

# Software Requirements Specification (SRS)

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For PartyUp!

Version 1.0

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## 1. Introduction

### 1.1 Purpose

The purpose of this document is to define the requirements for the PartyUp! system. This Software Requirements Specification (SRS) describes the intended functionality, constraints, and attributes of the system in a way that can be clearly understood by developers, testers, and stakeholders. The document itself serves as the basis for design, implementation, and verification of the system, ensuring all parties share the same understanding of what the software is supposed to achieve.

### 1.2 Scope

PartyUp! is a browser-based platform designed to help players of multiplayer games find compatible teammates. Unlike traditional matchmaking, which often results in random or unbalanced teams, PartyUp! provides a structured filtering and search system so players can find others who match their playstyle, role, skill level, and preferences.

The system allows users to:

- Create or join parties based on game, platform, rank, region, or keyword.
- Build an active community through user-generated guides and posts.

- Improve online gaming experiences by reducing reliance on random matchmaking and unreliable forums.
- Customize party listings with details such as title, description, roles needed, voice chat preference, and event schedule
- Improve online gaming experiences by reducing reliance on random matchmaking and unreliable forms.

Ultimately, PartyUp! improves cooperative gameplay by ensuring teams are more balanced, reliable, and enjoyable.

### 1.3 Definitions, Acronyms, and Abbreviations

- Live players: The number of people actively playing a game at a particular time
- Looking for group: A feature in multiplayer games that allows people to find teammates before matchmaking
- Matchmaking: The process of pairing players together in multiplayer games
- Party: Players grouped together before matchmaking
- Platform: The hardware you play a game on, such as, PlayStation, Xbox, PC, and Nintendo Switch
- Randoms: Players randomly matched by the matchmaker, particularly low skilled players
- Toxic: A mean or otherwise very unpleasant player or behavior

### 1.4 References

- [1] J. Renn, E. Joaquim, J. Fisher, K. Lanier, and J. Davis, Lab 1 Outline Draft 3: PartyUp!, Retrieved September 19, 2025 from <https://murphy313.github.io/410-411/>
- [2] "All Categories," Twitch, Apr. 14, 2025. [Online]. Available: [www.twitch.tv/directory?sort=VIEWER\\_COUNT](https://www.twitch.tv/directory?sort=VIEWER_COUNT)
- [3] J. Clement, "Topic: Video Gaming Worldwide," Statista, Jun. 3, 2024. [Online]. Available: [www.statista.com/topics/1680/gaming/](https://www.statista.com/topics/1680/gaming/)

- [4] "Looking for Group," Overwatch Forums, Blizzard Entertainment. [Online]. Available: [us.forums.blizzard.com/en/overwatch/c/looking-for-group/13](https://us.forums.blizzard.com/en/overwatch/c/looking-for-group/13). Accessed: Feb. 26, 2025.
- [5] "Marvel Rivals," The Game Statistics Authority: ActivePlayer.io, Apr. 9, 2025. [Online]. Available: [activeplayer.io/marvel-rivals/](https://activeplayer.io/marvel-rivals/)
- [6] Neonkiler99, Tom Clancy's Rainbow Six Siege Wallpaper, DeviantArt, Jun. 11, 2014. [Online]. Available: <https://www.deviantart.com/neonkiler99/art/Tom-Clancy-s-Rainbow-Six-Siege-Wallpaper-459995305>. Accessed: Feb. 26, 2025.
- [7] "Tom Clancy's Rainbow Six Siege," The Game Statistics Authority: ActivePlayer.io, Apr. 9, 2025. [Online]. Available: [activeplayer.io/tom-clancys-rainbow-six-siege/](https://activeplayer.io/tom-clancys-rainbow-six-siege/)
- [8] "Video Game Market Size, Share and Growth Report, 2030," Grand View Research, 2023. [Online]. Available: [www.grandviewresearch.com/industry-analysis/video-game-market#:~:text=b.-,The%20global%20video%20game%20market%20size%20was%20estimated%20at%20USD,USD%2042.39%20billion%20in%202023](https://www.grandviewresearch.com/industry-analysis/video-game-market#:~:text=b.-,The%20global%20video%20game%20market%20size%20was%20estimated%20at%20USD,USD%2042.39%20billion%20in%202023)
- [9] A. Kessel, "The global video game market could soon approach \$500 billion, new report says," Investopedia, Sep. 13, 2024. [Online]. Available: <https://www.investopedia.com/global-video-game-market-could-double-in-10-years-report-says-8712136>

## 1.5 Overview

This document is organized into four main sections:

- Introduction provides context, definitions, and scope.
- Overall Description describes the system at a high level, including its perspective, main functions, and user characteristics.
- Specific Requirements will detail functional, interface, and performance requirements.
- Appendices will provide supporting material such as diagrams and additional background information.

## 2. Overall Description

### 2.1 Product Perspective

PartyUp! is a standalone web application built with a Node.js backend, a MySQL database, and a React-based frontend. The system operates through standard web browsers, making it accessible across platforms with no special hardware requirements beyond an internet-connected device. It provides a centralized service where players can connect with others, addressing the shortcomings of random matchmaking systems in online games [1], [2], [3]. The product environment includes both end-user devices (clients) and server infrastructure that hosts the application, processes user requests, and maintains persistent user, party, and community data. The frontend provides a responsive interface for the Home, Find Party, and Create Party pages, allowing users to browse, filter, and create parties. The Node.js backend manages data flow, authentication, and application logic, while the MySQL database securely stores all user, party, and community information for long-term access and reliability.

### 2.2 Product Functions

Key functions of the PartyUp! platform include [1], [4], [5]:

- User Account Management: Register, authenticate, and manage profiles.
- Party Creation and Joining: Users can create a party with custom fields such as game, platform, region, title, description, roles needed, voice chat requirements, and schedule, or search for existing ones based on filters.
- Filtering and Search: Match players by game, platform, region, role, language, rank, or keyword to find the most compatible groups.
- Community Features: User-generated content such as guides, community posts, and discussions to promote interaction outside of matchmaking.

- Compatibility Features: Help ensure balanced teams by enabling users to define their desired roles and skill level when creating or joining parties.

## 2.3 User Characteristics

The system is intended for [1], [6], [7]:

- Casual Players who want enjoyable, non-toxic teammates.
- Competitive Players who need reliable, skilled teammates for ranked or tournament play.
- Content Creators who wish to form consistent groups for streaming or content recording.

Users are generally expected to:

- Be familiar with online multiplayer games.
- Understand basic web navigation and account management.
- Range from casual to advanced gamers, with varying degrees of technical expertise.

## 2.4 Constraints

N/A

## 2.5 Assumptions and Dependencies

N/A