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Lab-1

IT-314

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A. A simple data processing project

Software Model -- Water Fall

The problem states it has simple data hence it is safe to assume that it will not have complex queries. Hence a waterfall model will be the most suitable model for this development.

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

Software Model – Prototyping

Here, the problem requires more user friendly and less complex user interface hence prototyping model will be best.

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

Software Model -- Incremental

Here, we can have a base model and then we can add the specific features. So incremental model seems to be the most suitable.

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 Model -- Agile

Agile model requires great flexibility and rapid update which are required by the current client hence this will be the best approach.

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.

Software Model -- Incremental

In this problem, we shall require frequent updates, hence to keep the update cost low, we can use an Incremental model.

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

Software Model -- Spiral

Here, this problem involves human life so we have to focus on minimizing failures so in this case the spiral model fits best because it has deals with risk management.

G. A virtual reality system to support software maintenance

Software Model -- Incremental

In the problem statement VR technology is an evolving tech so it does not have a clear instruction set, it must be updated frequently. So Incremental model fits best here.

H. A university accounting system that replaces an existing system

Software Model -- Waterfall

Here university accounting system is already deployed so its instruction set is clear and defined so waterfall model can be used which will use less resources.

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

Software Model -- Evolutionary Prototyping

The users are not well experienced with the UI, they can make errors and the model needs to be tested based on multiple user trials on a prototype for each of its functionality hence we can use Evolutionary Prototyping model.

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

Software Model -- Spiral

This task requires high precision and it has to be fail-safe hence the spiral model fits perfectly well.

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 Model -- Agile

This system requires frequent modifications to be made, agile model have an advantage of being consistent with the frequent changes, hence we can implement the same.

L. Software for ECG machine.

Software Model -- Spiral

This system needs to be fail-safe and needs to have least risk factor, hence Spiral model can be implemented.

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

Software Model -- Waterfall

Since this is a small and well understood project it is beneficial to use waterfall model here.

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