Project 1 is a two-week assignment. The first week deliverables are to include the design components of the solution to the assignment. Each of the following statements and questions are suggested to help you consider the various aspects of the problem and help lead you to specify and design the components you will need to implement a solution.

A design document is to be submitted for part A of the project. The document should include descriptions and discussion for the items below. Do not just answer the questions. The list below are topics you should consider in your design. This information can form the bulk of the Readme required for the project.

- Describe the events associated with the activity on each device including arrival, use and exit.
- Write a description and design for each of the major event queues.
- Describe how time is advanced as the simulation progresses.
- How does the priority queue work? What is its purpose? How are the components of the queue ordered?
- Describe the sources for entries in the priority queue. When are the events entered in the queue?
- How do event time values get set for the various entries in the priority queue?
- When are events removed from the priority queue?
- How and when are new processes created and inserted in the priority queue as the simulation continues to execute?
- How is the actual start time determined for a new process entering the system?