

**Team Name:** Game Fame

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**Part 0:** Python + Linux

### **Project Proposal**

We wish to create a web application which allows users to make an account, log in, and invite their friends to 2-player games like tic-tac-toe, hangman, and chess. Although there are platforms which already support some multiplayer games, we wanted to build something simple and easy to use with the most popular games played. Classics like tic-tac-toe and chess are always going to be around and having a quick and responsive UI with no ads or distractions may be a nice way to relax with a slightly competitive edge.

These are the main components we want to incorporate into the web app:

1. User authentication via email
  - a. In order to start games, users will have to create an account with their email addresses
2. Email invite system
  - a. Users will have the option to start games with friends via username. If the username is not found, the user can send an email invitation to his/her friend to register onto the web app
3. Active Games
  - a. Each user will have access to all active games being played
4. Player History
  - a. For every user with an account, there will be a lookup system which will show the stats of the user (games won, win percentage, etc.)

The APIs we will be using are the Firebase API (Pyrebase for Python) for user authentication and backend services and Gmail API for emailing invitations to games. We will be using Flask framework for web development and simple HTML + CSS + JavaScript for web element rendition.

### **User Stories**

#### **Minimal Viable:**

*1: As a user, I want to log into the website so that my game history is saved. My conditions of satisfaction are being able to see my wins and losses for the games I have played.*

2: As a user, I want a simple UI so that I can play tic-tac-toe with my mom! My conditions of satisfaction are that there are no ads, we log in via email, and the app is hosted on a website.

3: As a user, I want a menu of available games so that I can see all the games that I can play with my friends. My conditions of satisfaction are a grid or list of playable games.

4: As a user, I want descriptions of games so that I can understand games that I am not familiar with. My conditions of satisfaction are that every game must contain a description as well as instructions.

5: As a user, I want to be able to switch between games that I am playing so that I am not forced to play only one game at a time with just one friend. My conditions of satisfaction are I must have a list of active games so that I can easily switch between games.

6. As a user, I want to have an in-game text chat so that I can talk to my friends during games without having to use an external messaging service. My conditions of satisfaction are that messages display in real-time, have timestamps, and are persistent.

**If Time Allows:**

a: As a user, I want leaderboards so that I can keep track of points I have gained by winning games. My conditions of satisfaction are that users must be ranked in order based on the amount of points they have gained from winning.

b: As a user, I want shareable links so that I can send a link to a friend and play games. My conditions of satisfaction are I can click on a game, create a link, and send it to a friend and play with them.