**EDM1142 – LAB 2**

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Course: **Introduction to Software Engineering**

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Specialty: **Software Engineering**

Question 1) Propose the most appropriate generic software process model that might be used as a basis for the development of the following systems. Give reasons for your answers

1. A complex real time system whose requirements can be easily identified and are stable.

Answer:

**The Water fall Model** is the most suitable for this system

Reason:

* Because for a real time system failures and downtimes are unacceptable which give a good experience to users and this model covers it.
* The waterfall model need requirements that can be easily be identified and stable and the system to be developed covers these needs.

1. A website for a local library. Requirements are vague and are likely to change in the future

Answer:

**The Incremental and Iterative Model** is the most suitable for this system

Reason:

* Because this model do not need all the requirements at the start of the process and because this model typically entails some customer involvement because of the possible need in small requirements amendments during the development process.

1. An order processing system with a website for a local business. Requirements are vague but stable

Answer:

**The Spiral Model**

Reason:

* For a business website, you will need customer’s feedbacks for it and this is a model where there is intensive customer involvement. They can take part in the exploration and review stages of each cycle.
* Also, at the development stage the customer’s amendments are not acceptable.

2) Describe the software process model that you have proposed in question 1(a) highlighting its strengths and weaknesses.

Answer: **Waterfall Model**

Strengths:

* The waterfall model is easy to understand and follow.
* It doesn’t require a lot of customer involvement after the specification is done.
* Since it is flexible, it can adapt to changes.

Weaknesses:

* There is no way to see or try software until the last phase>
* The waterfall model has a rigid structure, so it should be used in cases where the requirements are understood completely and unlikely to radically change.