**Project Report**

CS 372

Group Management Web Application

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# Problem Definition

Create a web application for group management where users can create and join groups to organize group projects. To provide maximum productivity the application allows the user to upload and download group files, chat with group members, and create group calendar events. Users can also upload private files and create private events from within the web application.

# Software Requirements Specification Document

## Use Case Diagrams

(a) For each type of users, the use case diagram with all the use cases (consistent and unambiguous functional requirements) and actors.

## Use Case Descriptions

(b) Define in detail three use cases (the most complex ones).

## Software Qualities

(c) Software qualities (correctness, efficiency, robustness and user friendliness).

# Design Specification Document

## Software Architecture

(a) Software architecture (multi-layer architecture).

## Sequence Diagrams

(b) Three sequence diagrams (for the three defined use cases).

## Class Diagram

(c) Class diagrams with all the classes and their relationships.

## Object Diagrams

(d) Two examples of object diagrams.

# Code Description

## Component Diagrams

(a) Component diagrams regarding the organization of the source code.

## Deployment Diagram

(b) Deployment diagram regarding the hardware configuration of the software system (2 or 3 tiers).

## Classes and Functions Implemented

(c) List the classes and functions that you have implemented.

## Link to Application

(d) Include the link of your Web-based application.

# Technical Documentation

## UML Tool

(a) UML supporting tool.

## Programming Languages

(b) Programming languages.

## Reused Algorithms

(c) Reused algorithms and programs. Include their links.

## Software Tools and Environments

(d) Software tools and environments. Indicate which software parts are using which tools.

## Database Management System

(e) Database management system. Provide a screenshot of the table contents.

# User Documentation

## Graphical User Interface

(a) Including at least 8 different screen shots of the GUIs.

## Code Testing

### Correctness

(i) Correctness testing with five test cases. For each test case, submit the screen-shots of the inputs and outputs.

### Robustness

(ii) Robustness testing with five test cases. For each test case, submit the screen-shots of the inputs and outputs.

### Performance

(iii) Performance testing with some benchmarks.

# Breakdown of Completed Work