



**9530**

**St. MOTHER THERESA ENGINEERING COLLEGE**

**COMPUTER SCIENCE ENGINEERING**

**NM-ID: 2ECA55BDB9A57A9818941CABBEFBDEE2**

**REG NO: 953023104087**

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**Completed the project named as**

**Phase 4**

**FRONT END TECHNOLOGY**

**INTERACTIVE QUIZ APP**

**SUBMITTED BY,**

**PON APARNA M**

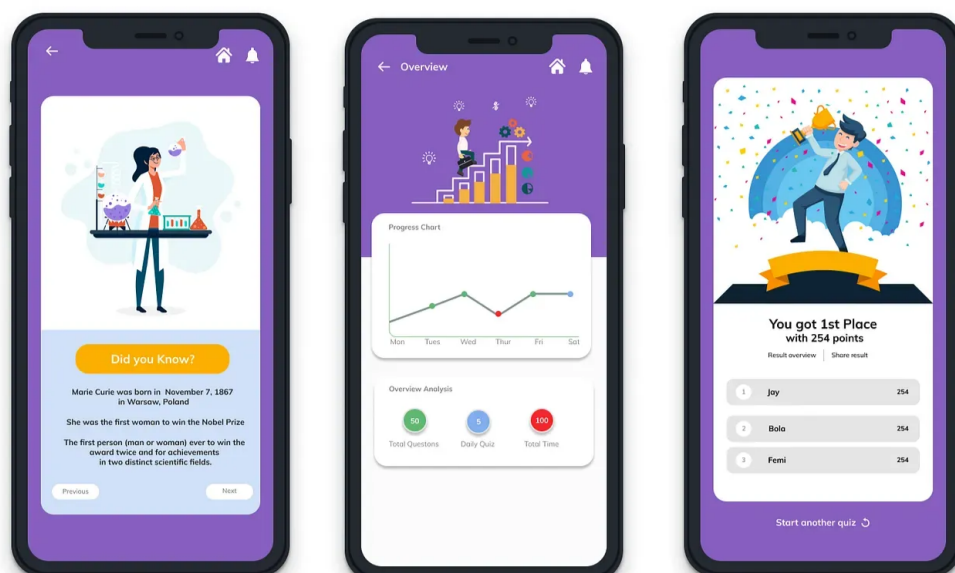
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## 1. Additional Features

- Timed Quizzes: Add countdown timers for each question or full test.
- Leaderboards & Rankings: Track and display performance globally or within groups.
- Hints & Explanations: Provide guidance and clarifications for difficult questions.
- User Profiles & Progress Tracking: Personalized dashboard to show progress, badges, and achievements.
- Social Sharing: Allow users to share scores or challenge friends.

## 2. UX/UI Improvements

- Engaging Interface: Intuitive layout for smooth navigation.
- Minimalist Design: Focus on core quiz experience without distractions.
- Gamified UI Elements: Add badges, animations, and progress bars.
- Dark/Light Mode: Switch between themes for better readability.
- Accessibility Features: Keyboard navigation, screen reader compatibility.

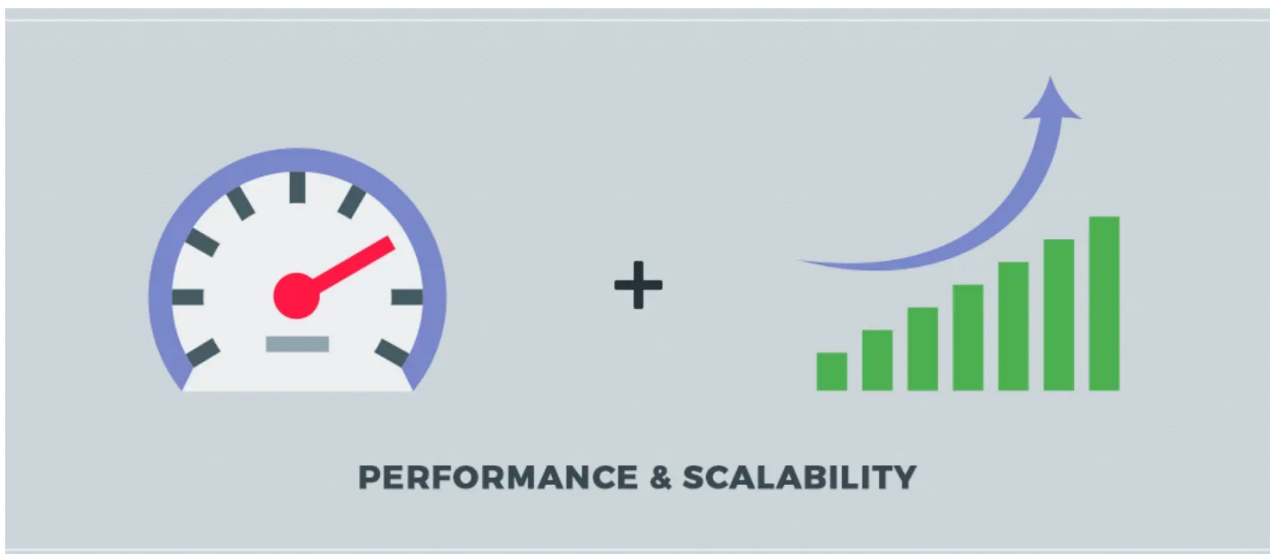


### 3. API Enhancements

- Quiz Management APIs: Add/update quizzes, submit responses, scoring system.
- Leaderboards & Scoring APIs: Display real-time results.
- Authentication APIs: Secure login and user sessions.
- Notification APIs: Send reminders and updates to users.

### 4. Performance & Scalability

- Load Balancing: Handle multiple users simultaneously.
- Efficient Queries: Optimize database for speed and reliability.
- Real-Time Updates: Push notifications for scores and leaderboard changes.



## 5. Testing of Enhancements

- Functional Testing: Validate correct working of all new features.
- Regression Testing: Ensure old features remain unaffected.
- Cross-Device Testing: Mobile, tablet, and desktop.
- User Experience Testing: Gather feedback for usability improvements.

## 6. Deployment Strategy

- Phased Deployment: Roll out features gradually with monitoring.
- Cloud Hosting: Deploy on AWS, Azure, or GCP for scalability.
- CI/CD Integration: Automate updates and bug fixes.
- Monitoring & Logging: Track app health and user issues.

