



CS1530 - Milestone 1

Group 11 - Joseph Paul, Faaris Ismail, Dominic Karras, Mike Voit, Zach Grimaldi

DEMO: <https://pingg.tech>

Source Code (GitHub): <https://github.com/zpg6/pingg>

1.0 Scope

Pingg is a social networking site designed for gamers to link up and play their favorite games both online and in person. The service will primarily allow users to discover new players who play similar games, with the ability to filter by location, average ping, and recently played games, along with stats and playstyles on a per-game basis. Users will be able to set a searchable primary alias on their profile along with a list of aliases they have used in other games. They will also be able to add a small visual flare to their profile by choosing from a preset list of icons.

1.1 Functions:

1. Add new users (create an account)
2. Set up profile
3. Ask users about their preferences
4. Recommend games/people
5. "Infinite" scrollable feed
6. Heat map of current players for different games
7. Follow games and people
8. Make public posts
9. Send private and group messages

1.2 Performance:

The diagram on the next page outlines the development workflow for the app, along with the components and services that the app will be built on. As Pingg will be developed on the Firebase platform, the performance for clients will be largely tied to the services provided by Firebase, which include hosting, storage, and authentication. This provides a very positive outlook for performance, since Firebase uses Google's infrastructure as a backend, and will scale to suit the app's usage needs. Notably, the free version of Firebase's service will be

sufficient to support the current limited scope of the project. Firebase also includes useful tools for analytics, performance monitoring, and crash reporting which will help improve performance consistency.

1.3 Limitations:

This project will feature an implementation of Pingg that is limited by available data and expected scope, along with issues involving language and localisations. The most significant limitation will be the amount of available data. Many features of Pingg, including search and recommendation algorithms, will be designed to work best with large volumes of both user and game data that will be infeasible to obtain using current resources. Pingg will also be limited by its intended scope. Certain possible features, such as the ability for users to purchase games through the service, will be left off to ensure a better-focused, high quality experience. Finally, Pingg will not be offered globally on initial release due to linguistic barriers. Similarly, only games that have been released in a given region will be available to users from that region.

2.0 Tasks

- Site Mapping
 - Intuitive and convenient organization of features into browser pages
 - User interface → Lightweight, responsive, emphasis on usability for all screen sizes and platforms
 - Database Object Design
 - User data and game data stored on Firebase NoSQL Cloud database
 - Hosting for the application
 - Backend functionality
 - Search
 - Data interpretation
 - Recommendation algorithm
-
- Site Mapping: As a precursor step, a plan of the site will be created as an overview of how the site will be organized, and which features are accessible from each part of the site. This will provide guidelines for the UI design, and will help to create an intuitive and convenient organization of features into browser pages.
 - User Interface: The UI will be lightweight and responsive, with a design goal of maximizing usability on all screen sizes and platforms.
 - Storage: A large database of user and game data will need to be organized and stored on cloud servers where it can be quickly and consistently accessed by the application.
 - Application Hosting: The application will also need to be hosted on servers to be accessed by clients.
 - Backend Functionality:

- Search: A search function will be implemented that clients can use to access the database and find users, games, or posts made by users.
- Data Interpretation: In order to populate user feeds and the game activity heatmap, it will be necessary to sort and interpret the data in various ways.
- Recommendation Algorithm: This will give recommendations to users of people, games, and posts based on the interests they submit.

3.0 Resources

3.1 Hardware:

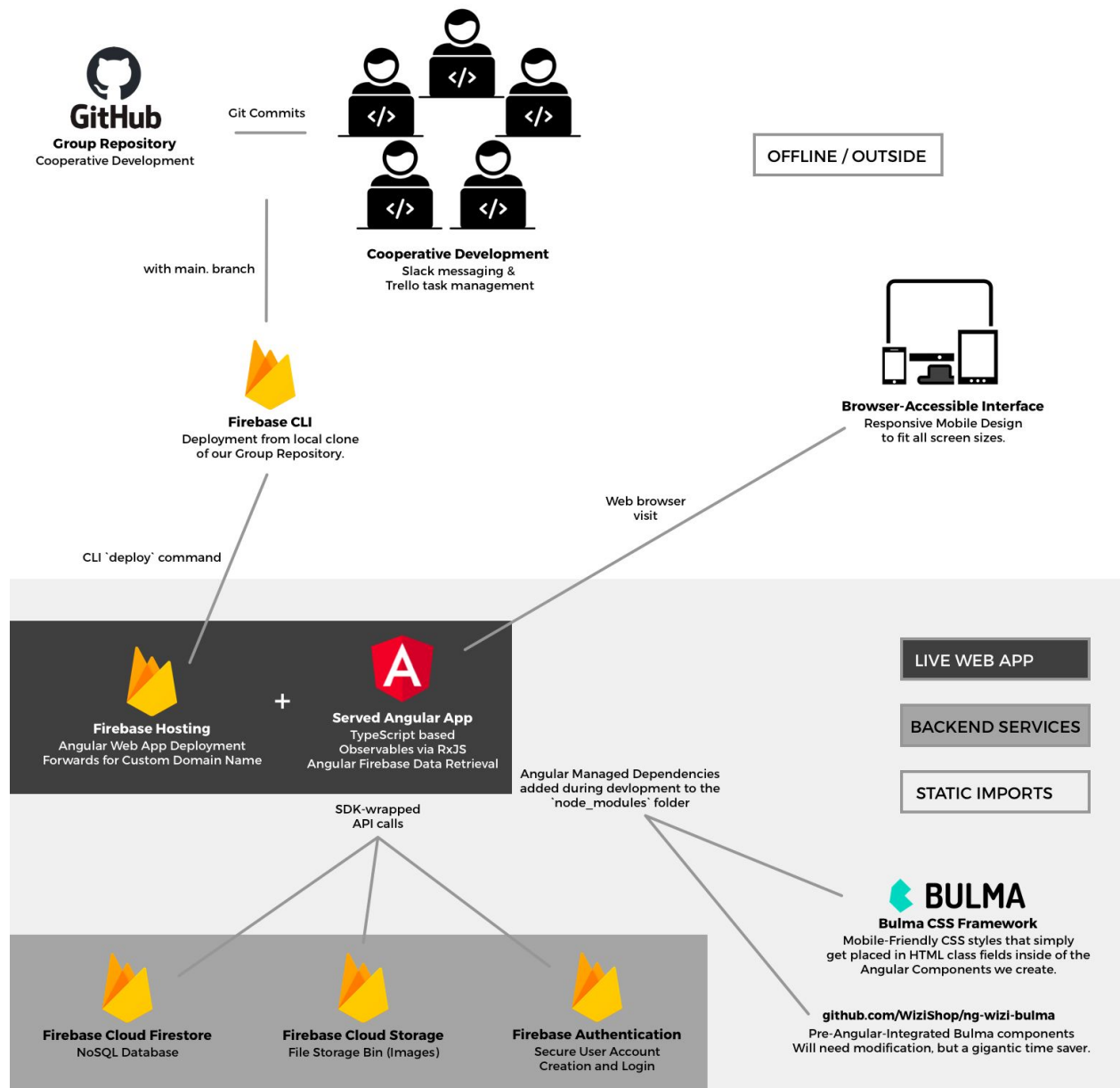
- Development
 - At minimum, personal computers will be required with specs sufficient to run most 2D design programs
 - A Mac Mini server may be used for local testing
- Deployment
 - The app will be deployed on Google web servers provided by Firebase Hosting

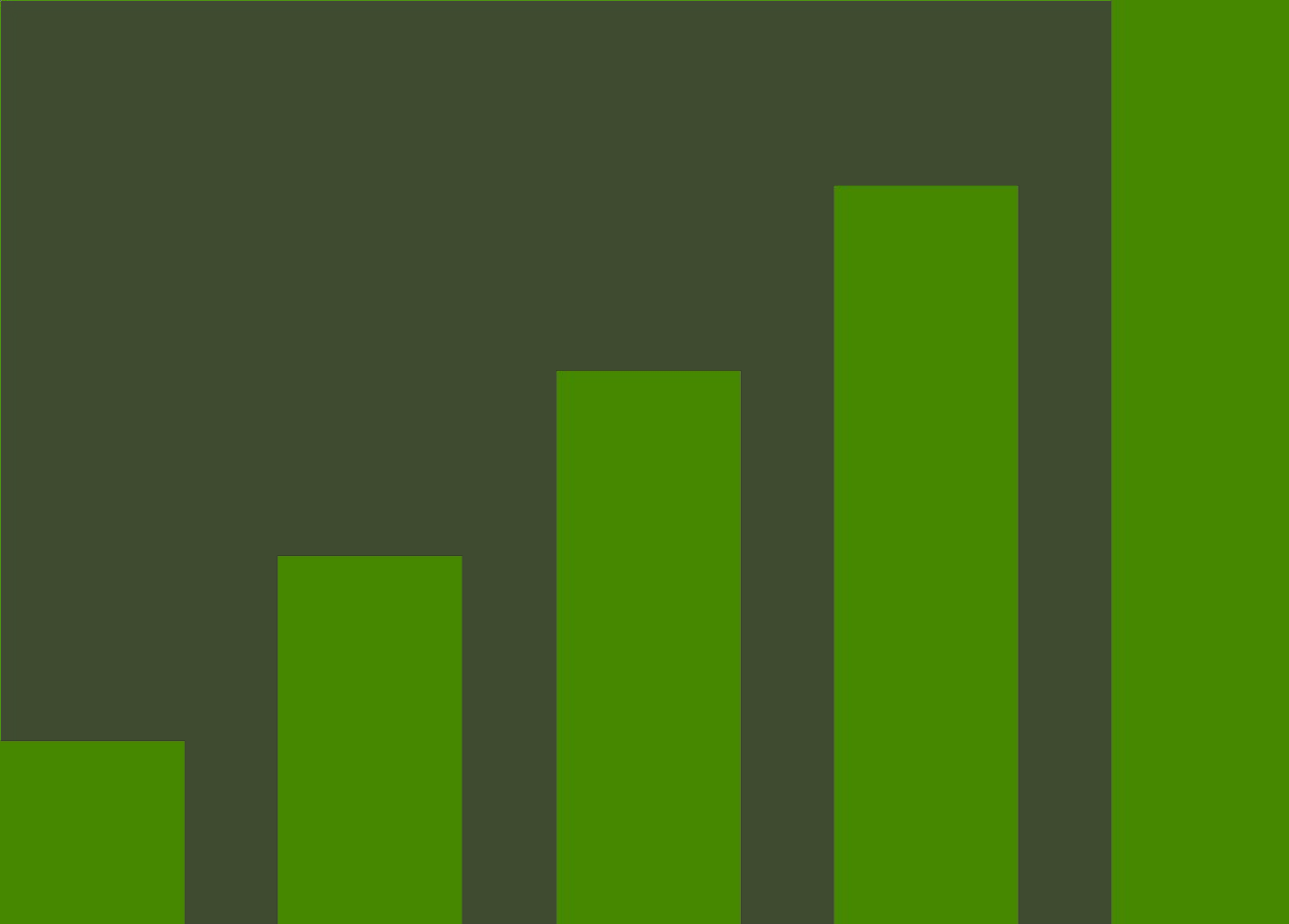
3.2 Software:

- Adobe XD: design and prototyping of UI and site map
- Angular: programming architecture for application backend
- Github: hosting site for programming collaboration
- Slack: messaging app for team communication
- Trello: virtual “corkboard” for planning and task management

3.3 People:

	Project Manager	Document Specialist	GUI Programmer	Database Programmer	Application Programmer	Tester	Salesperson
Zach Grimaldi			x		x		
Dominic Karras		x					x
Faaris Ismail		x	x				x
Joseph Paul	x			x	x	x	
Mike Voit				x	x	x	





**Dominic
Karras**

**Faaris
Ismail**

**Zach
Grimaldi**

**Joseph
Paul**

**Mike
Voit**

pingg

**Software Plan
Presentation**

**CS 1530
S. K. Chang**

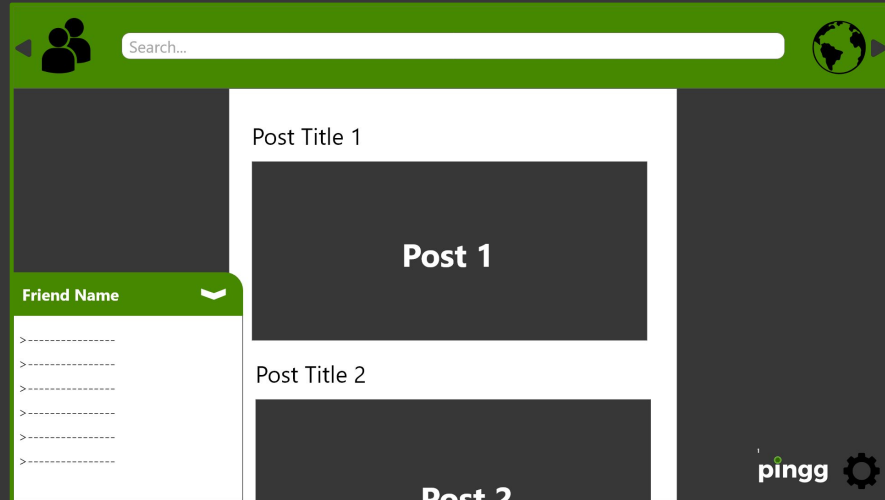
Group 11

Problem

- With the widespread use of multiplayer gaming, players are eager to jump online and play a game with others. However, finding others who are online and are interested in playing similar games can be challenging. Additionally, matching with random players who are far away, unskilled, or have a poor connection can cause a frustrating gaming experience.
- To help solve these issues, users can sign up for Pingg. Pingg is a social networking site designed for gamers to link up and play their favorite games both online and in person. The service will primarily allow users to discover new players who play similar games, with the ability to filter by location, average ping, and recently played games, along with stats and playstyles on a per-game basis. Users will be able to set a searchable primary alias on their profile along with a list of aliases they have used in other games. They will also be able to add a small visual flare to their profile by choosing from a preset list of icons.

Feed

One of the primary features within Pingg is the feed tab. The feed is infinitely scrollable and is curated to each user. The feed consists of posts from people, games, and interests the user is following, as well as showing them recommendations.



Map

The map feature allows users to see the relative location of other players who are online. Using the Google Maps API, users can see how close others are in relation to them. This can be useful as players may want to match up with people who are close to them and have a lower ping, resulting in a better gaming experience.



Social

The social tab allows users to directly communicate with other users. They can send private and group messages, and connect with other Pingg users who have similar interests. Users will also have access to their friends list and see their current status.

