



UNIVERSITEIT VAN PRETORIA
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COS301 MINI PROJECT FUNCTIONAL REQUIREMENTS SPECIFICATION

Group 4B

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Here's a link to Github.

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1 Introduction

The purpose of this document is to fully specify and outline the functional requirements of "The use of Online Discussions in Teaching (TODT)" research project, received from the Computer Science Education Didactic and Applications Research (CSEDAR) team of the Computer Science Department of the University of Pretoria. The document also serves to give the client and developers a clear description and elaboration of the system to be implemented in its totality.

2 Vision

The project aims to provide an online space which will be integrated into the CS website, where students, teaching assistants, and lecturers can engage in activities related to learning the content of our module. The system will also apply game concepts to motivate students to increase the quality of their participation and consequently experience deeper learning of the course content.

3 Background

This project is due to the Computer Science department of the University of Pretoria having problems with the currently available tools for discussion forums, the following problems are hampering positive engagement of both teaching staff and students: Unorganised content, user inexperience and low levels of excitement.

The System intends to create an online discussion forum that has automated feedback on common mistakes, game-like presentation as well as automated feedback. The system also provides the COS 301 students with the opportunity to learn about the procedures used for creating, designing and developing projects for businesses, while also providing the University with a potentially new system that may, be released as an opensource project, that could possibly be implemented worldwide.

4 Functional Requirements

Temporary words

4.1 Scope and Limitations/Exclusions

Temporary words

4.2 Use case Prioritization

Temporary words

4.3 Use case/Services Contracts

Temporary words

4.4 Required Functionality

Temporary words

4.5 Process Specifications

Temporary words

4.6 Domain Model

Temporary words

5 Temporary Space

5.1 Kyhle

Use diagrams for points 4,5,and 6

5.1.1 Point 1:

1. **Scope:** Users should be able to create, read, update and delete posts.
Limitations/exclusions: Not all users should be able to use all the functions. Some users may even CRUD other users posts.

2. **Use case Prioritization:** Critical

3. **Use case/Service Contracts:**

Pre-Conditions:

- User must be connected to the buzz system.
- *Create:*
 - Must have necessary permission to create posts.
 - Must be registered on the buzz system.
- *Read:*
 - Post must exist.
- *Update:*
 - Post must exist.
 - Must either be owner of the post, or have necessary permissions to update the post.
- *Delete:*
 - Post must exist.
 - Must either be owner of the post, or have necessary permissions to delete the post

Post-Conditions:

- *Create:*
 - Post will have been created.
 - Post may not have been created, due to some error.
- *Read:*
 - If logged in, post will be marked as read for the specific user.

- *Update:*
 - Post will be updated if user has required permissions.
 - Post may not have been updated if permission requirements aren't met.
- *Delete:*
 - Post will be marked as deleted, and thus removed from the discussion board.
 - Post is not actually removed from the server, it is however hidden from all users.
 - Post may not have been deleted if permission requirements aren't met.

5.1.2 Point 2:

1. **Scope:** The system must keep track of who has read what, and highlight unread messages for each user.

Limitations/exclusions:

2. **Use case Prioritization:** Critical

3. **Use case/Service Contracts:**

Pre-Conditions:

- User must be registered to the buzz system.
- User must be logged into the system while viewing the post.

Post-Conditions:

- Post is marked as read.
- Post remains unmarked because user isn't registered or logged into the system while viewing the post.

5.1.3 Point 3:

1. **Scope:** This deals with the restriction of posting messages.

Limitations/exclusions: Message length should be restricted. Content type should also be restricted based on level and status of the user posting the message.

2. **Use case Prioritization:** Critical

3. **Use case/Service Contracts:**

Pre-Conditions:

- User must be registered to the buzz system.
- User must have necessary permissions to create posts of a certain length or content type.
- Content type and message length must be established by the creator of that specific buzz.

Post-Conditions:

- Post is created.
- Post may not have been created because user doesn't have required permissions.
- post created with incorrect length or content type due to creator of the buzz not configuring the requirements.

5.2 Andrew

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

5.3 Sphelele

5.3.1 Point 1:

1. **Scope:** The website will allow users to search the website for topics and buzz spaces, and then filter those search results by various categories.

Limitation/Exclusions: Users will be limited to 4 filter categories, namely: topic, date posted/last updated, buzz space name and rating.

2. **Use case Prioritization:** Critical
3. **Use case/Service Contracts:**

Main Scenario:

- User enters search term into search bar
- Website returns partial and complete matches to the users search query
- Filter options appear along with search results
- User selects filter(s) and search results are refined according to filter.
- User clicks on desired search result or searches with different search query and process repeats.

- 4.
- 5.
- 6.

5.3.2 Point 2:

1. **Scope:** The website will allow users to evaluate/vote for posts on the website.

Limitations/Exclusions: Only users that are logged in to the system and have the privilege rights to evaluate/vote on posts will be allowed to evaluate/vote on posts. Higher Privileged users' votes will push posts higher (or lower) than lower privileged users.

2. **Use case Prioritization:** Critical

3. **Use Case/Service Contract:**

Pre-Conditions

- User privilege level allows user to vote for post
- post must exist and not be removed

Post Conditions

- Post rating is updated.
- post moves up/down accordingly

4.

5.

6.

5.4 name

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

5.5 name

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

5.6 name

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

5.7 name

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.