National College of Ireland

Higher Diploma in Science in Web Technologies

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Technical Report



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# Executive Summary

Maximum 300 words. The abstract should mention the problem being addressed, describe the technical solution and briefly report the findings of the evaluation.

# Introduction

This template for technical report is provided for your convenience. It should be seen as a guide rather than an obligatory form. Your individual report might require changes in terms of format or content (i.e., headings) or both.

Print on one side of the paper only (this will be the right hand side when the pages are bound).

## Background

Why?

## Aims

What?

## Technologies

How? - Brief description of the technologies used in the project. Do not copy & paste descriptions from websites here, but describe what it is and how it contributes to your project.

## Structure

Brief overview of each chapter

# System

## Requirements

This section will be similar to your original requirements specification. Requirements have probably evolved somewhat since. Where this is the case explain what changed and why.

### Functional requirements

### Data requirements

### User requirements

### Environmental requirements

### Usability requirements

## Design and Architecture

Describe the design, system architecture and components used. Describe the main algorithms used in the project. (Note use standard mathematical notations if applicable).

An architecture diagram may be useful. In case of a distributed system, it may be useful to describe functions and/or data structures in each component separately.

## Implementation

Describe the main classes/functions used in the code. Consider to show and explain interesting code snippets where appropriate.

## Testing

Describe any testing tools, test plans and test specifications used in the project

The way I did testing here, I have tested using the following test cases for :

* registration with unique username
  + what happens if I use an existing username
* login of users
  + what happens if the user is not registered
  + what happens if the password is wrong
* protected views:
  + tested users profile protected view
  + tested add forum protected view
* how to add a thread
  + what happens if I try to change a username
* how to follow a user

## Graphical User Interface (GUI) Layout

Provide screenshots of key screens and explain.

## Customer testing

Provide evidence for and results of customer testing. This may include ratings or quotes from the customer.

This is me acting as a customer

## Evaluation

How was the system evaluated and what are the results? In many cases this will include usage data and user feedback. It may also include performance evaluations, scalability, correctness, etc. depending on the focus of the project.

Quantative results may be reported in tables or figures. Note that tables have their caption above the table and need to be cross referenced in the text (see **Error! Reference source not found.**). In many cases, tables are better to read if you skip the vertical lines.

Table 1: Performance with and without caching

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Nwithout** | **Nwith** | **Std.-Deviationwith** | **Std.-Deviationwithout** | **p** |
| Records | 100 | 200 | 2.54 | 3.97 | .002 |
| Data (GB) | 100 | 200 | 2.54 | 3.97 | .002 |
| Speed | 100 | 200 | 2.54 | 3.97 | .002 |

Figures have their caption below the figure as shown in **Error! Reference source not found.**. Make sure that if you use colour, the figure is still readable when printed in black & white, e.g., by using additional symbols, patterns, etc.



Figure 1: Learning gain across different experimental groups

# Conclusions

Describe the advantages/disadvantages, opportunities and limits of the project.

# Further development or research

With more resources, where could the results of this project lead to?

In here add the future immediate features to add in the app such as:

* email sent during registration for 2 factors registration
* login with social media profiles [oAuth2]
* controls on the same user added as friend more than one time
* possibility to be notified via email when somebody is following me

# References

It is recommended that students use the APA, Berkeley, Harvard or other internationally approved style. Here is an example of the APA citation style:

Wilcox, R. V. (1991). Shifting roles and synthetic women in Star Trek: The Next Generation. *Studies in Popular Culture, 13*(2), 53-65.

In the text this article can be cited as “Wilcox (1991)” or “(Wilkox, 1991)”.

References to web sites must include the access dates.

The library provides a study guide on Harvard style referencing.

# Appendix

## Project Proposal

## Project Plan

## Requirement Specification

## Monthly Journal

## Other Material Used

Any other reference material used in the project for example evaluation surveys etc.

CD containing code should be glued to the technical report.