Case Study Assignment #1

SYSC4106 – Software Economy and Project Management

Lecturer: Dr. Ahmed Raoof   **Winter 2023**

INSTRUCTIONS: This is a <u>graded assignment</u>. Hence, all academic integrity rules and procedures apply.

➢ For case study assignments, you should work within your case study groups.
➢ Please, limit your responses to one typed page per question.
➢ You can ask for TA's assistance during their office hours.

---

1. **(30 Marks)** A software house has developed a customized order processing system for a client. You are an employee of the software house that has been asked to organize a training course for the end-users of the system. At present, a user handbook has been produced, but no specific training material. A plan is now needed for the project which will set up the delivery of the training courses. The project can be assumed to have been completed when the first training course starts. Among the things that will need to be considered are the following:

   ➢ Training materials will need to be designed and created.
   ➢ A timetable will need to be drafted and agreed.
   ➢ Date(s) for the course will need to be arranged.
   ➢ The people attending the course will need to be identified and notified.
   ➢ Rooms & computer facilities for the course will need to be provided for.

   a. Identify the main stakeholders for this project.
   b. Draw up a statement of the objective(s) for this project.
   c. For the objective(s), identify the measures of effectiveness.
   d. For each objective, identify relevant sub-objectives or goals and who would be responsible for each of them.

---

2. **(30 Marks)** Most of the time, the need for defining what is to be learned from a prototype and the way that it will be evaluated to obtain the new knowledge are strongly required. Outline the learning outcomes and evaluation for the following:

   a. A final year degree student is to build an application that will act as a "suggestions box" in a factory. The application will allow employees to make suggestions about process improvements and will track the subsequent progress of the suggestion as it is evaluated. The student wants to use a web-based front-end with a conventional database. The student has not previously developed any applications using this mix of technologies.

Case Study Assignment #1
SYSC4106 – Software Economy and Project Management
Lecturer: Dr. Ahmed Raoof   **Winter 2023**

  b. An engineering company has to maintain a large number of different types of documents relating to current and previous projects. It has decided to evaluate the use of a computer-based document retrieval system and wishes to try it out on a trial basis.

  c. A business which specializes in 'e-solutions' – the development of business applications that exploit the WWW has been approached by the computing school of a local university. The school is investigating setting up a special website for its former students. The website's core will be information about job and training opportunities, and it is hoped that this will generate income through advertising. It is agreed that some kind of a pilot to evaluate the scheme is needed.

3. **(40 Marks)** Considering ONLY these SLC models: *Waterfall*, *V-Shaped*, *Spiral*, *Evolutionary Rapid Prototyping*, *RAD*, and *Incremental*; select the most suitable lifecycle **models** for the scenarios below (provide your reasoning for each one):

  a. Developing an updated version of a factory operating system. The project includes the addition of 24 new functions, bug fixes, and enhanced UI. It is required to have at least 14 of the new functions to ready for operation within 2 to 3 months, while the rest of the functions can be added in the next 4 months through one or two updates. Budget is reserved for the project up front and there is a chance for good bonus if the whole project was delivered within 3 months. You are responsible for hiring the staff and determine their level of experience.

  b. A new technology has been recently introduced for wireless transmissions. An electronic company (medium-sized) wants to design a new product that uses this technology and be the first one to do so. The company has previous experience in wireless communications, but this is the first time it tries a extremely new technology. Engineering teams will be assembled from the current staff, with a possibility of hiring up to 4 field-specific specialists. Training/education on the new technology will be provided by the designer of the new technology for 10 days. The company wants to show either a working product (with basic functionality) or a proof-of-concept prototype in an upcoming conference four months from now.

c.   A company wants to create a modern version of its current sales system. No new functions are required except for allowing the addition of different discount schemes in the future. You, as the supplier, are required to provide one or two prototypes during your development of the software. However, it is all up to when the client company hires an experienced evaluator. The emphasis is on verifying the current functions of the software are successfully transferred to the new software.

d.   A software project where the client demands his continuous involvement in the project, as they have some experience and want to add to it for future collaborations.