



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

DEPARTMENT OF INFORMATION TECHNOLOGY

COS 301 - SOFTWARE ENGINEERING

COS 301 - Mini Project

Author:

Hanrich Potgieter

Chris Cloete

Jason Richard Evans

Kale-ab Tessera

Lelethu Zazaza

Goodness Adegbenro

Student number:

u12287343

u13029721

u13032608

u13048423

u13028023

u13046412

February 22, 2015

DECLARATION OF ORIGINALITY

UNIVERSITY OF PRETORIA

The University of Pretoria places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

While academic staff teach you about referencing techniques and how to avoid plagiarism, you too have a responsibility in this regard. If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (e.g. a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim), but also when you submit someone else's work in a slightly altered form (paraphrase) or use a line of argument without acknowledging it. You are not allowed to use work previously produced by another student. You are also not allowed to let anybody copy your work with the intention of passing it off as his/her work.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University.

The declaration which follows must accompany all written work submitted while you are a student of the University of Pretoria. No written work will be accepted unless the declaration has been completed and attached.

Full names of student: _____

Student number: _____

Topic of work: _____

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this assignment report is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.
3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

SIGNATURE: _____ DATE: _____

SOFTWARE REQUIREMENTS SPECIFICATION AND TECHNOLOGY NEUTRAL PROCESS DESIGN

BUZZ SPACE DISCUSSIONS/MINI PROJECT

Version: Version 0.1 Alpha

February 22, 2015

Contents

1	Introduction	3
2	Vision	3
3	Background	4
4	Architecture requirements	4
4.1	Access channel requirements	4
4.2	Quality requirements	4
4.3	Integration requirements	4
4.4	Architecture constraints	4
5	Functional requirements	4
5.1	Use case prioritiation	4
5.2	Use case/Service contracts	5
5.3	Required functionality	5
5.4	Process specification	5
5.5	Domain Model	5

1 Introduction

This document specifies a discussion board which aims to add educational benefits to a user. This is an attempt to redesign the idea of a discussion board. We aim to keep it as simple as possible. Also adding functionality that will make it enjoyable to use. It must captivate a user's attention and keep the user involved in the discussions.

2 Vision

To provide a new perspective on discussion boards and how they can be used to benefit individuals, it must be educational and benefit the students. As most students using the discussion board we will attempt to recognize code and display it accordingly.

3 Background

The project was introduced to us by the Univeristy of Pretoria. Vreda Pieterse a lecturer at the University has been trying to find a way to get students more involved. Currently the discussion boards are under utilized. They are also looking for a modular system that can be integrated into their current website. This will be an educational benefit to the students.

4 Architecture requirements

The program will be accessed throughout the web. We will follow a responsive design approach. This will make our web application available on both Desktop and mobile devices of various screen sizes. It will also be necessary to be modular. So that the application can integrate into an existing echo system.

4.1 Access channel requirements

Mobile Devices	Students are using devices frequently.
Desktop Computers	This will be our main focus
Restful webservice clients	...

4.2 Quality requirements

4.3 Integration requirements

4.4 Architecture constraints

JavaEE, JPA and JPQL, JSF, HTML, AJAX.

5 Functional requirements

5.1 Use case prioritiation

Critical

- Login System.
- Logout System
- Creation of a Buzz thread.
- Edit options on threads (Reading; Updating; Deleting).

Important

- Content Management (By higher level users and Administrators).
- User Restriction based on level.
- Automatic update of user status.
- Semi-Automatic evaluation of posts.
- Gathering and analization of statistical information.
- Socail tagging system on threads (and posts).
- Searching and filtering of threads.
- Format code in an easy to view/edit layout.

Nice-To-Have

- Keeping track of who read what (ie. Message Highlighting).
- Semi-Automatic functionality for generating thread summaries.
- Text formatting functionality based on user level.
- Self organization functionality.
- Automatic plagiarism checking system.
- Semi-Automatic detection of netiquette rule violations.
- Have functionality to vote for and evaluate posts.

5.2 Use case/Service contracts

Pre-Conditions Post-Conditions Request and Results Data Structures

5.3 Required functionality

5.4 Process specification

5.5 Domain Model