

1. Project Title

Online Quiz System

2. Project Objectives

- To implement Java OOP principles in a dynamic online quiz platform.
- To develop a feature-rich and modular system for quiz creation, participation, and result tracking.
- To simulate real-time quiz operations with a user-friendly interface.

3. Project Description

The Online Quiz System is a Java-based application designed to facilitate creating, participating in, and managing quizzes. This system supports multiple user roles: Quiz Creators, Participants, and Administrators. Quiz Creators can design quizzes, add questions, and set rules. Participants can join quizzes, answer questions, and view results. Admins oversee user activities, manage content, and generate reports.

4. Core Features to Implement

- **User Authentication:** Login system for Quiz Creators, Participants, and Admins.
- **Quiz Management:**
 - Creators can add, update, or delete quizzes.
 - Participants can view and take available quizzes.
- **Real-time Quiz Participation:**
 - Timer-based quiz functionality.
 - Live result generation.
- **File-based Data Persistence:** Save and retrieve quizzes and results using file handling.
- **GUI Interface:** Built with JavaFX.
- **Multithreading:** Handle simultaneous user operations efficiently.
- **Optional Networking:** Enable remote quiz participation.

5. Project Modules and Member Responsibilities

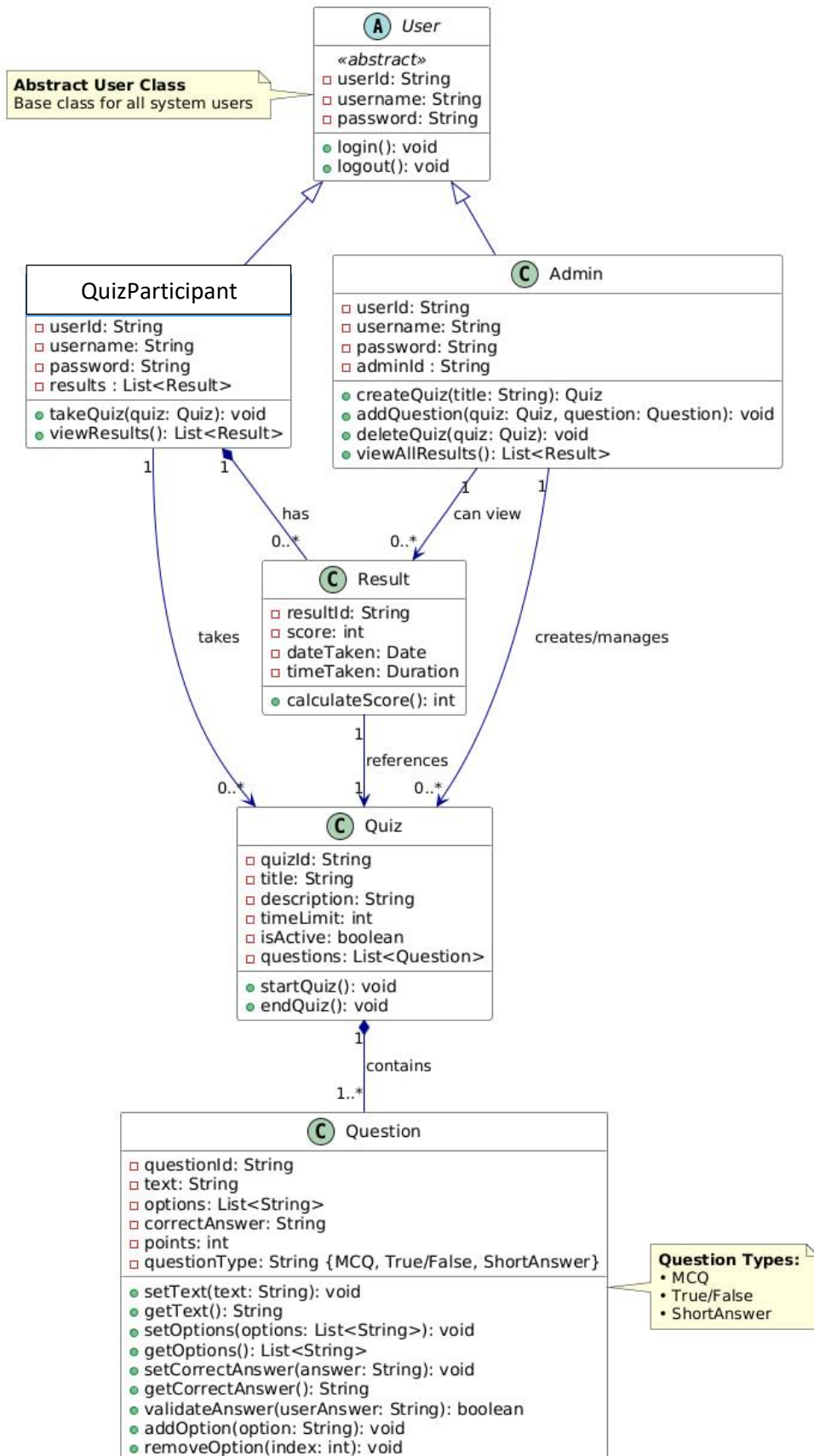
Login & User Authentication	Farhan Sadik Kawsar
Quiz Management & Timer Logic	Yasin Arafat Shiblo
GUI Design (JavaFX)	Sazidul Zidan
File Handling / Database Ops	Yasin Arafat Shibloo
Documentation / UML Reports	Mohima Hossain Safa

6. Development Tools & Technologies

Tool	Purpose
Java	Core programming (OOP)
JavaFX	GUI development
GitHub	Code collaboration & version control
Lucidchart	UML diagram creation
File I/O	Data persistence
VS Code/IntelliJ	IDE for development

7. Proposed UML Diagrams

- Use Case Diagram
- Class Diagram
- Activity Diagram (optional)
- Sequence Diagram (optional)



8. Project Timeline (5–6 Weeks)

Week	Milestone.
1	Project proposal submission.
2	UML Design + Module-wise planning.
3-4	Development and unit testing of each module.
5	Final report writing and documentation.
6	Project presentation and final submission.

9. Expected Outcomes

- A fully functional Java-based Online Quiz System using OOP, threading, and data persistence.
- A clean and interactive GUI built with JavaFX.
- A detailed project report, including UML diagrams, screenshots, and team contributions.
- Source code hosted and version-controlled on GitHub.