TEAM 10'S QUIZICALLY
REQUIREMENTS DEFINITION

Version 1.0
09/25/2025

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	Khadija, Rana, Katira, Jake, Palmer	09/25/25	Cecilia Newell	09/28/25	Initial Requirements Definition

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1   INTRODUCTION

1.1   PURPOSE OF THE REQUIREMENTS DEFINITION

The Requirements Definition documents and tracks the necessary information required to define business, functional, and non-functional requirements effectively. The Requirements Definition document is created during the Planning Phase of the project. Its intended audience is the project manager, project team, project sponsor, client/user, and any stakeholder whose input/approval is needed for the requirements definition process.

2   BUSINESS REQUIREMENTS OVERVIEW

Quizically is designed to increase the community outreach for BarBar by providing interactive trivia games. The following requirements define the system's functionality from the perspective of both the game host and participants. Detailed specifications are maintained in the Requirements Traceability Matrix (RTM).

Host Capabilities: The host shall create, manage, and search for trivia games. Functional requirements covering game creation are documented in BR-015 of the RTM. Requirements covering database search and filtering of games are documented in BR-020.

Player Participation: Players shall join trivia games as individuals or as members of a team. Functional requirements covering team-based and individual participation are covered in BR-016.

Usability and Maintainability: The system shall provide a user interface that is simple to use, responsive across devices, and maintainable over time. Functional requirements covering usability are documented in BR-017.

Social Media Integration: The system shall integrate with popular social media platforms to promote events and increase community engagement. Functional requirements addressing social media integration are covered in BR-018.

Automated Content Generation: The system shall generate AI-powered trivia question sets to simplify event setup for hosts. Functional requirements for automated content creation are documented in BR-019.

2.1   ASSUMPTIONS / CONSTRAINTS

Assumptions:

-   The project will have stable funding from BarBar's operating budget throughout the development lifecycle.
-   Players will have mobile devices with reliable internet access to participate in trivia games.

- Third-party AI APIs used for question generation will remain available and cost-effective.

   Constraints:

- Development and delivery must be completed within a six-month project timeline.
- The total project expense is limited to a $150,000 budget.
- The application must comply with App Store (iOS) and Play Store (Android) approval policies for distribution.

3   FUNCTIONAL REQUIREMENTS

Quizically's functional requirements outline the intended behavior of the system. They define aspects such as: system calculations, data manipulation and processing, user interface and interaction, and other specific functionality to satisfy user needs. As outlined by requirement 004, the application must run on iOS and android systems.

3.1   USABILITY REQUIREMENTS

The system must be intuitive for players and hosts. Players should be able to save and view game history without issues, as documented in UR 001 of the RTM. To support engagement, social media connection must be seamless, as defined in UR 002.

3.2   PERFORMANCE REQUIREMENTS

Quizically must perform reliably under expected usage conditions. The system shall support BarBar's capacity, up to 100 simultaneous players, as documented in FPR 001. To ensure availability during gameplay, uptime must be maintained at 99 percent, as defined in FPR 002.

3.3   SUPPORTABILITY REQUIREMENTS

The system must allow for smooth maintenance and updates. Ongoing support is enabled through clear database and server architecture, as defined in FSR 001.

3.4   SECURITY REQUIREMENTS

Quizically must protect player data and enforce secure access. Authentication will be provided through social media integration using Email and Meta platforms, as documented in FS 001.

3.5   INTERFACE REQUIREMENTS

Quizically must provide clear dashboards for both hosts and players. The host dashboard shall include controls to start, pause, end games, and display the leaderboard, as defined in FIR 001. The player dashboard shall provide controls to log in, join games, join teams, and view scores, as documented in FIR 002.

3.6   ASSUMPTIONS / CONSTRAINTS

Assumptions:

- Quizically assumes that hosts and players will have reliable internet connection
- The system depends on third-party services for authentication, Quizically availability may be impacted by third-party interruptions

Constraints:

- The application must support both iOS and Android devices simultaneously
- Compatibility is limited to up-to-date (relatively) operating systems to maintain performance
- Games are constrained to a maximum 100 players
- Leaderboard and player statistics are retained between games

4   NON-FUNCTIONAL REQUIREMENTS

4.1   HARDWARE REQUIREMENTS

Quizically should allow users to join with their mobile devices and the host should be able to host the game with a computer or tablet, as defined by HR 001 and HR 003. The players should also be able to see their scores and the trivia questions as defined by HR 004.

4.2   SOFTWARE REQUIREMENTS

The software should save trivia game data, work across platforms and have AI assistance in creating games as defined by SW 001, SW 002.

4.3   PERFORMANCE REQUIREMENTS

Quizically should be responsive to players' inputs and time out players that haven't done anything after 30 seconds. It should allow timed out players to be able to rejoin the game as stated by PR 001 and PR 002.

4.4   SUPPORTABILITY REQUIREMENTS

The software code should be readable and easily understood for maintenance - SR 001. Maintenance should also be done by a lead admin as described by SR 002.

4.5   SECURITY REQUIREMENTS

Quizically should be secure and prevent players from accessing admin features defined by S 001 and S 002.

4.6   INTERFACE REQUIREMENTS

Social media should be intuitively integrated as defined by IR 001.

4.7   AVAILABILITY REQUIREMENTS

Quizically should be available all hours of the day and any maintenance should be scheduled and announced beforehand. Support should also be available through email and common issues (AR 001, AR 002).

4.8   ASSUMPTIONS / CONSTRAINTS

Assumptions:

- BarBar has enough staff to cover maintenance and hosting games
- Every player has a mobile device, and BarBar has a screen to display scores and questions

Constraints:

- Quizically must support IOS and Android devices
- The application must be secure
- AI must be consistent and appropriate with its prompts

5   COMPLIANCE REQUIREMENTS

The compliance requirements for Quizically are based on assumptions about regulatory stability and are constrained by platform and state-level obligations.

App Store and Play Store Approval: The system shall comply with Apple App Store and Google Play Store approval processes to ensure successful deployment on iOS and Android devices. Compliance requirements covering platform approval are documented in CR-001 of the RTM.

Data Privacy and Protection: The system shall comply with the Colorado Privacy Act (CPA) to protect personal data such as player accounts, scores, and participation history. Compliance requirements covering encryption, consent, and data retention are documented in CR-002 of the RTM.

5.1   ASSUMPTIONS / CONSTRAINTS

Assumptions:

- The Apple App Store and Google Play Store approval processes shall remain stable and achievable through published guidelines.
- The Colorado Privacy Act (CPA) shall remain in effect without significant changes during the project timeline.
- BarBar shall provide resources for legal and compliance reviews as needed.

Constraints:

- The project timeline should include a sufficient buffer for App Store and Play Store review cycles, which can delay release.
- The system design should limit the collection of personal data to only what is required for gameplay to minimize compliance obligations.

Requirements Definition Approval

The undersigned acknowledge they have reviewed the Quizically **Requirements Definition** and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

Signature:	*Khadija Warraich*	Date: 9/26/2025
Print Name:	Khadija Warraich	
Title:	Student	
Role:	Project Leader	

Signature:	*Cecilia Newell*	Date: 9/28/2025
Print Name:	Cecilia Newell	
Title:	Professor	
Role:	Project Sponsor	

Appendix A: References

The following table summarizes the documents referenced in this document.

Document Name and Version	Description	Location
Requirements Traceability Matrix (Version 1)	The Requirements Traceability Matrix (RTM) is a document that connects our project requirements to their corresponding design elements and technical needs, demonstrating that each requirement is addressed and verified throughout the project lifecycle.	Attached in the same Canvas location