**FAST-NUCES Assignment # 2 Introduction to Software Engineering**

**Note:** Plagiarized content will not be given any credit. Each question carries equal marks.

1. Based on your experience with a bank ATM, draw an activity diagram that models the data processing involved when a customer withdraws cash from the machine.
2. For the MHC-PMS (Mental Health Care Patient Management System), propose a set of use cases that illustrates the interactions between a doctor, who sees patients and prescribes medicine and treatments, and the MHC-PMS.
3. Draw state diagram of the control software for an automatic washing machine that has different programs for different types of clothes.

**FAST-NUCES**   **Assignment # 3**       **Introduction to Software Engineering**

We have discussed the following architectural patterns in the class.

1. Model View Controller
2. Layered
3. Repository
4. Client Server
5. Pipe and Filter

For each pattern, an example of a software system was discussed employing that pattern for its architectural design.

Your task is to look up an example of a software system (other than the ones discussed in the class) whose architecture is based on each of the above patterns.

You have to use your own words to describe the architecture of a software system based on each pattern after looking it up on the internet. Secondly, for each example, you have to cite the website or the paper from which you have taken the information.

Make sure the content is neither plagiarized from the internet (copied and then pasted as it is) or from a classmate. Zero credit will be given to any material that is not cited (i.e. the reference for the internet source is not given).