
Software Requirements Specification

for

CSE online notice board

Version 1.0 Alpha

Prepared by

Name : Shovon Roy

Roll No : 35

Semester : 3-2

Instructor :	Dr. Mohammad Zahidur Rahman
Course title :	Software Engineering
Course code :	<i>CSE- 357</i>

Contents

CONTENTS

REVISIONS

1 INTRODUCTION

- 1.1 DOCUMENT PURPOSE
- 1.2 PRODUCT SCOPE
- 1.3 INTENDED AUDIENCE AND DOCUMENT OVERVIEW
- 1.4 DEFINITIONS, ACRONYMS AND ABBREVIATIONS
- 1.5 DOCUMENT CONVENTIONS
- 1.6 REFERENCES AND ACKNOWLEDGMENTS

2 OVERALL DESCRIPTION

- 2.1 PRODUCT OVERVIEW
- 2.2 PRODUCT FUNCTIONALITY
- 2.3 DESIGN AND IMPLEMENTATION CONSTRAINTS
- 2.4 ASSUMPTIONS AND DEPENDENCIES

3 SPECIFIC REQUIREMENTS

- 3.1 EXTERNAL INTERFACE REQUIREMENTS
- 3.2 FUNCTIONAL REQUIREMENTS
- 3.3 USE CASE MODEL

4 OTHER NON-FUNCTIONAL REQUIREMENTS

- 4.1 PERFORMANCE REQUIREMENTS
- 4.2 SAFETY AND SECURITY REQUIREMENTS
- 4.3 SOFTWARE QUALITY ATTRIBUTES

Revisions

Version	Primary Author(s)	Description of Version	Date Completed
1.0 Alpha	Shovon Roy	NEW	03/05/2018

1 Introduction

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described and a list of abbreviations and definitions is provided.

1.1 Document Purpose

The purpose of this document is to present a detailed description of the software named CSE online notice board. It will explain the purpose and features of the software, the interfaces of the software, what the software will do and the constraints under which it must operate. This document is intended for users of the software and also potential developers.

1.2 Product Scope

A notice Board is a place where people can leave public messages, for example, to advertise things, announce events, or provide information.

Online Notice board is web application which is engaged in providing up-to-date articles and notices and other information's for all the users or students associated with the particular department or campus. The paper aims at, how the online notice board can improve the efficiency of the student when it comes to gaining the information from the department. Online notice board of the department is one of the applications to improve the usage of notice board of the department by making it available online. This web application helps the students to retrieve all the notices and articles directly through their cell phones, laptops and computers.

Advantages:

- ✓ It is not required to going at dept notice board to see information regarding to any event or advertise or a message.
- ✓ The dept easily posts all types of messages on the notice board.
- ✓ Students can easily go through the notices through their logins.
- ✓ The management authorities can automatically set to activate/deactivate a given notice for a given time period thus helping in automizing the posting and removal of notices after the given time period.
- ✓ The management authorities can also manually activate/deactivate the notices the dept wants to remove the notice bearing wrong message.

1.3 Intended Audience and Document Overview

- Typical Users, such as students, who want to use CSE online notice board to know all latest notices.
- Advanced/Professional Users, such as teachers or staffs, who want to use CSE online notice board for more modifications.
- Programmers who are interested in working on the project by further developing it or fix existing bugs.

1.4 Definitions, Acronyms and Abbreviations

Term	Definition
User	Someone who interacts with the application
Admin/Administrator	System administrator who is given specific permission for managing and controlling the system
Web-Portal	A web application which present special facilities for user and admin
GPS	Global Positioning System
GPS-Navigatior	An installed software on phone which could provide GPS connection and data
Application Store	An installed application on mobile phone which helps user to find new compatible applications with mobile phone platform and download them from Internet
Stakeholder	Any person who has interaction with the system who is not a developer.
DESC	Description
RAT	Rational
DEP	Dependency
TAG	A unique, persistent identifier contained in a PLanguage statement [2]
GIST	A short, simple description of the concept contained in a PLanguage statement [2]
SCALE	The scale of measure used by the requirement contained in a PLanguage statement [2]
MUST	The minimum level required to avoid failure contained in a PLanguage statement [2]
PLAN	The level at which good success can be claimed contained in a PLanguage statement [2]
WISH	A desirable level of achievement that may not be attainable through available means contained in a PLanguage statement [2]
DEFINED	The official definition of a term contained in a PLanguage statement [2]

1.5 Document Conventions

This Document was created based on the IEEE template for System Requirement Specification Documents. This Document was created based on the IEEE template for System Requirement Specification Documents.

1.6 References and Acknowledgments

[1] IEEE Software Engineering Standards Committee, "IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications", October 20, 1998.

[2] Feldt R, "re_lecture5b_100914", unpublished.

[3] Davis M A, "Just Enough Requirements Management: Where Software Development Meets Marketing", New York, Dorset House Publishing, 2005.

[4] Karlsson J, "A Cost-Value Approach for Prioritizing Requirements", Norges Teknisk-Naturvitenskapelige Uni. 1997

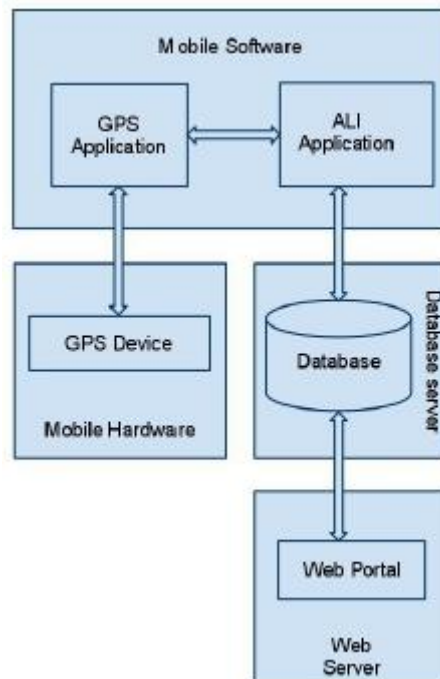
2 Overall Description

2.1 Product Overview

This system will consist of two parts: one software/application and one web portal. The application will be used to run the system and view information about them while the web portal will be used for managing the information and the system as a whole.

The software will need to communicate with respective functions for different medium e.g. if it is a mobile phone then application will need to communicate to a GPS application within the mobile phone, which in turn communicates with a physical GPS device to find information.

Since this is a data-centric product it will need somewhere to store the data. For that, a database will be used. All of the database communication will go over the Internet.



2.2 Product Functionality

File:

- New Notice: Creation of a new window for a new notice
- Open: Loads an existing notice or a file
- Open Recent: Loads one of the displayed, recently opened files.
- Close Project: Closes the currently open window.
- Properties: Displays some properties of the project (such as the title) which can be edited.

- Import Spreadsheet: Loads a CSV file
- Import Database -> Edges List: Loads information from a Database (MySQL, SQLite, PostgreSQL)
- Save: Saves the notice without changing its name or directory.
- Save as: Saves the notice and gives the user the ability to change its name or directory.
- Export -> Exports the current notice in one of the supported file formats
- Export -> SVG/PNG/PDF file: Exports a screenshot of the current notice in one of the available formats (SVG, PNG or PDF).
- Exit: Shuts down

Workspace:

- New: Creates a new workspace.
- Delete: Deletes the current workspace.
- Rename: Renames the current workspace

Tools:

- Plugins: Here the user can change his plugin settings (update already installed plugins, install new plugins etc.).
- Options: Here the user can change some of Gephi's settings (key bindings etc.).
- Language: Changes the language to one of the languages displayed.
- Online docs and support: Redirects the user to <https://cseonlinenoticeboard.com/users/support/>

Window:

- Context
- Data Table: Displays the Data Table tab.
- Filters: Displays the Filters tab.
- Layout: Displays the Layout tab.
- Output: Displays the Output-Log tab.
- Preview: Displays the Preview tab.
- Preview Settings: Displays the Preview Settings tab.
- Appearance: Displays the Appearance tab.
- Welcome: Displays the Welcome window.
- Statistics: Displays the statistics tab.
- Timeline: Displays the timeline tab.
- Configure Window: Here the user can select one of the available display options for the currently selected tab.
- Close Window: Closes the currently selected tab
- Document Group -> New Document Group: Creates a new Document Group.
- Document Group -> Manage: Selects or removes one of the existing Document Groups.

2.3 Design and Implementation Constraints

It uses a modular design where every feature is wrapped into a separate module and the modules depend on each other through well-written APIs. There are several APIs available to make plugin development easy.

The Internet connection is also a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function.

2.4 Assumptions and Dependencies

If the phone does not have enough hardware resources available for the application, for example the users might have allocated them with other applications, there may be scenarios where the application does not work as intended or even at all.

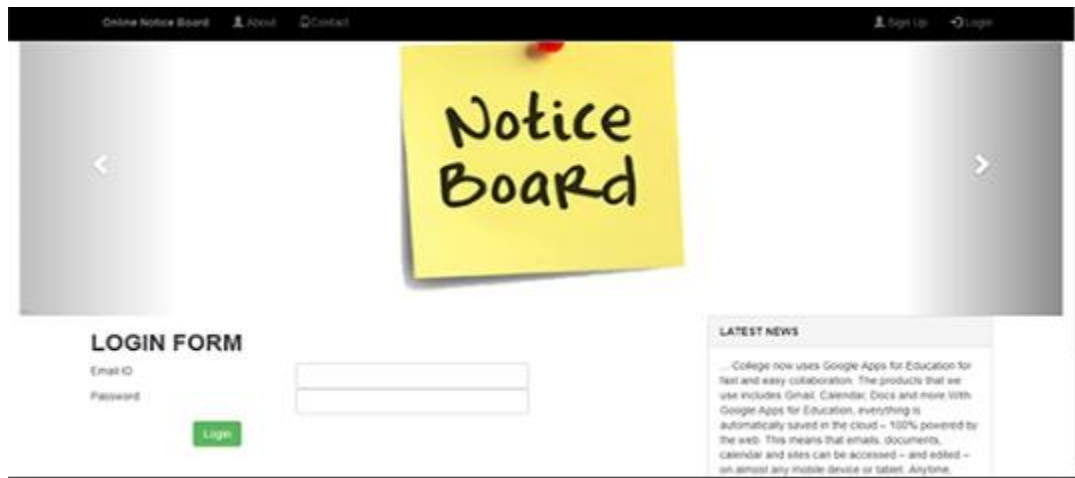
3 Specific Requirements

3.1 External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

3.1.1 User Interfaces

A first-time user of the mobile application should see the log-in page when he/she opens the application, see Figure 2. If the user has not registered, he/she should be able to do that on the log-in page.



If the user is not a first-time user, he/she should be able to see the search page directly when the application is opened, see Figure 3. Here the user chooses the type of search he/she wants to conduct.



Every user should have a profile page where they can edit their e-mail address, phone number and password, see Figure 4. Also, the user can set the mobile application to his/her preferred language. The “P” icon shows where the user can click to navigate to his/her profile page.



The image shows a user profile page with a blue border. At the top left is a blue button with a left-pointing arrow and the text "Back". Below this is the heading "User Name" in bold. Under the heading, there are two input fields. The first field contains the text "name@example.com" and has a blue "Edit" button to its right. The second field contains the text "070 - 400 00 00" and also has a blue "Edit" button to its right. Below these fields is a blue button labeled "Change password". A horizontal line separates this section from the "Change language" section below. The "Change language" section has the heading "Change language" in bold. Below the heading are four buttons arranged in a 2x2 grid: "Swedish" (blue), "French" (red), "English" (green), and "Spanish" (blue).

3.1.2 Hardware Interfaces

The minimum hardware requirements of Gephi are a 500 Megahertz CPU and 128 megabytes of RAM. Also, because it uses an OpenGL 3D engine to speed up visualization, a compatible graphics card is required.

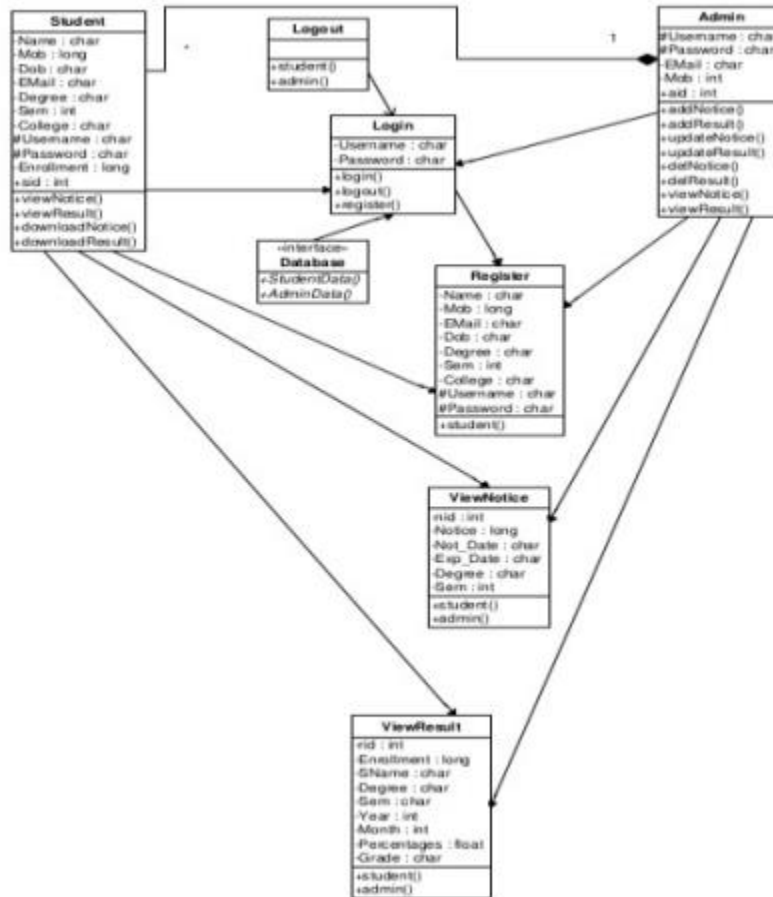
3.1.3 Software Interfaces

It requires Java to be installed on the system, more specifically Java version 7 or 8 for its latest release. Additional information can be found on section 2.7 of this document. It can be connected with a MySQL, SQLite or PostgreSQL database to import a graph edge list.

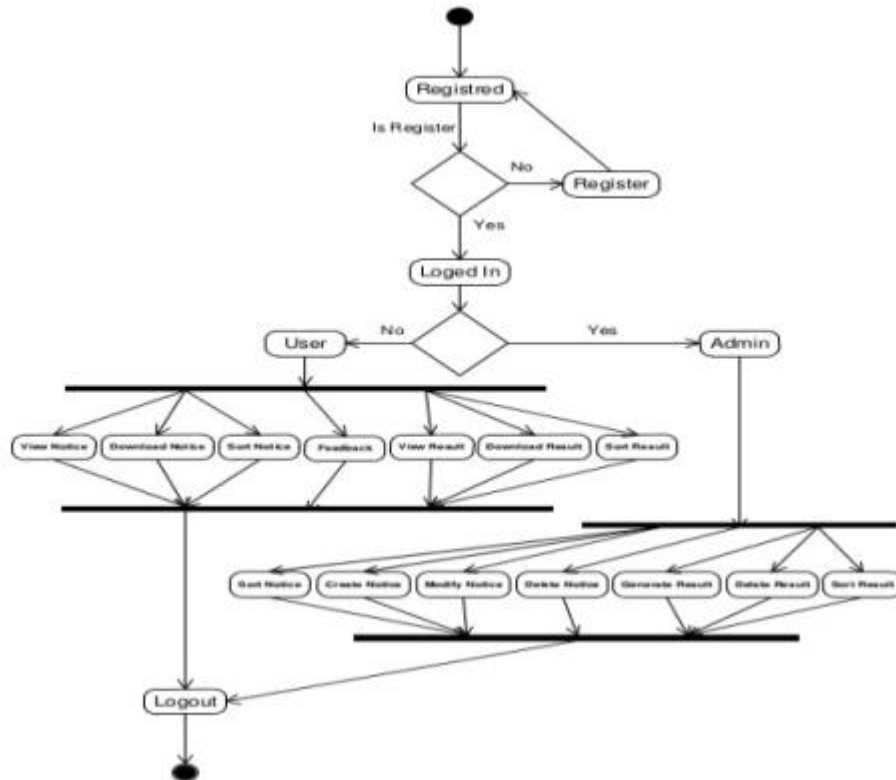
3.2 Functional Requirements

This section includes the requirements that specify all the fundamental actions of the software system.

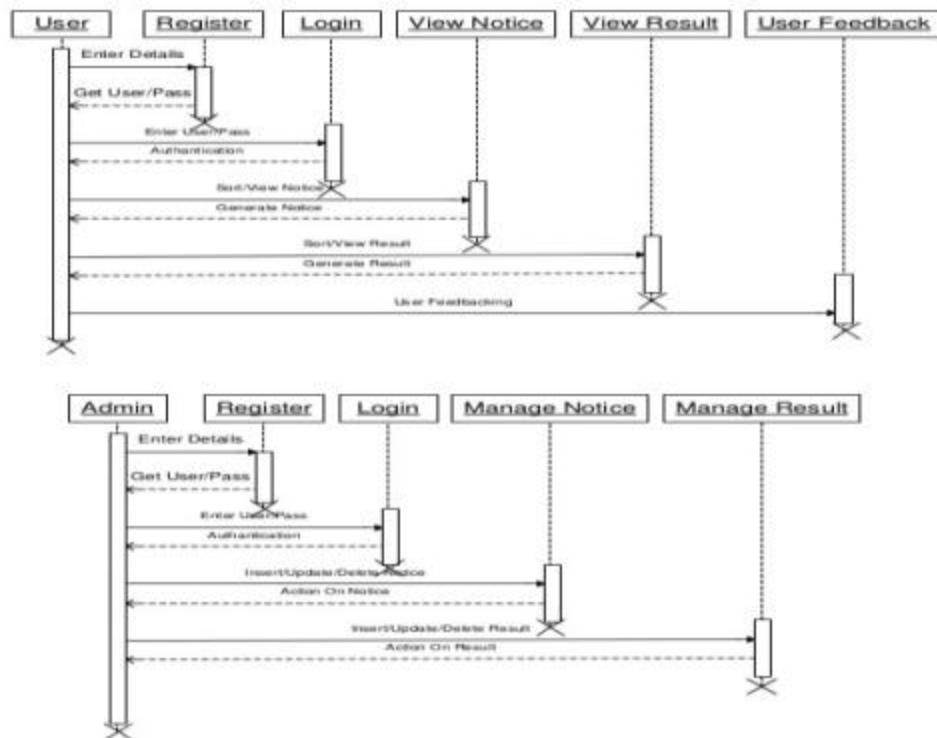
3.2.1 Class Diagram



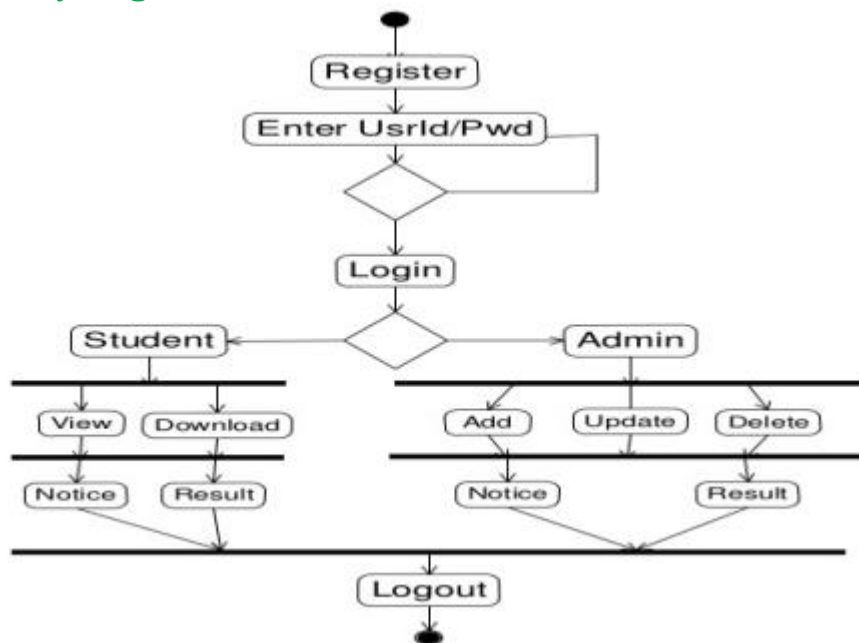
3.2.2 Start Chart Diagram



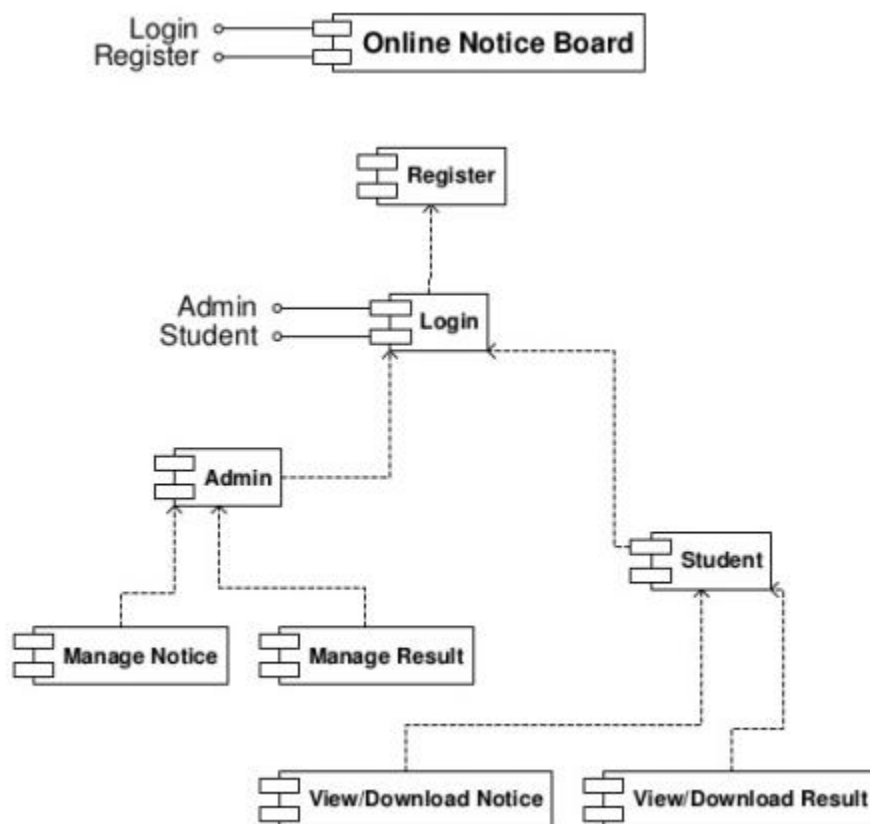
3.2.3 Sequence Diagram



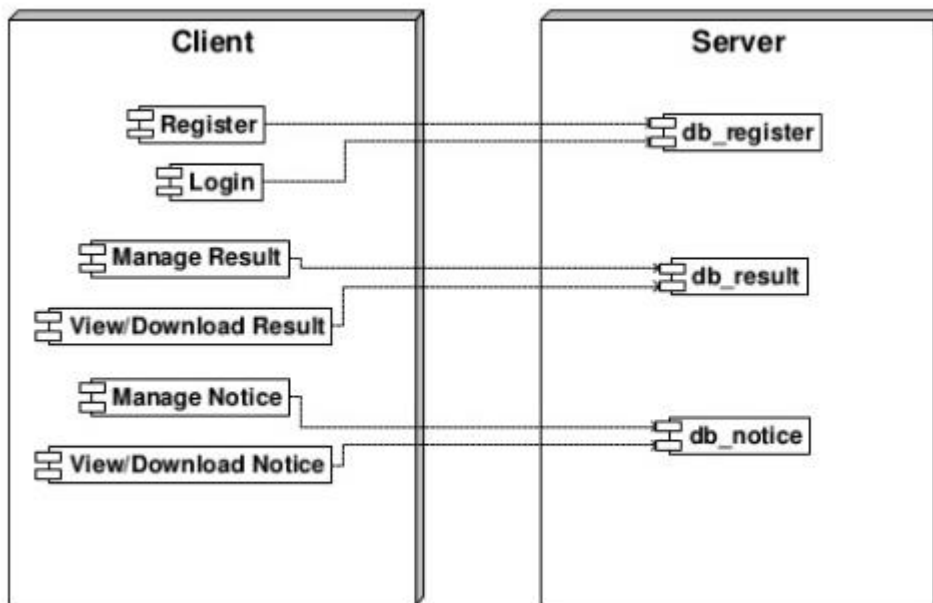
3.2.4 Activity Diagram



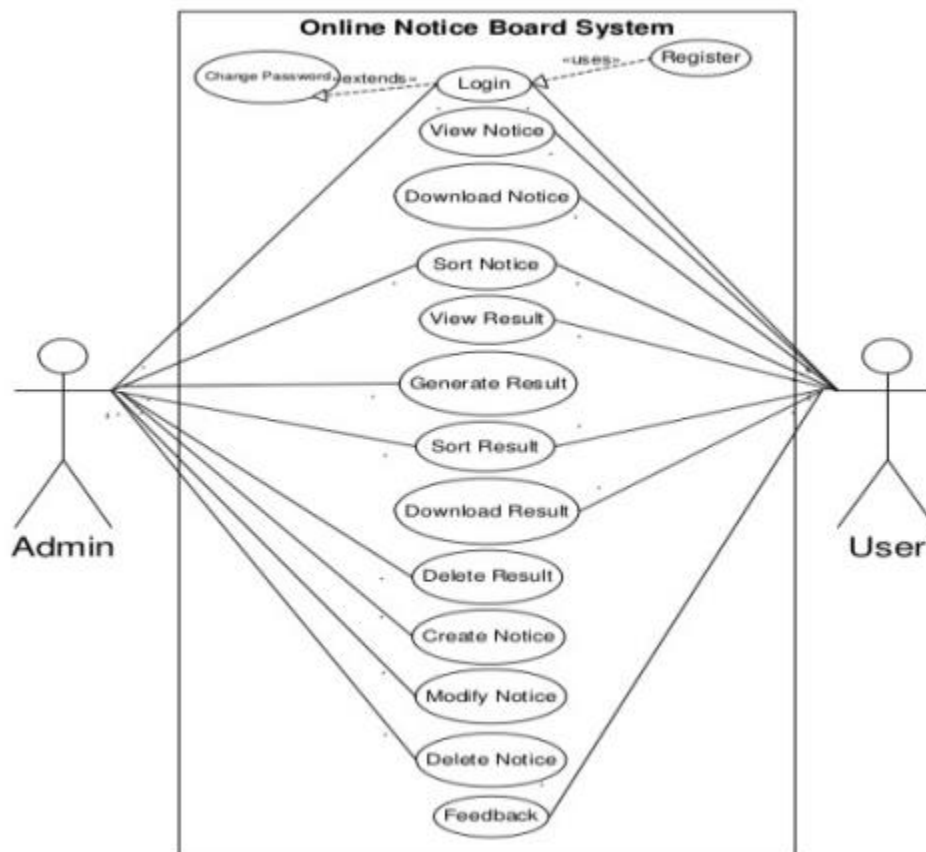
3.2.5 Component Diagram



3.2.6 Deployment Diagram



3.3 Use Case Model



4 Other Non-functional Requirements

4.1 Performance Requirements

This software requires a system with at least a 500 megahertz CPU and 128 megabytes of RAM and an OpenGL 1.2 compatible graphics card.

4.2 Safety and Security Requirements

To ensure that no one of CSE online notice board users loses any data while using it (due to a crash or a bug of some kind) the developer team updates it regularly. There is a bug tracker available where users can report any bugs they have encountered so that the developers can fix it in the next release.

It ensures security requirements and thus any type of user can use it without any additional privileges.

4.3 Software Quality Attributes

The software provides the users with both simple and advanced features. Due to its well designed and easy to use interface it can be used by both experts and typical users.