



HUMAN COMPUTER INTERACTION –CS351

Lab-Assignment #6: Software Process

Computer Science Department

2018-2019



Exercise #1:

Automated teller machine (ATM)

Definition: a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller.

Case Scenario: A local bank intends to install a new automated teller machine (ATM) to allow users (i.e., bank customers) to perform basic financial transactions. Each user can have only one account at the bank. ATM users should be able to view their account balance, withdraw cash (i.e., take money out of an account) and deposit funds (i.e., place money into an account).

Answer the following question using given information:

- a) What's the name of the software?
- b) What's the purpose (Goal) of the software? What problem does it solve?
- c) What should the system do? (System Requirements)
- d) What are the system components?
- e) How the system should achieve its goal? (System Design)
- f) Design an interface of the system?
- g) Did the system fulfill its requirements?

Exercise #2:

Case Study:

- A software solution is required to display information about incoming and outgoing flights to the public at Palm Island Airport. The airport terminal will have a number of large display screens (approximately 42" in size, measured horizontally) for viewing by the public. The display screens will provide information about flight arrivals and departures at Palm Island Airport.
- It is envisaged that this information will require more than one page. Therefore, each page will be required to display for not less than 10 seconds, and not more than 15 seconds, before moving onto the next page in the cycle. Each time a page loads, it must show the latest information available at that time. Airport branding and the current time and date must also to be shown on all pages that are visible to the public.
- The layout should be designed in such a way that members of the public can quickly find the appropriate flight and check its status. Any flight that has been cancelled must stand out. The information should be readable from a distance of not less than four metres. At peak times, passengers are likely to seek information about one of five flights arriving and/or departing (potentially ten flights in total: up to five arrivals; up to five departures).
- The solution also requires that administration staff be able to: insert, edit and delete flight information. The administration user-interface must be intuitive and efficient. The system must also allow more than one administrator to update flight information simultaneously (not necessarily details of the same flight). When an administrator completes an update, that information must be available to the public at the next screen (or page) refresh.
- The public information necessary about flights arriving is:
 - Flight Number
 - Where the flight is coming from (eg airport or city)
 - Expected time of arrival
 - Current status of flight (eg en-route, landed, delayed, cancelled, diverted, contact operator)

- Gate of arrival
- The public information necessary about flights departing is:
 - Flight Number
 - Destination of flight (eg airport or city)
 - Expected time of departure
 - Current status of flight (eg As scheduled, gate open, boarding, last call, gate closed, airborne, delayed, cancelled, contact operator)
 - Departure gate
- The client would also like to make this information accessible to members of the public when using one of the internet connected information kiosks situated around the airport, and for users visiting the Palm Island Airport website. Legislation must be strictly adhered to as applicable (eg as relevant from copyright, data protections, accessibility and disability discrimination, etc)