SE Lab 1

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Group no.: 6

a) A simple data processing project.

-> Waterfall Model.

->Reason: We have all the requirements pre-defined which will not updated later.

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.

->Reason: Here, UI plays an important role hence, prototyping model is helpful.

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

-> Incremental Prototyping Model.

-> Reason: This model is used as we will be updating the system on regular basis, therefore we will use evolutionary 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.

-> Spiral Model.

-> Reason: Spiral model is used as this model accommodates fast changes and model progresses as per requirements.

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.

-> Synchronize and Stabilize Model/ Spiral Model.

-> Reason: Spiral model is used as we will need to update the system on regular basis. And as the requirements are important, therefore we can also use Synchronize and Stabilize Model.

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

-> Spiral Model.

->Reason: Here, risk cannot be taken and we need to update the model accordingly so spiral model is used.

g) A virtual reality system to support software maintenance

-> Incremental Model/ Synchronise and Stabilize Model.

-> Reason: Here, the task can be divided into 3-4 groups for ease of maintenance and hence, Synchronise and Stabilize Model is used.

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

-> Waterfall Model.

->Reason: The requirements are clear and needs no change in later stages hence, waterfall model is used.

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

-> Prototyping Model.

->Reason: We can freeze the requirements and replace the existing code with a new one and also improve UI as it plays an important role here.

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

-> Spiral Model.

->Reason: Spiral Model is used here as risk cannot be taken and we need to prioritize the requirements.

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.

-> Spiral Model.

->Reason: Unlike waterfall model where there is no scope in going backwards and changing requirements, here accommodates necessary requirements after short interval of time and it this process repeats before finalizing the software/ product. This saves the whole implementation from becoming inconsistent.

l) Software for ECG machine.

-> Spiral Model.

->Reason: Here, risk is involved so spiral model is used.

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

-> Waterfall Model.

->Reason: The requirements are predefined and hence waterfall model is used.