

Business Requirements Document (BRD)

PROJECT TITLE: Quiz Craft

PROJECT MANAGER: Mr. Robin Singh

Executive Summary

The Quiz Craft Platform aims to serve both educators and students by offering a versatile solution for creating and participating in quizzes. This platform caters to educational purposes and casual fun trivia, combining gamification with learning. The goal is to provide teachers with powerful tools for enhancing student engagement while also allowing for fun, non-academic activities. The platform will provide an engaging and fun experience with a strong focus on user interaction, multiplayer options, and the ability to track progress and performance.

Objectives

1. To create a user-friendly platform for quiz creation, management, and participation.
2. To support multi-purpose use: educational learning and casual fun trivia.
3. To provide advanced analytics for educators to track student performance.
4. To allow users to play alone, in groups, or against other users via multiplayer and competitive modes.
5. To provide educational and entertainment value for users of all ages and knowledge levels.

Project Details

Project Scope

1. Build a centralized, web-based, mobile-friendly platform that supports educators, students, and casual users across all age groups.
2. Design intuitive tools for creating quizzes, including multimedia support.
3. Develop a gamified environment to enhance engagement and motivation.
4. Provide robust performance tracking and reporting for educators.
5. Ensure scalability to accommodate large classrooms, events, or global trivia games.

Key Stakeholders

1. Educators: Primary users creating and managing quizzes to facilitate learning.
2. Students: End users participating in quizzes for learning and fun.
3. Platform Administrators: Manage platform operations, data security, and updates.
4. Content Creators: Individuals who build premium or community-based quizzes.
5. Developers & Designers: Responsible for platform creation and user experience.
6. General Users: Casual players from various age groups engaging in trivia games.

SOWP Analysis

STRENGTHS	WEAKNESS
<ul style="list-style-type: none">• Multi-purpose design for both learning and casual fun.• Scalability for users of all age groups.• Advanced analytics for personalized learning experiences.• Mobile-friendly design ensuring accessibility on any device.• Gamified elements like leaderboards and levels to drive engagement.	<ul style="list-style-type: none">• Initial competition with well-established platforms.• Higher resource investment for tailoring features across age groups.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">• Expanding into niche areas like STEM, mental health education, or trivia tournaments.• Partnering with schools and educational institutions for targeted adoption.• Offering premium subscription plans for advanced features.	<ul style="list-style-type: none">• Rapid technological advancements requiring frequent updates.• User retention challenges in a competitive market.• Potential compatibility issues across diverse devices and platforms.

Cost-Benefit Analysis

Total Estimated Cost: \$100,000

Breakdown of Costs:

1. Development Costs – \$50,000

- Frontend Development (React.js)
- Backend Development (Node.js, Express.js)
- Database Setup (MongoDB)
- API Development & Integration

2. UI/UX Design – \$10,000

- User Interface Design
- User Experience Optimization
- Responsive Design Implementation

3. Hosting & Infrastructure – \$15,000

- Cloud Hosting (AWS/GCP/Azure)
- Database Management Services
- Security & Backup Solutions

4. Testing & QA – \$10,000

- Functional Testing
- Performance Testing
- Security Testing

5. Marketing & Outreach – \$10,000

- Digital Marketing Campaigns
- Social Media Promotion
- Educational Institution Outreach

6. Miscellaneous Expenses – \$5,000

- Documentation & Training
- Administrative Costs
- Contingency Fund

Benefits

1. **Enhanced User Engagement:** Gamified elements and tailored content improve engagement for learners and casual users.
2. **Improved Educational Outcomes:** Analytics-driven insights help educators focus on areas needing attention.
3. **Revenue Opportunities:** The freemium model and premium features create scalable monetization potential.
4. **Global Reach:** Catering to diverse age groups and needs expands the user base worldwide.
5. **Efficient Learning:** Features like focus-based learning levels make education adaptive and impactful.

Project Requirements

Business Requirements

1. Provide a versatile platform for quiz creation with various question types (e.g., MCQs, true/false, multimedia).
2. Enable seamless quiz participation, including real-time and self-paced modes.
3. Offer advanced analytics and reporting tools to track performance and engagement.
4. Include leaderboards to enhance motivation and competition.
5. Implement focus-based learning levels to support personalized educational progression.

Functional Requirements

1. **Quiz Creation:** Allow educators and students to create quizzes with diverse question types, including multimedia integration.
2. **Quiz Participation:** Support real-time quizzes with PIN-based access and asynchronous self-paced challenges.

3. **Analytics & Reporting:** Provide detailed performance reports for educators, highlighting individual and group trends.
4. **Leaderboards:** Include gamified leaderboards to track top performers and encourage competition.
5. **Focus Learning:** Implement progressive learning levels that adapt to users' performance and educational needs.

Constraints

1. Limited budget of \$100,000, requiring careful allocation of resources.
2. Dependence on third-party services for hosting and database management.
3. High initial competition with established platforms like Kahoot.
4. Time constraints for development and testing phases to meet launch deadlines.
5. Compatibility with a wide range of devices and browsers must be ensured.

Success Criteria

1. Successful launch of a fully functional platform within the budget and timeline.
2. Positive feedback from educators and students during pilot testing.
3. Achievement of 10,000 active users within the first six months post-launch.
4. High engagement rates with gamification elements (e.g., leaderboards, levels).

Risks and Mitigation Strategy

Risks

1. **Technical Challenges:** Potential delays due to unforeseen technical issues.
2. **Market Competition:** Difficulty in gaining traction due to competitors.
3. **User Adoption:** Slow adoption by educators or students.
4. **Budget Overruns:** Risk of exceeding the allocated budget.
5. **Security Breaches:** Vulnerabilities leading to data privacy issues.

Mitigation Strategies

1. **Technical Challenges:** Allocate buffer time in the project timeline and conduct regular progress reviews.
2. **Market Competition:** Differentiate the platform with unique features like focus-based learning and analytics.
3. **User Adoption:** Launch targeted marketing campaigns and offer onboarding support for educators.
4. **Budget Overruns:** Monitor expenses closely and prioritize critical features during development.
5. **Security Breaches:** Implement rigorous security measures, including regular audits and penetration testing.