



UNIVERSITY OF DHAKA

Department of Computer Science and Engineering

CSE-3112 : Software Engineering Lab

Project Title: **TestCraft**

Software Requirement Analysis Document

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1 Introduction

TestCraft is a comprehensive online test designing and test-taking platform, offering a solution for tutoring individuals and institutions alike. With this web application, users can effortlessly create mock exams, practice tests, or online assessments designed for their specific audience.

The web application offers some advanced features, including automated assessment capabilities. This ensures a seamless and efficient evaluation process, saving time for both test creators and participants. Additionally, **TestCraft** provides automated notification services, keeping users informed about important timelines, results, and any pertinent updates from their associated institutions. This feature enhances communication and ensures that all stakeholders stay well-informed throughout the testing process.

1.1 Purpose of the System

The primary objective of **TestCraft** is to deliver a user-friendly test creation tool tailored for individuals or institutions involved in tutoring. This empowers tutoring professionals to unwind and focus on personal aspects while efficiently managing their tutorship responsibilities.

An equally crucial goal of our project is to afford students an easily affordable practice tool, enhancing their abilities. Students, hopefully, will be able to reflect on past assessments, get insights into their strengths and weaknesses for further development. Additionally, **TestCraft** provides tutors with enhanced vision into the progress of each individual student they tutor.

In essence, **TestCraft** serves as a dynamic medium for interaction between educators and students, ensuring an optimized educational experience that yields the best possible outcomes for both.

1.2 Scope of the System

1.3 Objective and Success Criteria of the System

The primary objective of the **TestCraft** system is to provide a dynamic and interactive platform for educators and students which will enrich the educational experience by improving learning outcomes.

Success criteria for the system include:

- Efficient test creation and administration
- Effortless assessment and feedback mechanisms

- Enhanced communication between tutors and students
- Improved student engagement and performance

1.4 Definitions and Acronyms and Abbreviations

- RBAC: Role Based Access Control
- MCQs: Multiple Choice Question
- RAD: Required Analysis Document

1.5 References

1.6 Overview

2 Overall Description

2.1 Product Perspective

2.2 Product Function

2.3 User Profiles

2.4 Constraint

2.5 Assumption and Dependencies

3 Proposed System

3.1 Overview

3.2 Functional Requirement

3.2.1

3.3 Non Functional Requirements

3.3.1 Usability

3.3.2 Reliability

3.3.3 Performance

3.3.4 Supportability

3.3.5 Implementation

3.3.6 Scalability

3.3.7 Security

3.3.8 Maintainability

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3.4 System Models

3.4.1 Scenarios

3.4.2 Use Cases

3.4.3 Use Case Model

3.4.4 Dynamic Model

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3.4.5 User Interface

4 Supporting Information