IT-314 SOFTWARE ENGINEERING LAB-1

CHOOSING SOFTWARE MODEL

NAME: DHRUV LAD
STUDENT ID: 202101497
GROUP: 6

a) A simple data processing project -> WATERFALL MODEL

- A simple data processing project is a Waterfall Model because the requirements for the project will be given well in advance with minimal or no changes.

b) A data entry system for office staff who have never used computers before. The user interface and user-friendliness are extremely important. -> PROTOTYPING MODEL

- It is a prototyping model because the group of people who have been assigned this project do not have the experience of using the computers before.

c) A spreadsheet system that has some basic features and many other desirable features that use these basic features. -> INCREMENTAL WATERFALL METHOD

- It is an Incremental Waterfall model because firstly some basic knowledge of the software is required which can be achieved by waterfall model and new features would be required to be added in the future which can be achieved by incremental model.

d) A web-based system for a new business where requirements are changing fast and where an in-house development team is available for all aspects of the project. -> INCREMENTAL MODEL

- It is a spiral Incremental model because new features are to be added which can be achieved by incremental model and the requirements are changing fast and are unclear which can be added on every iteration by measuring risk and specific experience which can be achieved by spiral model.

e) A Web-site for an on-line store which has a long list of desired features it wants to add, and it wants a new release with new features to be done very frequently. -> EVOLUTIONARY PROTOTYPING MODEL

- It is a website for an online store and thus a good user interface is required and progress needs to be visible and also frequent changes need to take place and thus it could be achieved by evolutionary prototyping.

f) A system to control anti-lock braking in a car. -> WATERFALL MODEL

- It is a waterfall model because anti-lock braking ina car is a safety critical system. For it's proper functioning, the analysis and design requirements should be achieved without any flaws before it's implementation.

g) A virtual reality system to support software maintenance. -> INCREMENTAL MODEL

- It is an Incremental model because the requirements for the system keep on changing and it cannot be presumed before implementing and thus it would require complex programming.

h) A university accounting system that replaces an existing system. -> WATERFALL MODEL

- It is a waterfall model because there is an already existing system, the requirements are stable and reusable.

i) An interactive system that allows railway passengers to find train times from terminals installed in stations. -> PROTOTYPING MODEL

- It is a prototyping model because requirements need to be changed and fast delivery is essential to be implemented.

j) Company has asked you to develop software for a missile guidance system that can identify a target accurately. -> WATERFALL MODEL

- It is a waterfall model because it is a government and defense project with predetermined requirements. All the requirements are to be delivered on time in the application.

k) When emergency changes have to be made to systems, the system software may have to be modified before changes to the requirements have been approved. Choose a process model for making these modifications that ensures that the requirements documents and the system implementation do not become inconsistent. -> INCREMENTAL MODEL

- It is an incremental model because emergency changes have to be made to the systems. It has to be modified before the requirements have been approved.

l) Software for ECG machines. -> WATERFALL MODEL

- It is a waterfall model because the analysis and design requirements must be appropriate such that there are no flaws in the measurements.

m) A small scale well understood project (no changes in requirement will be there once decided). -> WATERFALL MODEL

- It is a waterfall model because all the requirements are known and as this is a small scale project and thus a large team wouldn’t be required.