

* LAB-1

a) A simple data processing project.

Ans Simple Waterfall model because it is simple and easy and it has fixed requirements.

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

Ans Prototype model can be used because gathering user feedback is important and customer evaluation is also important because the office staff is not experienced in using computers.

c) A spreadsheet system that has some basic features and many other desirable features that use these basic features.

Ans Incremental Model can be used in this case because each increment builds upon the previous one in this case.

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

Ans In this case Agile Model is most suitable because the requirements here are changing frequently.

- e) A web-site for an on-line store which has a long list of desired features it wants to add, and it wants to a new release with new features to be released frequently.

Ans Here, an Agile Model is most suitable because it requires frequent delivery and the requirements keeps on changing everytime it needs to add a new feature.

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

Ans Here, Spiral model is used because the anti-lock braking system involves risk identification and mitigation. Waterfall model can also be used.

- g) A virtual reality system to support software maintainance.

Ans The Incremental model is most suitable here because ~~to~~ each iteration in this model ~~to~~ builds upon the previous one and the maintainance activities becomes the part of the ongoing development process.

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

Ans We can use the traditional waterfall model here because ~~to~~ we are already aware of the requirements ~~new~~ ^{of the} new system which would be the same as the existing system.

(i) An interactive system that allows railway passengers to find train times from terminals installed in stations.

Ans It can use ~~prototype~~ ^{agile} model because it involves high ~~user~~ user interaction.

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

Ans A spiral model can be used because it involves the identification and mitigation of the risk involved.

(k) Choose a process model for making the modifications that ensures that the requirements documents and the system implementation do not become inconsistent.

Ans ~~Prototype~~ ^{incremental} ~~agile~~ model can be used to keep the project evolving during the development process. A spiral model can also be used because emergency changes are to be made.

(l) Software for ECG machine.

Ans We can use the spiral model for making the ECG machine because it includes the identification and mitigation of the risks.

(m) A small scale well understood project with no changes made in the requirements.

Ans Classical Waterfall model can be used because it is simple, basic and well understood and no changes in the requirements are to be made.