**Enterprise Frameworks Project 2012**

This assignment is worth **60%** of your overall marks for the course.

This is a group project where students will form a team to carry out the development effort. Each team will have a maximum of 4 participants. Work should be distributed evenly amongst team members.

Marks will be assigned based on *effective achievement* in terms of:

 \_the successful completion of tasks accomplished on an individual basis

 \_the contribution of each individual team member towards achieving team based goals

 \_the contribution of each individual team member with regards to the

o specification of the application,

o architecture, design, and development of the application,

o critical assessment of technologies utilised,

o critical assessment and implementation of testing strategies,

o critical assessment and implementation of development methodologies

For each team member project marks will be allocated as follows:

* Web Application: 0% - 35%
* Technical Report: 0% - 35%
* Evidence of Healthy Project 0 – 10%
* Presentation/Demonstration/Viva: 0% - 10%
* Peer Review/Group Evaluation: 0% - 10%1

1 See Appendix 1 for details regarding Peer Review/Group Evaluation.

**Project Details**

You are required to choose an area of interest to develop an enterprise level web application using C# and ASP.Net.

Once the choice has been made on subject matter you should produce a project proposal document and submit this document to your lecturer. The task of producing the proposal document should be completed within the first week of commencing project work. The project proposal document should be submitted to your lecturer as soon as possible.

Typically, the project proposal document should provide the following pieces of information:

a. An introduction to the project subject matter.

b. The goals of the project.

c. The strategy that will be employed to meet the stated project goals.

d. The key characteristics of your project in terms of functionality.

e. A list of the project deliverables that will be submitted on project completion.

A project log document should be maintained throughout all stages of the project. This log should be used to accurately record

 \_all actions and tasks carried out

 \_who carried out these actions and tasks

 \_when actions and tasks were carried out

 \_the time spent on the actions and tasks

Your lecturer will meet regularly with teams to review progress.

At the end of the project each of the team members should sign the log to confirm the accuracy of the contents.

There are two main deliverables associated with the project:

o A working enterprise web application

o A technical report

The technical report should fully document the following areas:

o Background research and investigations

o Project Plan

Due care should be taken to accurately record details of which team member was assigned responsibility for each activity

o Software development methodology employed

o Requirements analysis

o Use cases

o Architecture/Design approach

o Models (Class Models / Data Models etc.)

o Implementation of particular OOP constructs

o Design patterns and architectural patterns implemented in the application

o How cross-cutting concerns have been handled

o Security of the application

o Configuration of the application

o Scalability of the application

o Testing Approach (in terms of both functional and non-functional requirements)

o Other relevant features of the application, e.g.,

use of client-side processing,

use of Ajax,

use of web services,

use of a workflow engine etc.

use of an ORM tool

use of dependency injection / IoC containers

etc.

In this project, the developed application must exhibit the traits and qualities associated with an enterprise application. How the qualities of an enterprise

level application have been achieved should be clearly documented. The rationale behind decisions made with regards to the various aspects of the project (e.g., choice of technology, choice of development methodology, choice of testing strategy) should also be clearly documented.

It will also be a requirement to prepare a presentation and demonstrate the developed application during week 10

**Example of the type of application that could be developed:**

As an example, your team could develop a web application that handles holiday home bookings. In this case the application would maintain a database of holiday homes, record vacancy/booked periods, record associated costs with renting the holiday home, contract terms, location etc. The application would also allow holiday home owners to register as site-users which would then give them the capability to submit the details of their holiday home on the website etc.