Lab 1 - RoleCall Product Description

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1 Introduction

1.1 Societal Problem

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.

1.2 Problem Description

- Players of tabletop roleplaying games (TTRPGs) face numerous challenges when organizing gameplay sessions.
- Players have trouble finding other players in their area.
- Players have trouble coordinating game sessions.
- Players have trouble maintaining proper attendance with their members.
- Negative stereotypes regarding TTRPGs disincentivizes newer players.
- Players don't have many effective tools to make the finding players process more efficient.
- 70% of all TTRPG players live in North america.(DND RESEARCH, 2020) In countries where TTRPGs are less players have trouble finding each other.
- Because there has been a 36% increase in the number of people that identify as both GM and Player.(DND RESEARCH, 2020) Gm's and Players have trouble deciding who will fulfill each role in a campaign.

1.3 The Solution RoleCall

- 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.

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.

- 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.
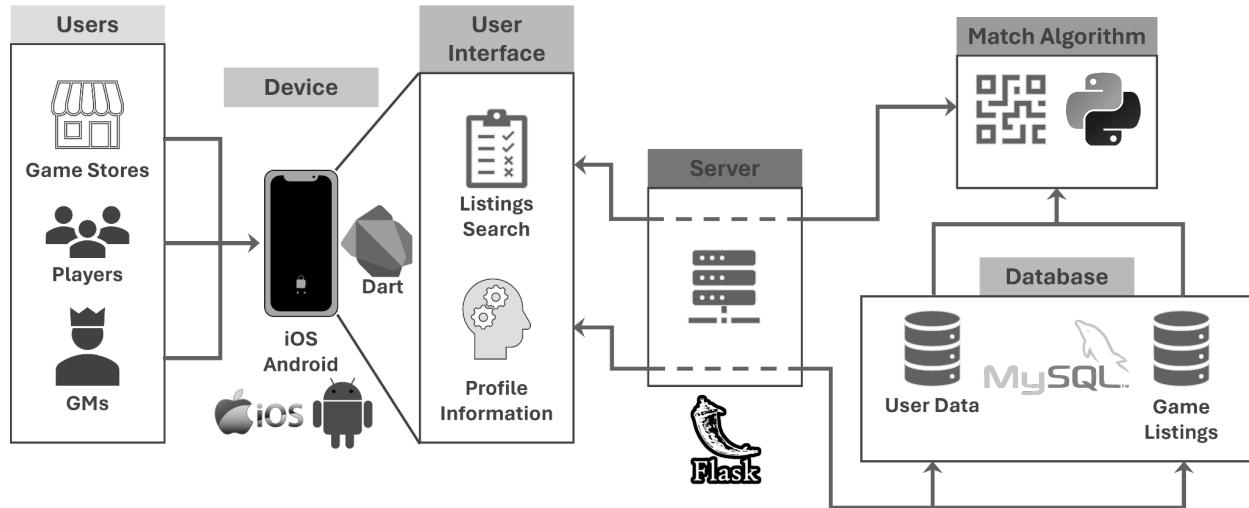

Figure 1. Major Functional Component Diagram

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
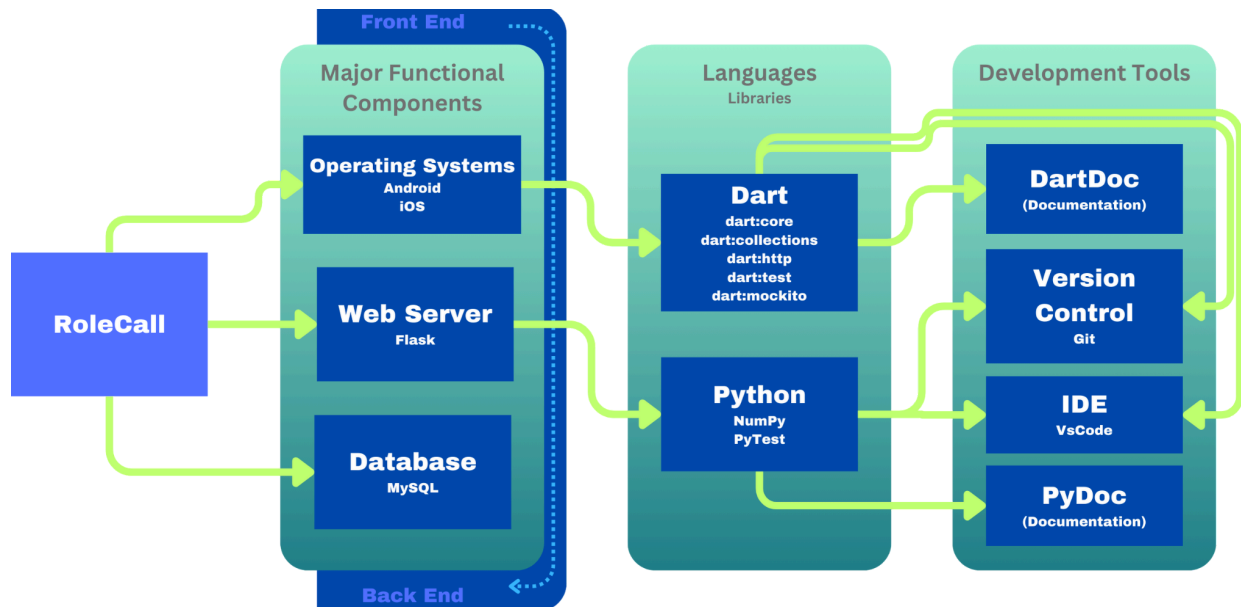● Testing - dart:test, dart:mockito, pytest

Figure 2. Software Dependencies
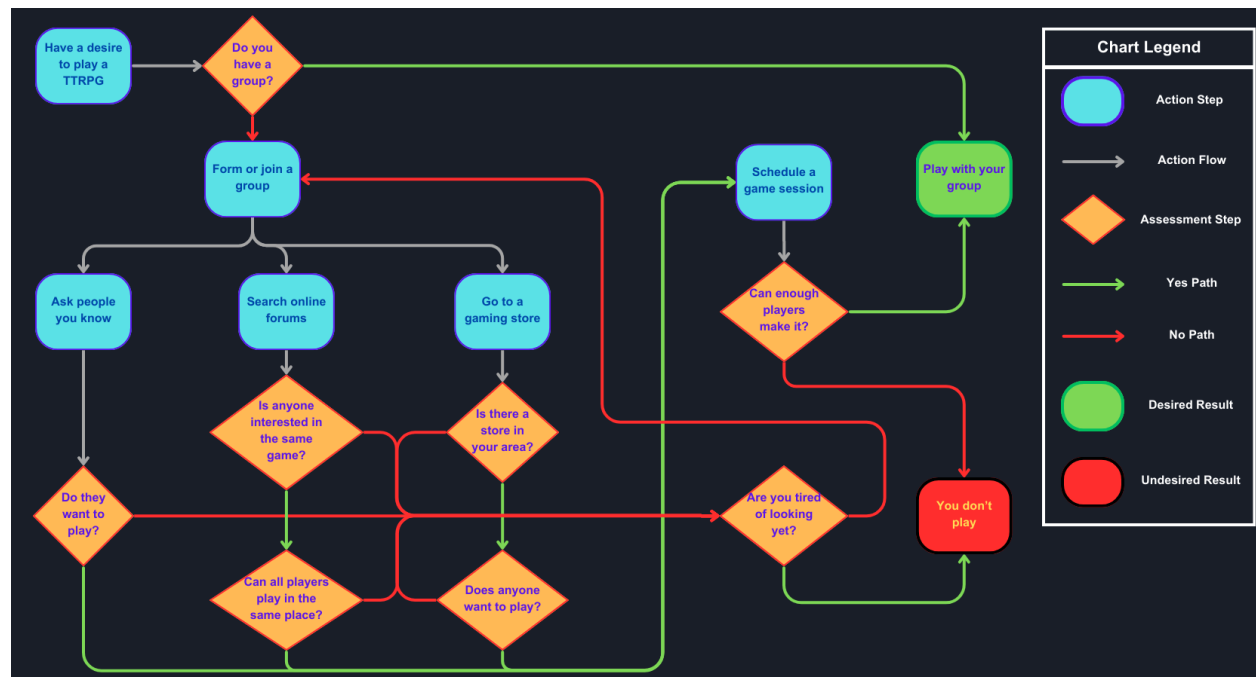
3 Identification of Case Study
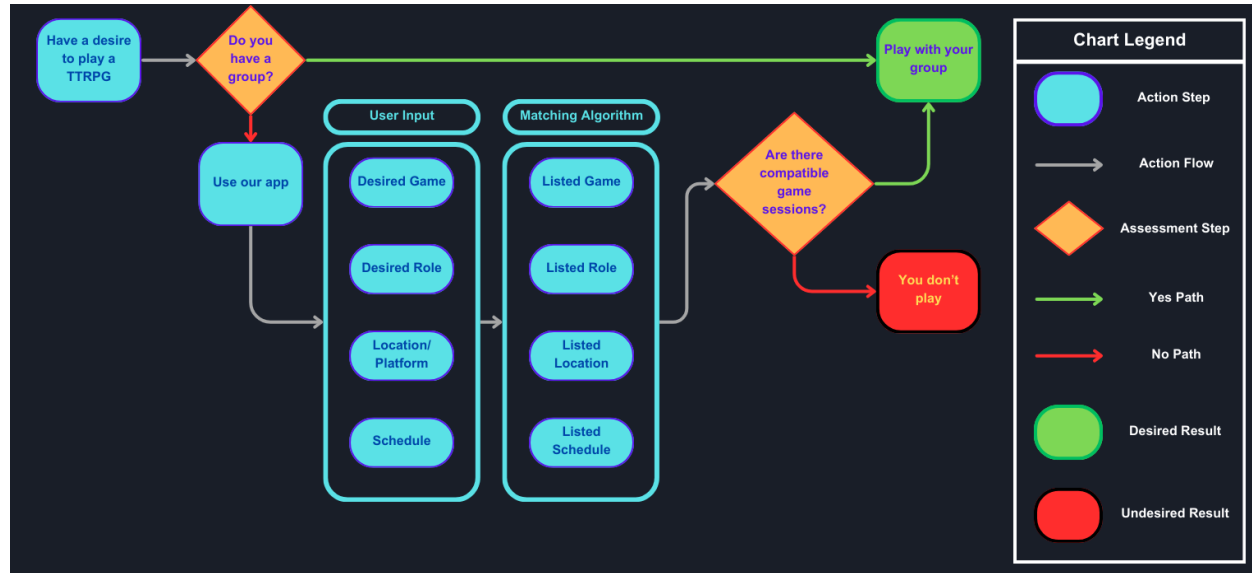

Figure 3. Current Process Flow

Figure 4. Solution Process Flow

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 game master (GM) and the rest of their players.

The game master'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

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- **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

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 game master (GM).

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

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

Roles : Refer to the specific functions or responsibilities that players or characters take on with the game. (e.g., Game Master, Dungeon Master, Player Characters)

Playstyles : Refers to the different ways players approach the game. These vary based on the individuals' preferences and can affect both roleplay and game mechanics. (e.g., Min-maxer, Role-player, Storyteller, Socializer, Casual gamer.)

5 References

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