Lab Marking system

Heriot-Watt University

Final Year Dissertation

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November 10, 2016

Declaration

I, Lewis Francis McNeill, confirm that this work submitted for assessment is my own and is expressed in my own words. Any uses made within it of the works of other authors in any for (e.g., ideas, equations, figures, text, tables, programs) are properly acknowledged at any point of their use. A list of the references employed is included.

Signed: Lewis McNeill

Date: November 10, 2016

Abstract

The project aim is to develop a web application that will be used to improve marking of computing labs. The application will be designed to be used by Students to quickly know their grade, by Lab Helpers to easily mark labs and Lecturers to see marking immedatly as it is done.

Contents

1 Aims, Objectives and Project Description

1.1 Aim

The aim of this dissertation is to design and implement a system for the digital marking and analysis of computer labs, to help improve the speed at which they are marked

1.2 Objectives

2 Literature Review

This section contains the current academic literature relating to the digitalisation of marking systems.

2.1 Digital Marking Systems

The aim of digitalising marking systems is to mirror current paper based marking systems but [1]

"What we want to achieve in our system is to provide a marking environment that mirrors these paper-based marking techniques plus takes advantage of the electronic environment", *Online Marking of Essay-type Assignements* [1].

2.2 User Dependant Views

2.3 Data to Graphics

3 Requirements

3.1 System Requirements

ID	Requirement	Type	Description	Priority
R1	Test	Test	Test	Test
R2	Test	Test	Test	Test

3.2 Usability Requirements

4 Strategy for testing and evaluation

4.1 Testing

Testing and evalutation of the system will be done in two parts. To start with throughout the development of the the system unit tests will be used to make sure that the system is robust and functional.

4.2 Evaluating

Once the system is completed a useability case study will be conducted to evaluate how successful the development of the marking system was and how later versions can be improved.

5 Project Plan and Professional, Legal, Ethical and Social Issues

5.1 Project Plan

5.2 Professional

5.3 Legal

5.4 Ethical

5.5 Social

References

[1] E. Heinrich, Y. Wang, *Online Marking of Essay-type Assignments*; 2003.(http://www-ist.massey.ac.nz/MarkTool/Publications/EdMedia2003Onscreen.pdf)

[2] J. D. Bovey, M. M. Dodson, The Hausdorff dimension of systems of linear forms *Acta Arithmetica* **45** (1986), 337–358.

[3] J. W. S. Cassels, *An Introduction to Diophantine Approximation*,Cambridge University Press, Cambridge, 1965.

[4] The GAP Group, GAP – Groups, Algorithms, and Programming, Version 4.5.6; 2012. (http://www.gap-system.org)

[5] J. Howie, *Generalised triangle groups of type* $(3, 5, 2)$, http://arxiv.org/abs/1102.2073 (2011).