BERZIET UNIVERSITY

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF Computer Science

COMP433

Software Engineering COMP433

Tutorial 2

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1. Which software process model (or models) you would apply for the following scenarios. <u>Justify your Answer</u>.

   a) To develop a secure ATM sub-system to integrate with an existing banking system. The developed ATM sub-system will be deployed across a 1000 ATM machines. It should have an availability rate of 99%, accurate. It should also have a 99.9% accuracy money notes counting dispenser, and three-level security that requires a card, a pin code and a biometric code? why? – justify your answer

- **<u>Answer</u>: We can use Water-fall Model**
  Because this project is considered one of the big projects in addition to that, it requirements that there be high accuracy in the system and required testing since testing is very important for money software systems.

   b) To develop university student management/registration system that can support 75000 students, and up-to 15000 concurrent students' access, would not need more than 1 hour (student/user) training and need to be delivered in 4 years for operational use.? why? – justify your answer

- **<u>Answer</u>: We can use Water-fall Model**
  Because this project is considered one of the big projects in addition to that, the requirements are clear and unambiguous. We also note that the system specifies that the maximum training time for new users is one hour, so this system must be easy to use as we will use the (agile) method in order to choose a system that users can understand and deal with.

   c) To develop a mobile app, that monitors health indicators (e.g. blood pressure, sugar level, pulse) of patients, by collecting readings through special medical sensors, and then provides medical advice based on the collected readings by an external medical decision system, which your system must be connected to it. why? – justify your answer

- **<u>Answer</u>: We can use Water-fall Model**
  Because this project is considered one of the big projects in addition to that, the requirements are clear and unambiguous.

   d) To develop a word processing application, that uses existing print, graphic, font styles, spelling check, and grammar check components. The application must be designed to be used by people with dyslexic/learning difficulty. why? – justify your answer

- **<u>Answer</u>: We can use Reuse Oriented Model**
  Because we have a lot of ready components. We also note that the system specifies that it will be used by people with dyslexic/learning difficulty, so this system must be easy to use as we will use the (agile) method in order to choose a system that users can understand and deal with.

2. *If you were a project manger responsible to develop a system for a product-line ordering system for a manufacturer of car parts. The system, should allow telephone and online ordering of car parts, and has a dedicated team to process the orders. The system should keep inventory of existing stock and be accessed by the manufacturer's product-line to manufacture parts according to sales. The users of the system are online users, who should register an account online and store users' information including their credit card details to enable them ordering online within a secure login sub-system. To enable users order online, the system will be required to connect to the respective credit card bank to authorize payment. Other system users also include salesmen who can place orders through telephone calls, and process payment through the system, and inventory users who manage availability of car parts and system administrators who manage the system database. The system should allow 10 concurrent salesmen and 10 inventory men to use the system.*

How would you project manage the above scenario? - particularly which software process model (or models) would you apply and use? If you are applying more than one model, indicate for what parts/components of the project and at what stage of its development life cycle.

- **Answer: From my point of view it can be used Incremental with waterfall for the online payment method. In addition to, prototyping must appear here.**