paths need be shown. For example, if every screen has a Help button, all those links are often not shown in this diagram.

Be sure to provide a caption for each of your diagrams.

Step 5: Team Huddle

Discuss status of all deliverables to date and plans for continuing work.

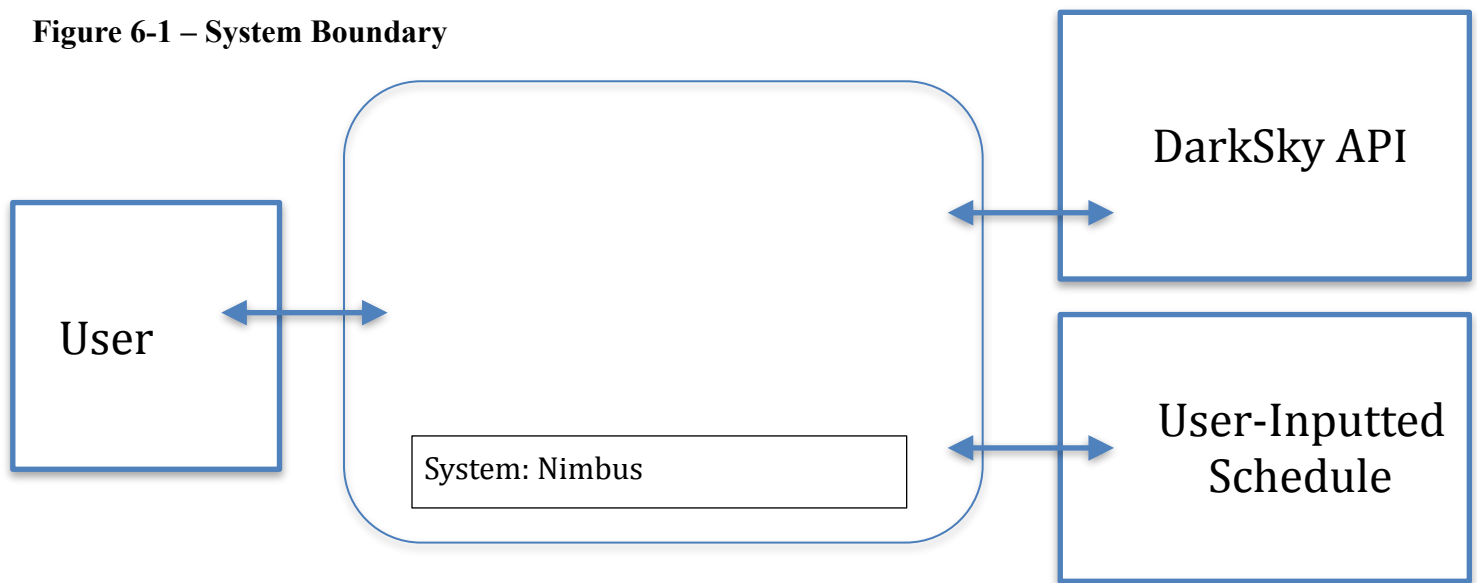
What to Turn In

In order to earn full credit for this lab, each team must submit:

1. System Boundary (see figure 6-1)
2. List of Major System Components (see figure 6-2)
3. System Overview Diagram (see figure 6-3)
4. Screen Hierarchy Diagram (see figure 6-4)
5. Updated Project Gantt Chart

Rubric – 50 points

Item	Best	Average	Worst
Huddles (5 pts)	Quick, efficient, informative. All members are heard and valued.	Quick, efficient, and/or informative. All members are heard and valued.	Took too long, not efficient and/or all members not heard.
System Boundary (10 pts)	Diagram is complete, with arrows and labels. Diagram represents all interfaces between agents.	Diagram is complete with arrows and labels. Diagram represents the major interfaces between agents.	Diagram is incomplete in some way, lacking arrows and/or labels. Does not represent even the major interfaces.
List of Major System Components (10 pts)	List contains more than 5 components with unique names and good descriptions	List contains at least 5 components with unique names and good descriptions	List contains fewer than 5 components or names and descriptions are not helpful
System Overview Diagram (10 pts)	All components and agents from prior steps are present. Interactions and connections are defined with lines and arrows	Most components and agents from prior steps are present. Interactions and connections are defined with lines or arrows	Some components and agents from prior steps are present. Interactions are not clear.
Screen Hierarchy Diagram (10 pts)	All screens for the defined system are present in a top down or left right hierarchical chart with arrows to show typical flow.	Most screens for the defined system are present in a top down or left right hierarchical chart with lines to show connections	Some screens for the defined system are present, the chart may not be hierarchical, or they chart may lack connections
Updated Gantt Chart (5 pts)	Gantt chart shows accurate history of the prior phases and reasonable tasks for the design phase. Prototype phase is present but may not be fully defined.	Gantt chart shows history of the prior phases and reasonable tasks for the design phase. Prototype phase may be present but may not be well defined.	Gantt chart is incomplete or inaccurate in some substantive way. For example, no flow of tasks, no dependencies evident, no start and end dates.

Figure 6-1 – System Boundary**Figure 6-2 – Possible system components**

DarkSky Weather API - Weather API used to fetch information about the weather.

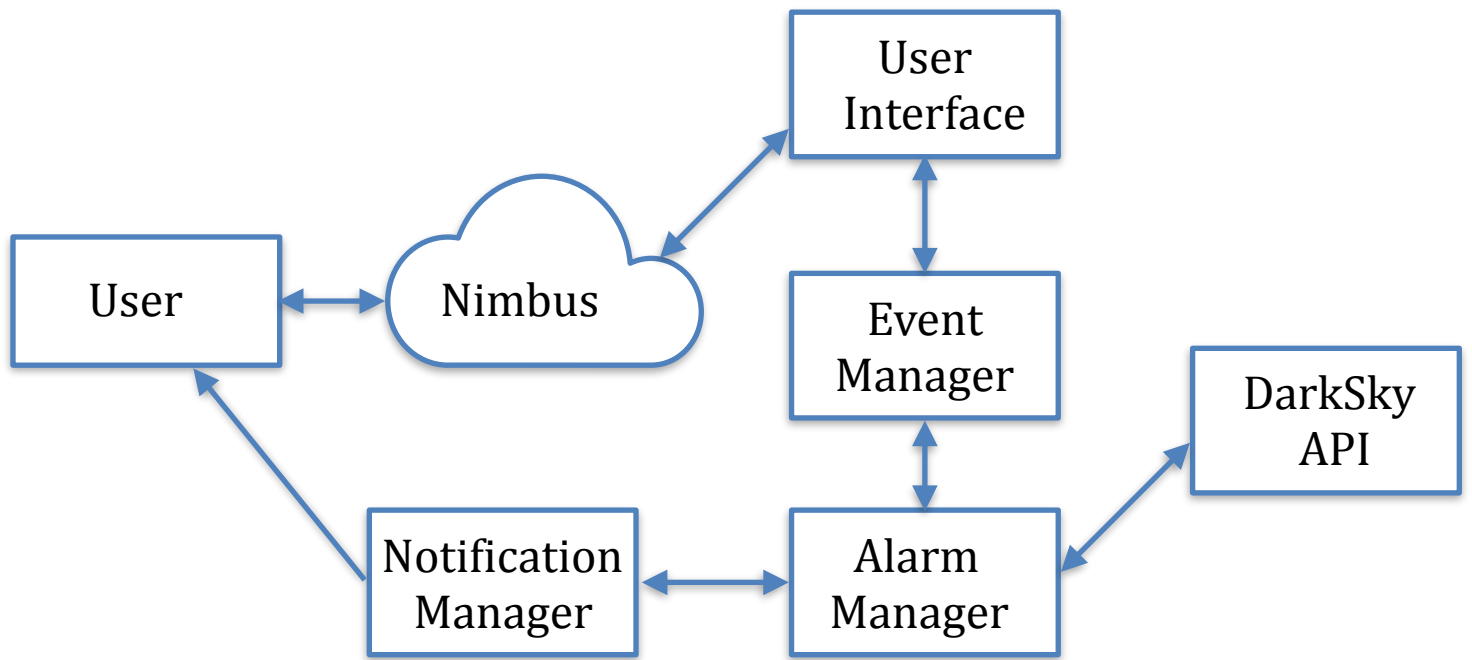
Alarm Manager - Schedule and push notifications at specified times each week.

Nimbus - Weather app for students and commuters.

User Interface - Used to input schedule.

Event Manager - Stores information about schedule for future use.

Notification Manager - Displays notifications.

Figure 6-3 – System Overview Diagram**Figure 6-4 – Screen Hierarchy Diagram**