Dhirubhai Ambani
Institute of Information and Communication Technology

Subject: Software Enginnering

Subject code: IT314

Lab 1

Date of submission: 31 July 2023

Due date of submission: 31 July 2023

Name: Nisha Subodhbhai Savaliya

ID: 202101486

Group: 6

A. Simple data processing project.

- Software Process Model: Waterfall Model
- Because the Waterfall Model is the most approachable, it is used for simple data processing applications.

B. Data entry system for office staff who have never used computers before. The user interface and user-friendliness are extremely important.

- Software Process Model: Iterative waterfall model
- Because the iterative waterfall approach is best suited for small projects where the iterative process helps in the development of a better user interface and usability.

C. **Spreadsheet system has some basic features and many other desirable features that use these basic features**.

- Software Process Model: Waterfall Model
- Because the spreadsheet was developed for basic feature implementation and the waterfall approach is most appropriate for this type of development.

D. 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.

- Software Process Model: Agile Model
- Because the agile model is the most suitable in cases when the user requirements are changing fast.

E. 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.

- Software Process Model: Agile Model
- Agile development using the Scrum Framework enables online websites to update and deliver new features on a regular basis.

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

- Software Process Model: Agile Model
- Agile development approaches promote frequent feedback and change, which is necessary when developing safety-critical systems. It ensures that the anti-lock braking system is always improving and that it meets both consumer expectations and the necessary safety laws.

G. A virtual reality system to support software maintenance.

- Software Process Model: Incremental Model

- Due of its responsiveness to feedback, the incremental development paradigm is the best option for creating a virtual reality system to enable software maintenance.

H. A university accounting system that replaces an existing system.

- Software Process Model: Incremental Model
- Due to its risk mitigation, ongoing feedback, adaptability, and shortened time to market, the incremental model is the best option for creating a university accounting system to replace an existing system.

I. An interactive system that allows railway passenger to find train times from terminals installed in stations.

- Software Process Model: Prototyping Model
- When specific knowledge regarding the input and output requirements of the system is unavailable, this model is implemented. Users are able to interact with a functioning model of the system, giving developers useful feedback.

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

- Software Process Model: Iterative Model
- Because of its continual improvement agility to changing needs, customer feedback, and phased deployment, the iterative model is a good option for creating software for a missile guiding system.

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.

- Software Process Model: Agile Model
- Agile enables for flexibility and frequent product updates, making it suited for projects with fast changing requirements.

L. Software for ECG machine.

- Software Process Model: Agile Model
- Medical equipment specifications, such as those for ECG machines, might change over time. Agile makes it simple to adjust to shifting priorities and requirements, guaranteeing that the software is always latest.

M. A small scale well understood project (no changes in requirement will be there once decided).

- Software Process Model: Waterfall Model
- This strategy works well for straightforward, manageable projects with predictable results. Progress moves gradually downward, like a waterfall, through the stages of conception, initiation, analysis, design, building, testing, production/implementation, and maintenance in this linear sequential model.