

Lab 1 – RoleCall Product Description

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1 Introduction

Tabletop Role-playing Games (TTRPGs) have become a popular form of entertainment, bringing people together for elaborate adventures in a fantasy setting. TTRPGs differ from traditional board games. The Campaign takes place over a series of interconnected sessions lasting anywhere between multiple months to years. One participant facilitates the experience as a Gamemaster (GM), fleshing out the environment, rules, story, objectives, and obstacles that the group will engage with. Players respond to the game by creating characters and narrating how they will act, bound only by their imagination and what the GM dictates as possible.

Dungeons and Dragons, a commonly played TTRPG, provides a loose framework to run a campaign; however, GMs have autonomy to deviate outside of suggested guidelines or conventions.

1.1 Societal Problem

Finding and organizing groups for TTRPGs poses a logistical challenge. A campaign requires consistent commitment and coordination from all group members. Players and GMs must all align on:

- what game they will play
- where they will meet
- when sessions will take place
- how long the Campaign will last
- how difficult the Campaign will be
- what play-style Campaign will focus on
- what roles each character will play as

A mismatch in player expectations or preferences causes friction and could terminate a Campaign. GMs must carefully consider whether each potential Player fits the Campaign they intend to run.

1.2 Problem Description

TTRPG players traditionally find groups to play with in-person or using online forums. These methods are inefficient and time-consuming.

People establish groups in-person through word-of-mouth. Players cannot join groups that they are unaware of, and GMs cannot tell everyone about the Campaign they are planning. A negative social stigma causes individuals to avoid associating with TTRPGs. As a result, Players show apprehension in seeking out a TTRPG group, and GMs avoid recruiting Players too aggressively. In many cases, Players interested in participating in TTRPGs do not hear about any Campaigns that are being formed around them.

Online forums enable GMs to advertise their campaigns, but forums only offer basic search functions. The Reddit community r/LFG has over 274 thousand subscribers, where GMs actively advertise the games they will run; however, visitors cannot clearly identify whether each post fits all of their preferences (Reddit). r/LFG only has a basic search bar, which visitors cannot use to effectively narrow the posts based on multiple criteria. Visitors must read each post individually to determine whether or not a Campaign fits their preferences.

The perpetual searching remains the greatest deterrent to the formation of a group. By eliminating the need to continuously search for a group, more players could engage in play. Both players and GMs would benefit from a solution that either eliminates the need to search or reduce the time a participant would need to search into a digestible timeframe.

1.3 The Solution RoleCall

By considering the preferences a Player or GM might have for their group, a smartphone application could directly connect compatible GMs and Players, who otherwise might not find each other.

RoleCall will be a prototype smartphone application designed to address these needs. RoleCall enables users to create both Player and GM profiles, specifying their needs and wants for a group. RoleCall will automate the searching, offering:

- Players a shortlist of Campaigns that fit their preferences and
- GMs a shortlist of Players that might be a good fit for their Campaign

RoleCall reduces the time Players and GMs spend searching for a group by showing them only a curated set of options. After reviewing only a small subset of potential groups and Players, the Campaign can begin.

2 Production Description

RoleCall is a multiplatform application that allows for faster tabletop game organization by automatically matching profiles based on user type and profile characteristics.

- Profile system to identify users as either a GM or a player.
- Enable Gm's to create game listings for players to join.
- Automatically match players to GM's game listings based on user defined preferences.
- Users spend more time playing and less time searching through search results.
- Link Gm's to other services used to host campaign sessions.
- Allow local game stores to advertise TTRPG events and sessions using the application.
- Provide users with reminders leading up to a session in order to increase player attendance.
- Create a player or gamemaster profile

- Receive updates when matches are found
- Spend more time playing and less searching.
- Local game stores act as an optional meeting place.

2.1 Key Product Features and Capabilities

2.1.1 What it Will Do

- Enable GMs to create listings for their games and get Players, specifying the:
 - Game
 - Schedule
 - Specific roles needed for the campaign
 - Location where the play session will be held
- Link GMs to platforms/resources that they can use to actually host the play sessions.
- Enable a Player to create and update a profile specifying their desired:
 - Game
 - Schedule
 - Role/Playstyle
 - Location (online, or in-person)
- Based on their Player Profile and available listings:
 - Automatically provide Players with a stack of listings that are a potential match.
 - Automatically provide GMs with a stack of players that are a potential match.
 - When both the Player and GM approve the match, they are connected via chat.
- Share store information, including:
 - Seating availability.
 - Event Schedule.
 - Location
- Create listings for in-store events.

2.1.2 What It Will Not Do

- Serve as a platform to facilitate play-sessions
- Behave as a “search engine”
- Organize meetups other than TTRPG meetups
- Act as a discussion board

2.2 Major Components (Hardware/Software)

[Provide an overview of the hardware needed to support the solution. Describe how it is structured based on CS 410 MFCD. Define and describe the software to be developed.]

2.2.1 Hardware

- Mobile devices

2.2.2 Software

- RoleCall matching algorithm
- Operating Systems - iOS, Android
- Web Server - Flask
- Database - MySQL
- Programming Languages - Dart, Python, MySQL, Flask
- Version Control - Git/Github
- IDE - Visual Studio Code
- Testing - dart:test, dart:mockito, pytest

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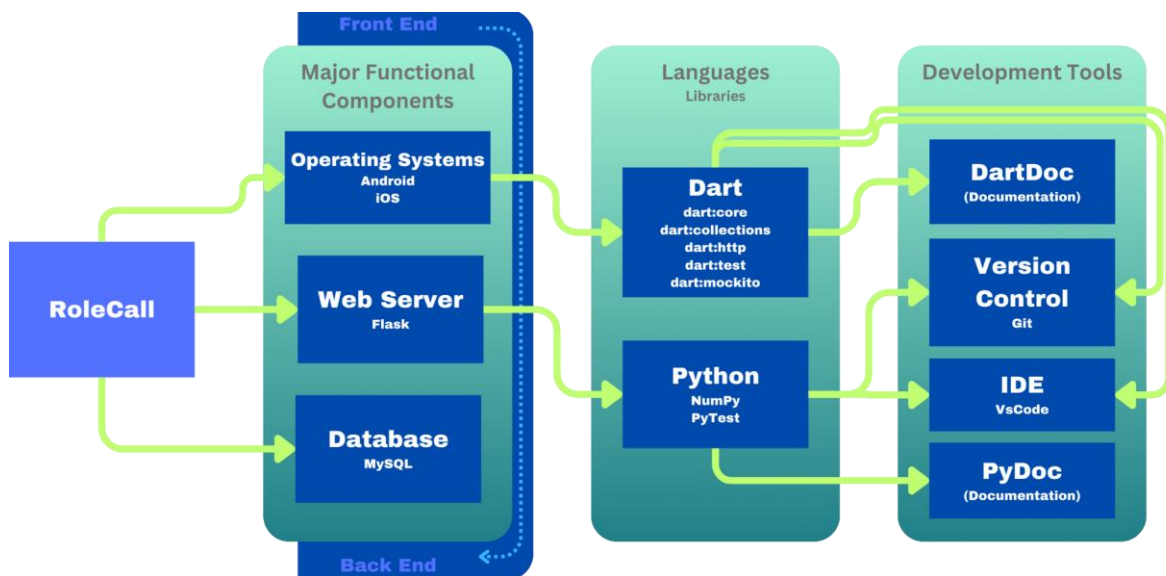


Figure 1: Software Dependencies

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3 Identification of Case Study

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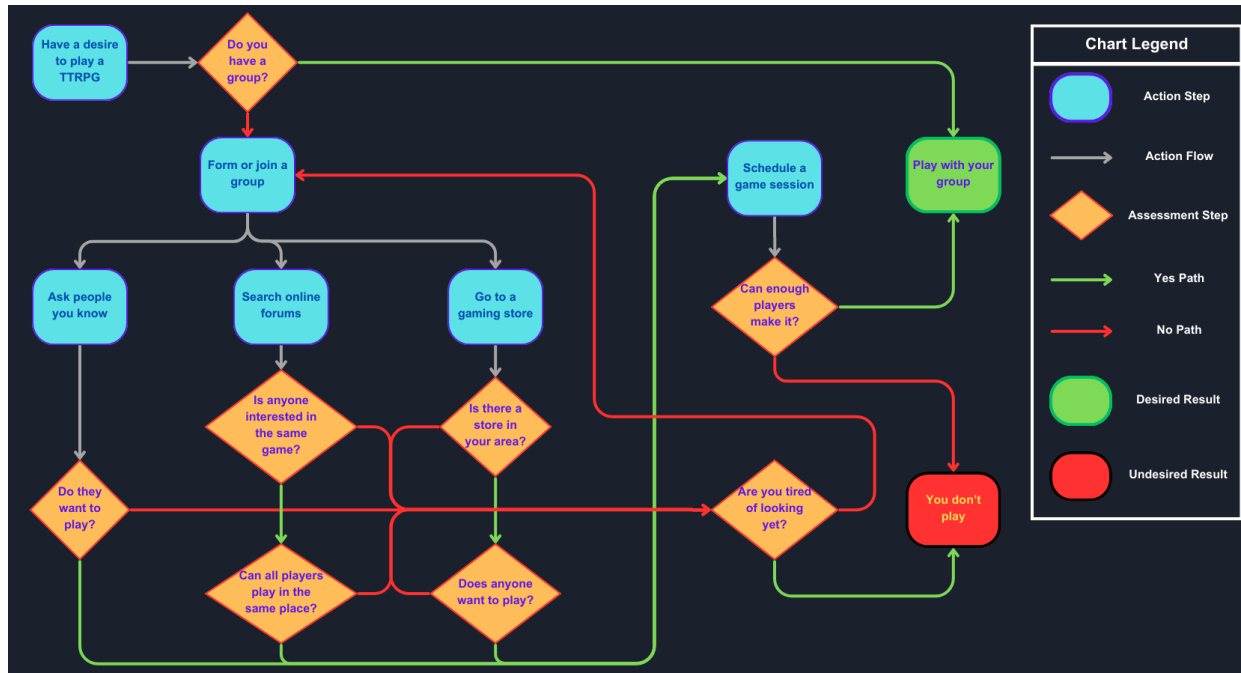


Figure 2: Current Process Flow

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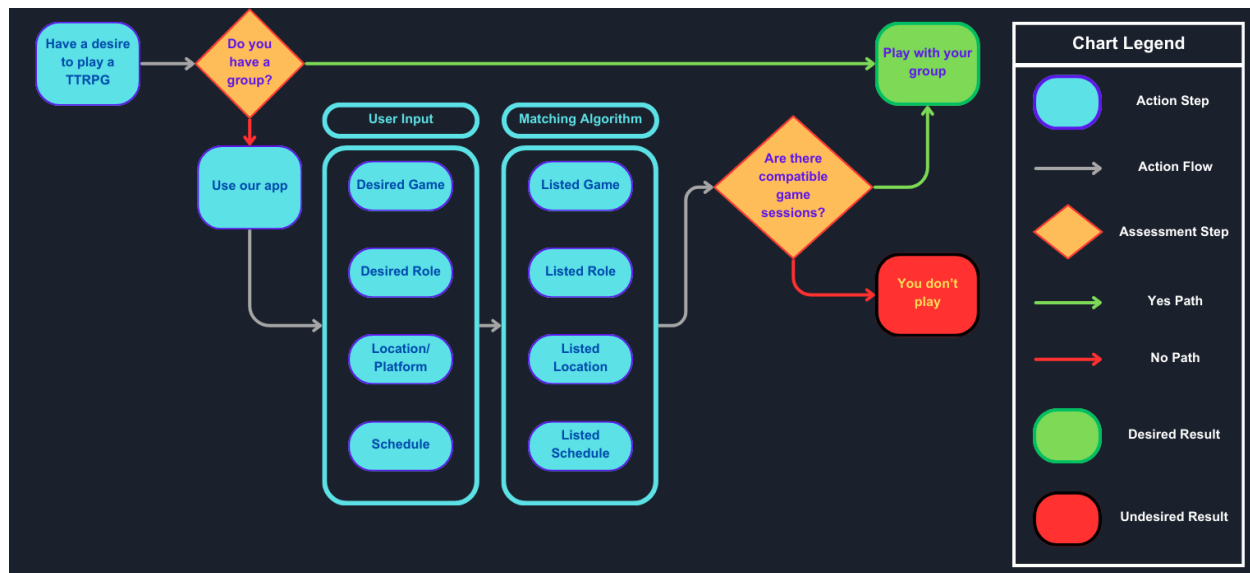


Figure 3: Solution Process Flow

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3.1 Problem Statement

Tabletop players find it difficult to discover and organize games with other people. However, the tools available to them that are meant to help with this process are overly time consuming and inefficient.

3.2 What is a TTRPG?

A tabletop role-playing game (TTRPG) is a special kind of board game traditionally played in a fictional setting. The game is played between a designated Gamemaster (GM) and the rest of their players.

The GM's role is to craft the rules, setting, and world that the players will interact with. This process is referred to as crafting a campaign. And these campaigns can last anywhere from a few weeks to a few years depending on the group of players.

3.3 Problem Characteristics

Geographical Constraints: Difficulty in locating local players for in-person groups

Organizational Challenges: Coordinating meeting times and locations for group play

Player Flakiness: Inconsistent attendance and commitment from players disrupts game continuity

Mismatched Preferences: Varied player preferences may lead to incompatible gaming styles

Negative Stereotypes: Social Stigma surrounding TTRPGs may discourage potential players

Entry Barrier: High initial cost and learning curve may deter new players

Rule Dispute: Conflicts arising from differing interpretation of game rules and mechanics

4 Glossary

Campaign: a series of interconnected adventures played out over multiple gaming sessions, led by the Gamemaster (GM), providing a cohesive narrative experience for the player characters.

Gamemaster (GM): the organizer and narrator of a TTRPG campaign, responsible for creating the game world, setting objectives, and facilitating gameplay.

Play-style: definition required, ask group to add this

Role: definition required, ask group to add this

Tabletop Role-Playing Game (TTRPG): a collaborative storytelling game where players take on fictional roles within a predetermined setting, guided by rules and moderated by a Gamemaster (GM).

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