



DEPARTMENT OF INFORMATION TECHNOLOGY

September 2012

To Whom It May Concern

It is of crucial importance to the Durban University of Technology (DUT) students and the ICT industry that students obtain non-trivial exposure to the real working world during a student's studies. In 2013, the Durban University of Technology is seeking active co-operation from members of the IT industry (retail, services, manufacturing, government, small business, etc.) as providers of opportunities for students to participate in the development of a real-life information system.

The ultimate objective is for each student to experience the complete design and development of a real-life information system, using tools and techniques that they have been exposed to at the DUT. These tools and techniques have already been ratified by the IS industry.

In order to achieve this we urge companies to provide our students with a project and a mentor.

We would appreciate your company providing projects for our students.

Should you have any queries or should you wish to discuss your proposal further, please do not hesitate to contact me.

We look forward to your involvement in the training of tomorrows' leaders.

Regards,

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1. GUIDELINES FOR SELECTING A SUITABLE PROJECT PROPOSAL

A proposal could constitute the development of a new application, modifications to an existing application or the development of components within a system.

The following should be considered when acquiring a proposal:

- 1.1. Learners are advised to pursue proposals for the development of software, where off the shelf solutions are either too expensive or do not necessarily meet the user requirements.
- 1.2. Applications must include the use of either a relational model database server or an object-relational database. Examples of these database servers are:
 - a. Oracle
 - b. MS SQL
 - c. MY SQL
 - d. DB4objects
- 1.3. **All applications must be developed as either web/mobile based and designed to incorporate the following functionality:**
 - Use of Asynchronous JavaScript and XML (Ajax) Technology or the use of any one of the following libraries:
 - jQuery (<http://jquery.com/>)
 - Moo Tools (<http://mootools.net/>)
 - ASP.NET Ajax (<http://www.asp.net/ajax>)
 - Ext (<http://www.ext.net/>)
 - Dojo Toolkit (<http://dojotoolkit.org/>)
 - Ninject Dependency Injection (<http://ninject.org/>)
 - Appropriately use of web services to create platform independence.
 - All web applications must include a mobile component.
 - All mobile applications must include a web component.
 - Use of design patterns e.g. MVC.
- 1.4. The learner is encouraged to pursue proposals that contribute to “Service Delivery and Responsible Citizenship” and the development of Durban and KZN. However, proposals from around the country may also be considered.
- 1.5. Marks will be awarded for innovation and the use of technology. For example:
 - Use of Cloud Services
 - Social Network Integration
 - Use of automated testing tools:
 - Nunit (<http://www.nunit.org/>)
 - Rhino Mocks (<http://ayende.com/wiki/Rhino%20Mocks%20Documentation.aspx>)
 - Use of best practices and application design patterns

- Designs that encourage security and enhance the performance of the application.

1.6. All proposals are subject to an approval process and the DS3-Coordinator reserves the right to reject any proposal(s) without reservation.

2. GUIDELINES FOR INDIVIDUAL PROJECT PROPOSAL

Each student must submit an individual project proposal which must be a 1-2 page printed word-processed document. Include your student number, full name and group number in your printed proposal. A template for the proposal is provided below:

- 2.1. Introduction/Background Of Client
- 2.2. Problem/Opportunity Statement
- 2.3. Project Objectives
- 2.4. Project Description
- 2.5. Mentor Contact Details

Each student must submit their individual project proposal as follows:

Full-time – to the Department Secretary (East Wing) on or before 8 Feb, 4pm.

Part-time– to the Project Management lecturer on 12 Feb, 5pm during the part time lecture.

An online collaboration network has been setup to facilitate communications.

All learners are required to join this network by registering at:

<https://groups.google.com/forum/#!forum/dutds32013>

DS3 Full-time students ONLY - Orientation will take place during your first lecture in RN0-1.