NEW GENERATION UNIVERSITY COLLEGE

OBJECT ORIENTED SOFTWARE ENGINEERING GROUP PROJECT

ONLINE EXAMINATION SYSTEM

FOR

NEW GENERATION UNIVERSITY COLLEGE

To be submitted to: **Mr. SEBEHADIN**

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1. INTRODUCTION

The Online Examination System project is a web-based application designed to provide a platform for conducting online exams. The system aims to provide a convenient, cost-effective, and secure way of conducting exams for students and faculty members. With the growing popularity of distance learning and online education, an online examination system has become an essential tool for universities and educational institutions. The system provides a range of features such as multiple choice questions, descriptive questions, time-based exams, and automated grading. The project aims to streamline the exam process, reduce administrative costs, and provide valuable data insights to improve teaching methods and student performance. This document outlines the project scope, objectives, requirements, and implementation plan for the Online Examination System.

An online examination system is important for universities for the following reasons:

- Cost-effective: Online examinations are cost-effective as they eliminate the need for paper, printing, and transportation costs associated with traditional exams. This also helps in reducing the carbon footprint.
- Security: Online examinations are more secure than traditional exams as they can be encrypted and password protected. This ensures that only authorized students can access the exam and prevents cheating.
- Time-saving: An online examination system saves time for both students and faculty members. Students can take exams at their own pace, and faculty members can grade exams quickly and efficiently using automated grading tools.
- Data Analysis: Online examination systems provide valuable data insights that can be used to improve teaching methods, course content, and student performance. The data can also help in identifying areas where students need more support or additional resources.

Overall, an online examination system is an important tool for universities to ensure that students are tested fairly, efficiently, and securely while improving the overall quality of education.

2. Current System

Current system is a manual one where clients are keeping up books to store the data like Student Details, Instructor Details, Schedule Details and inputs about understudies who endeavored test according to plan. It is extremely hard to keep up authentic information.

The current paper-based examination system has several problems, including:

1. Time-consuming: The process of conducting paper-based exams is time-consuming as it involves printing and distributing question papers, collecting answer sheets, and manual grading.

2. High administrative costs: The paper-based examination system requires a lot of administrative work such as printing, transportation, and storage of question papers and answer sheets, which can be expensive.

3. Limited accessibility: Students from remote areas or those who are unable to travel to the exam center face difficulties in taking the exam.

4. Security concerns: The paper-based examination system is vulnerable to cheating and malpractice, as it is difficult to monitor all students during the exam.

5. Delayed results: The manual grading process takes time, and students have to wait for weeks or even months to receive their results.

6. Limited feedback: The paper-based examination system does not provide immediate feedback to students, which can hinder their learning and improvement

3. Proposed System

3.1 Overview

This application is utilized to direct online assessment. The students can sit at singular terminals and login to compose the test in the given span. The inquiries must be given to the students. This application will perform evaluation, show the outcome furthermore store it in database. This application furnishes the chairman with an office to include new tests. This application gives the Instructor add inquiries to the test, alter inquiries in the test in a specific test. This application deals with confirmation of the executive, Instructor just as the understudy.

3.2 Functional requirement

1. Students must be able to login to their respective portals using their username and password, which is created Only if they register for the examination.

2. The system should allow students to give their respective online exam using their username. The system should be able to verify each user with their unique username and allow them to proceed for the test.

3. The student would be awarded +1 for correct answer No marks would be deducted for every wrong answer. Whereas no marks would be deducted for a not attempted question. 4.1.2.1) Inputs: Students' username and password

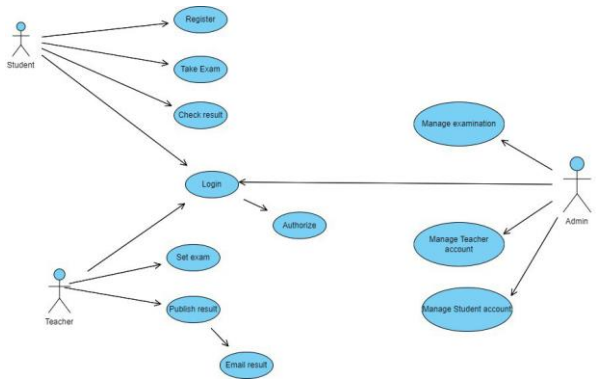
3.3 Nonfunctional requirement

- Security: The system should have robust security measures in place to prevent unauthorized access, tampering, and data breaches.
- Reliability: The system should be reliable and available 24/7, with minimal downtime or disruptions.
- Usability: The system should be user-friendly and intuitive, with clear instructions and easy navigation.
- Accessibility: The system should be accessible to all users, including those with disabilities, and support multiple languages.
- Performance: The system should be fast and responsive, with minimal lag or delays in loading pages or submitting answers.

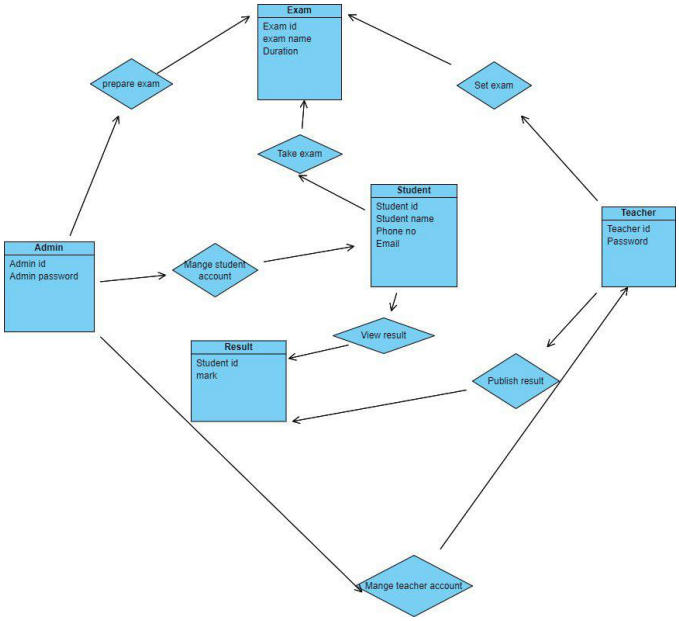
- Data backup and recovery: The system should have a robust backup and recovery mechanism in place to prevent data loss and ensure data integrity.
- Support and maintenance: The system should have a dedicated support team to address any technical issues or user queries, and regular maintenance to keep the system up-to-date and secure.

3.4 System Model

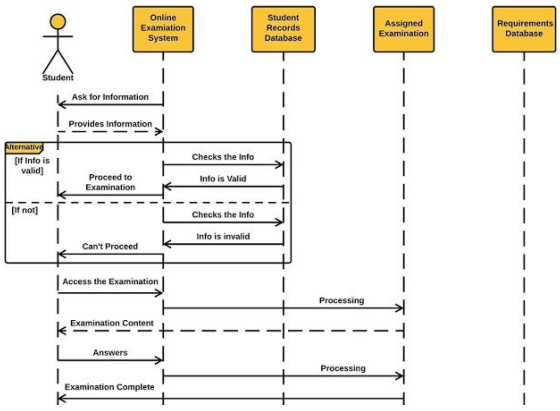
3.4.1 Use case model



3.4.2 Class Diagram



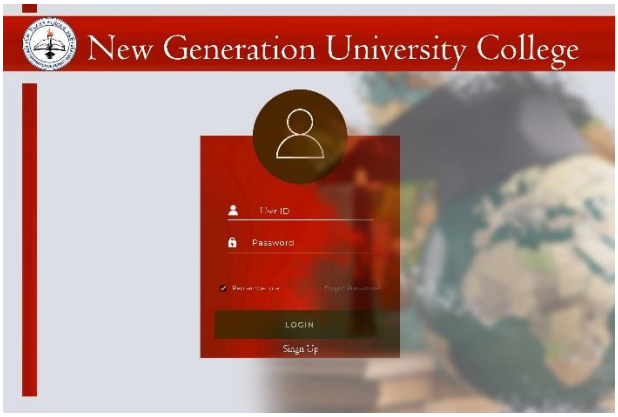
3.4.3 Sequence Diagram



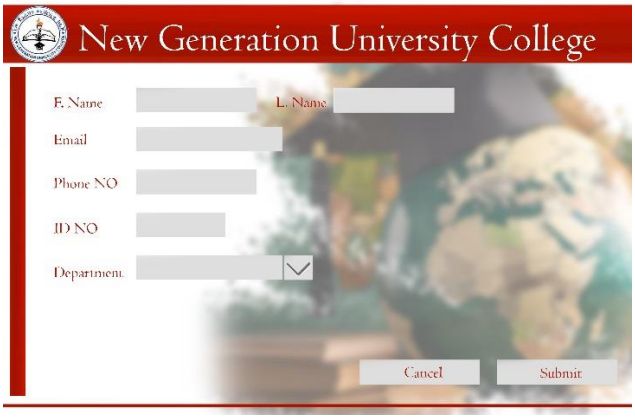
3.4.4 Scenarios

- A student logs into the online examination system using their username and password.
- The system verifies the student's credentials and grants them access to the exam.
- The student selects the exam they want to take from a list of available exams.
- The system presents the exam questions to the student one at a time.
- The student answers each question and submits their response.
- The system checks the answer and records the student's score.
- If the exam has a time limit, the system tracks the time remaining and automatically submits the exam when time is up.
- Once the exam is submitted, the system displays the student's score and any feedback or explanations for incorrect answers.
- The student can review their results and see which questions they got right or wrong.
- The system saves the student's results for future reference and grading by the instructor.

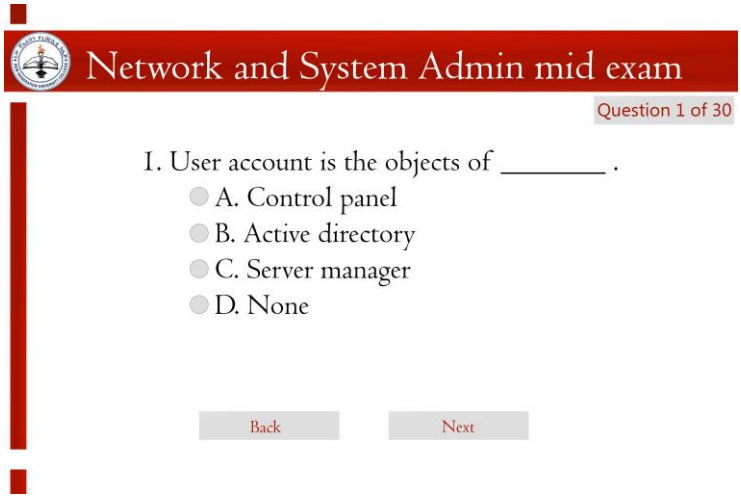
3.4.5 User Interface



Sign-Up



Sign-In



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