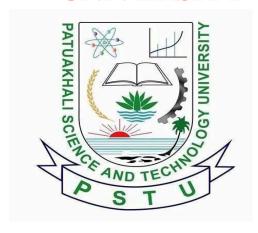
# PATUAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY



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# **Online Quiz System – Project Report**

## 1. Introduction

The **Online Quiz System** is a web-based application developed using the .NET framework. The main goal of this system is to provide an interactive and efficient platform where users can take quizzes online, and user results. This system replaces traditional paper-based quizzes, making the process faster, easier, and more accessible.

#### 2. Objectives

The main objectives of the Online Quiz System are:

- To allow users to register, log in, and participate in quizzes.
- To allow administrators to create, edit, and manage quizzes and questions.
- To automate quiz evaluation and generate results immediately after submission.
- To provide a user-friendly and secure system accessible from anywhere via the internet.

#### 3. Tools and Technologies

Technology	Details
Frontend	HTML, CSS, JavaScript, Bootstrap
Backend	ASP.NET (C#)
Database	SQL Server
Development Tools	Visual Studio, .NET Framework

## 4. System Features

#### 4.1 User Features

- User Registration and Login: Secure user account creation and login system.
- Take Quiz: Users can select quizzes by category and attempt them within a time limit.
- View Results: Users can view their quiz results, including scores and correct/incorrect answers.
- Review Past Attempts: Users can check their quiz history.

#### 4.2 Admin Features

- Admin Login: Secure admin access.
- Manage Quizzes: Create, update, delete quizzes and set quiz categories.
- Manage Questions: Add, edit, or remove questions from quizzes.
- View User Results: Access user attempts, scores, and performance analytics.
- **Reporting:** Generate reports on quiz participation and performance.

#### 7. Workflow

- 1. User Registration: New users sign up and create an account.
- 2. Login: Users log in with valid credentials.
- 3. **Select Quiz:** Users choose a quiz category.
- 4. Attempt Quiz: Users answer questions within a time limit.
- 5. **Submit Quiz:** System evaluates answers and calculates score.
- 6. View Results: Users see their score and correct/incorrect responses.
- 7. **Admin Panel:** Admin logs in to manage quizzes, questions, and monitor results.

## 8. Security Measures

- Password hashing and encryption.
- Input validation to prevent SQL injection and XSS attacks.
- Role-based access control to separate user and admin functionalities

#### 10. Future Enhancements

- Add support for multimedia questions (images, audio, video).
- Implement leaderboard and ranking system.
- Add timer and negative marking features.
- Integrate mobile app version.
- Enable quiz sharing and invitations among users.

#### 11. Conclusion

The Online Quiz System project provides an efficient, secure, and user-friendly platform for conducting online assessments. Developed using .NET technologies, it offers a scalable solution that can be expanded with additional features in the future. This project not only simplifies the quiz-taking process but also ensures fair and immediate evaluation, benefiting both administrators and users.