

## DT228/3 Software Engineering III CA Assignment

### Deadlines

Deliverable 1 - 1/11/2015

Deliverable 2 - 6/12/2015

**This assignment is worth 35% of the overall marks for this module.**

*This assignment requires you to identify a simple **web application** and progress the system through its analysis and design phases using an **object oriented approach**. An implementation of the design using **Java Enterprise Edition** as defined below is also required.*

#### **Notes:**

- Identify a project from an application area that you are familiar with - e.g. if you have an interest in palaeontology, you could design and implement a web application that allowed users to register and login to a web site, they could browse/read articles relating to palaeontology, post messages/comments/articles, send messages to specific users etc. or do whatever is appropriate for the application domain.

#### **Deliverable 1 – Requirements & Design Document**

- You must **submit a single document** containing your requirements, analysis and design models.
- The system requirements in your document should be clearly stated using a UML based approach - **a set of use cases** (at least 3) with **extended descriptions** and **one or more use case diagrams** should be provided.
- The structural model in your document should consist of a **detailed class diagram** showing class attributes, class operations with arguments and return types and class associations.
- The behavioural model in your document should consist of **at least 3 sequence diagrams**, each of which **must pertain to the use cases** described in the requirements model.
- **Recorded Presentation**
  - You must use the following website to record a **5 minute (max)** presentation of your models. The purpose of this presentation is to show that you fully understand the models. To this end, you should present each diagram and talk through why it is modelled the way it is e.g. "these two classes have a unidirectional one to many association because..."

<http://www.screencast-o-matic.com/>

#### **Deliverable 2 – Implementation**

- A fully working implementation of **one** of the use cases described in the requirements specification.
- It must **not** be a "Login" or "Registration" use case (although of course you can also implement these if you wish).
- It must contain an update to a relational database.
- It must be implemented using the Java Enterprise Edition (JEE) technology stack – i.e. Java Server Pages, Servlets, Java Classes.
- It must conform to the original design model provided – if it does not, then a valid argument must be included with the implementation detailing why.
- **Recorded Presentation**
  - You must use the following website to record a **5 minute (max)** presentation of your application. The purpose of this presentation is to show that you fully understand the implementation. To this end, you should walk/talk through the code and then show the working implementation of the use case.

<http://www.screencast-o-matic.com/>

- You will be required to give a brief demonstration of the source code in the lab.
- You will be required to submit a zipped file containing your eclipse project on webcourses.

- All the modelling should be done using appropriate modelling software (it is not required that you use RSA specifically – you could use another other tool if preferred e.g. ArgoUML).

---

#### **Marks will be awarded out of 100 as follows:**

<b>1<sup>st</sup> Deliverable</b>	Use Cases / Diagram	10%
	Class Diagram	10%
	Sequence Diagrams	15%
	Recorded Presentation	5%
<b>2<sup>nd</sup> Deliverable</b>	Working implementation of original Use Case	35%
	Conforms to original Class Diagram	10%
	Conforms to original Sequence Diagram	10%
	Demonstration & Presentation	5%