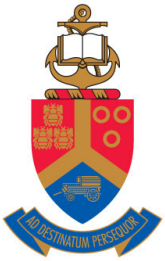

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COS301 Mini Project Functional Requirements Specification

Group 4B

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Here's a link to Github.

Version 1
February 20, 2015

Contents

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 and System Description

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 presention 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.

3.1 Related project

The project is a face lift to the existing dicussion forum of the Department of Computer Sciences and aims to improve the existing one by bringing new features that help Students to be more involved in dicussing certian modules.

3.2 System Environment

The system will interract with LDAP ,which will handle credentials avoiding the need for a database

4 The Stakeholders

4.1 The Client

The Client is Ms Vreda Pieterse at the Department of Computer Science.

4.2 The customers

The Customers are Students of the Computer science who are enrolled in the modules and lectures in the department

4.3 Maintenance Users

The system will be assigned admimstartors from the Computer Science department and they will ensure its maintenace

5 Functional Requirements

Temporary words

5.1 Scope and Limitations/Exclusions

Temporary words

5.2 Use case Prioritization

Temporary words

5.3 Use case/Services Contracts

Temporary words

5.4 Required Functionality

Temporary words

5.5 Process Specifications

Temporary words

5.6 Domain Model

Temporary words

6 Temporary Space

6.1 Kyhle

Use diagrams for points 4,5,and 6

6.1.1 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.

6.1.2 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.

6.1.3 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.

6.2 Andrew

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6.2.1 Point 1:

Restrict users to post on specified levels based on their status of the user posting the message.
Use case Prioritization: Important
Use case/Services contracts
Pre-Conditions:
Creator of the forum will not have any restrictions and can create new threads.
Post-Conditions: Non-registered user: User will not be able to post comment create new threads without acquiring an account.
Low level user: When a user is on level x users may only post y number of topic or comments on other users posts per day. New posts can only be posted in pre-existing threads made by higher level users and no new threads may be made by low level users.
Medium level user: User may add and create any number of posts per day but are limited to the z number of threads that they can create per day.
High level user: High level users have no posting restrictions. They made add any number of threads and are not limited to any number of posts per day.
All values are configurable by the Creator.

6.2.2 Point 2:

Allow staff to manage content i.e. summaries, close or hide threads and move things around.
Use case Prioritization: Important
Use case/Services contracts
Pre-Conditions:
Users may not edit, move or change another users posts threads or comments that are on the same or on a higher level that they are.
Post-Conditions:
Staff or high level users: User may move threads to their relevant categories.

Remove unused or unimportant threads. Lock or close threads so users cannot post within them if the topic has been already been answered. Post may be edited to fix error or to remove irrelevant data.
Medium level user: User may move posts to the relevant threads but may not edit change or update users posts.
Low level and non-registered users: User may not edit, move or change another users posts threads or comments.
All values are configurable by the Creator.

6.2.3 Point 3:

Provide functionality to support semi-automatic creation of thread summaries.
Use case Prioritization: Nice-To-Have Use case/Services contracts
Pre-Conditions:
Medium, High and Creator may state whether a certain thread may or may not be summarized.
Post-Conditions: When a Thread has been marked for summary then all posts which have been highly rated and important would be moved closer to the top and unrelated or unnecessary posts would be move further away from the top to the bottom with all linked comments. High level users may override whether the summarized posts are relevant and can manually move the posts to where they best fit.
All levels of users are able to rate posts and comments on how important they see the post.
High level users would get the highest x points per rating. Medium level users would get the highest y points per rating. Low level users would get the highest z points per rating. Non registered users cannot rate posts.
All values are configurable by the Creator.

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6.3 Sifiso

6.3.1 Point 1:

1. **Scope:** This deals with social tagging,broad folksnomy type is used in this social tagging
   Limitations/exclusions: Not all users will be able to tag a buzz space,Users with higher privilagies and lectures will be able to social tag buzz space

2. **Use case Prioritization:** nice to have

3. **Use case/Service Contracts:**
   Pre-Conditions:

   - User must be registered to the buzz system.
   - User must have necessary perivilages.
   - Buzz space must have a rating from users to be tagged

   Post-Conditions:

   - Buzz space tagged with a keyword.
   - Buzz space avilable at tag box for fast access.

6.3.2 Point 2:

1. **Scope:** This deals with self-organisation based on social tagging and allow the user to view according to the base structure, owns structure or public structure.
   Limitations/exclusions: Users with higher privilagies will be able to organise view to thier own structure.

2. **Use case Prioritization:** nice to have

3. **Use case/Service Contracts:**
   Pre-Conditions:

   - User must be registered to the buzz system.
   - User must have necessary perivilages.
   - Buzz space must have a rating from users.
   - Social tagging must be applied to other buzz space

   Post-Conditions:

- Tagged buzz space with higher rating from users will be organised to be in base structure
- Most accesed tagged buzz space will be included in public structure.
- Users with buzz space can organise thier own structure .

6.4 Maret

6.4.1 Point 1:

1. **Scope** The system must send template messages automatically to individual users or specified groups, like a welcomming message or a notification message.
   Limitations/exclusions:

2. **Use case Prioritization:** Nice-to-have **Use case/Service Contracts:**
   Pre-Conditions:

   - The user must be registered to the buzz system.
   - The message template should exist.
   - The system must be able to select a cetain group based on specific information, to send the group message to.

   Post-Conditions:

   - The user must be alerted of the message.
   - The user must not be albe to reply to the message.
   - The user must be able to delete the messages.
   - The user must not be able to see what other users have received the same message via group messaging.

6.4.2 Point 2:

1. **Scope** The system must automatically change the status of a user based on his participation.
   Limitations/exclusions:

2. **Use case Prioritization:** Important **Use case/Service Contracts:**
   Pre-Conditions:

   - The user must be registered to the buzz system.
   - The user must be logged in for his status to be affected by his participation.
   - The users current status will be updated, so he must have a current status.

   Post-Conditions:

- The users privileges change when his status change.
- The user must be able to view his status.
- The users stutus is public.

6.4.3 Point 3:

1. **Scope** The system must be able to integrate seamlessly with any specific host site.
   Limitations/exclusions:

2. **Use case Prioritization:** Critical **Use case/Service Contracts:**
   Pre-Conditions:

   -
   -

   Post-Conditions:

   - The buzz space is active.
   -

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6.5 Sphelele

6.5.1 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.

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6.5.2 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

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6.6 name

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6.7 name

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