



# Settlers of Catan

Release 2 - May 10th

# Agenda



Introduction



Progress



Insights



Demo



Summary

# Introduction

# Team



Drew Hall  
*Developer*



Elena Belashchenko  
*Developer*



Landen Fogle  
*Developer*



Sarah Cunningham  
*Developer*

# Project Vision

We will build an **accessible** web application version of the board game **Settlers of Catan** by providing an **intuitive**, **interactive**, and **enjoyable** game that will provide players with the opportunity to **think strategically** while also having **fun** and **competing** with friends and strangers.

# Project Progress

# Release Deliverables

R2

- Full Game play
- Navigation
- Multiple gamesessions
- Hosting
- Testing

# What we promised in R1

- ☒ Finish Gameplay Functions
- ☒ Incorporate more detailed turn logic
- ☒ User Authentication
- ☒ User Profiles/Statistics
- ☒ Stats page
- ☒ Landing page
- ☒ Join game page
- ☒ Hosting



# Bonus Items

- ☒ Trading with bank
  - ☒ Potential roads and settlements hints
  - ☒ Most Roads card
  - ☒ Largest Army card
  - ☒ Send Invite code
-

# Accessibility Practices

- 1) Prioritized high contrast colors
- 2) Verified styles in multiple browsers
- 3) Emphasized large fonts
- 4) Chose easily readable fonts
- 5) Added alternative text to all photos

# Product Insights

# Game Lobby



CREATE ROOM

Creates a new room and adds it to the list of games currently being played

# Game Lobby



JOIN ONLINE ROOM

Joins a random game session that hasn't yet been started and starts one if none are available

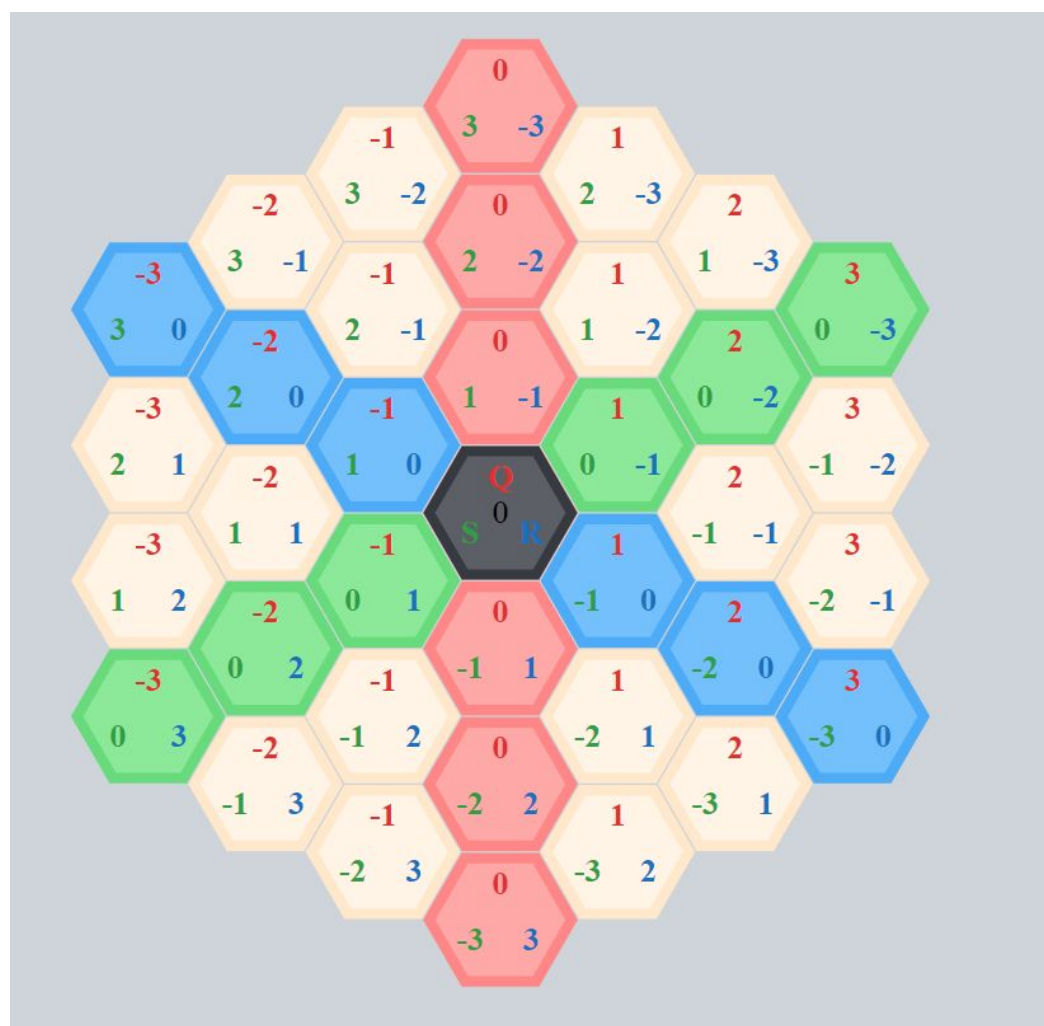
# Game Lobby



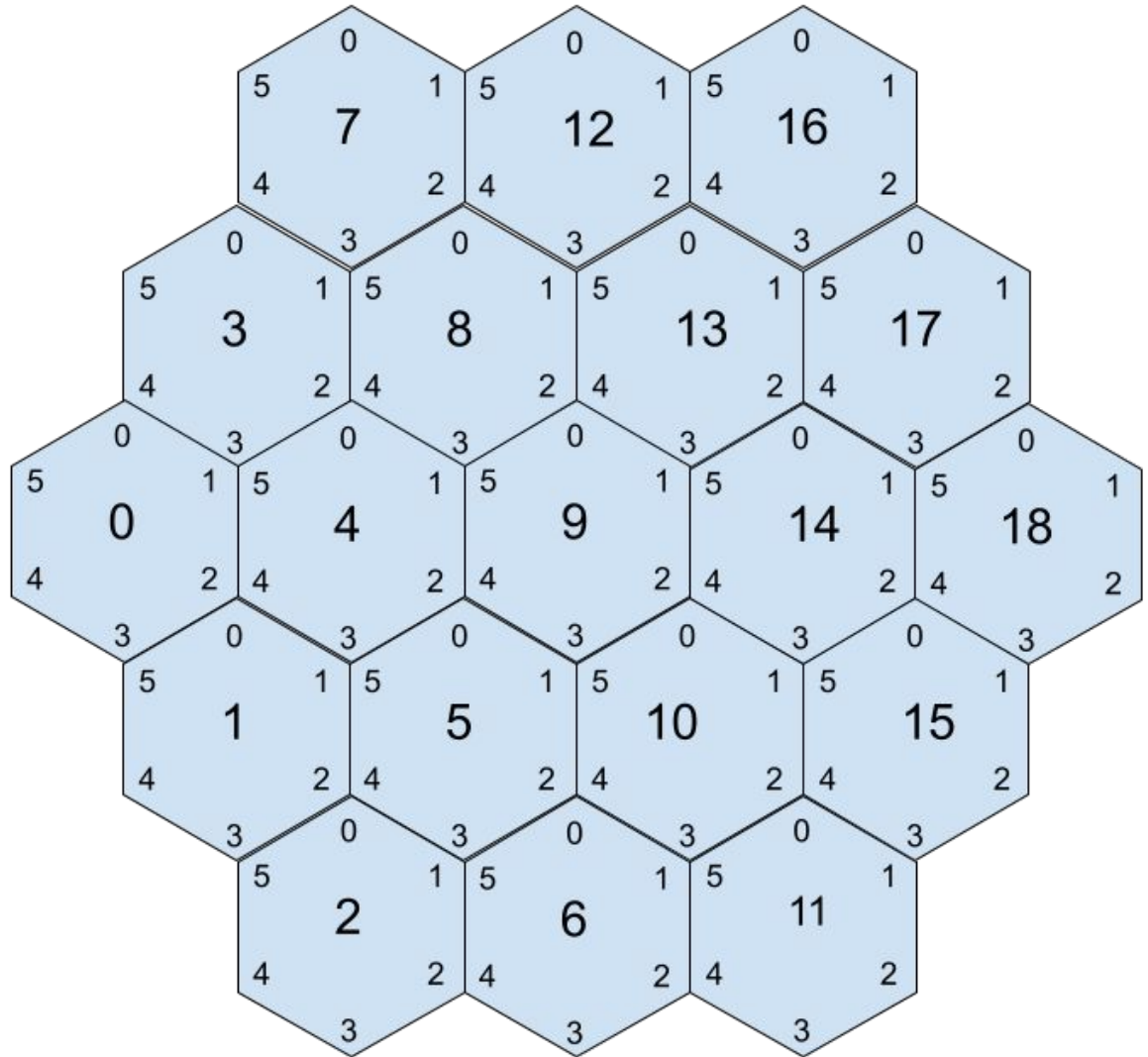
Enter Game Code →

Users enter a game code and join that specific game session

# Hexagonal Grid

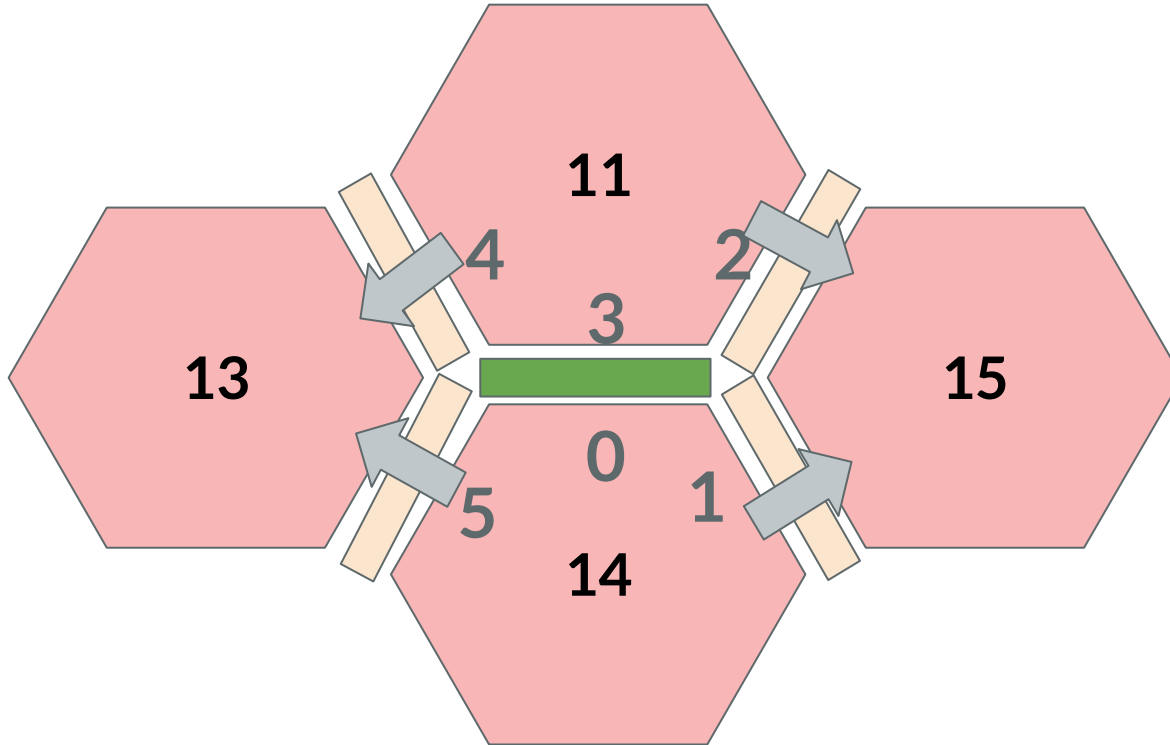


# Hexagon Tiles





# Lets buy a Road!



Buy (11,3)

Pr (11,2) & (11,4)

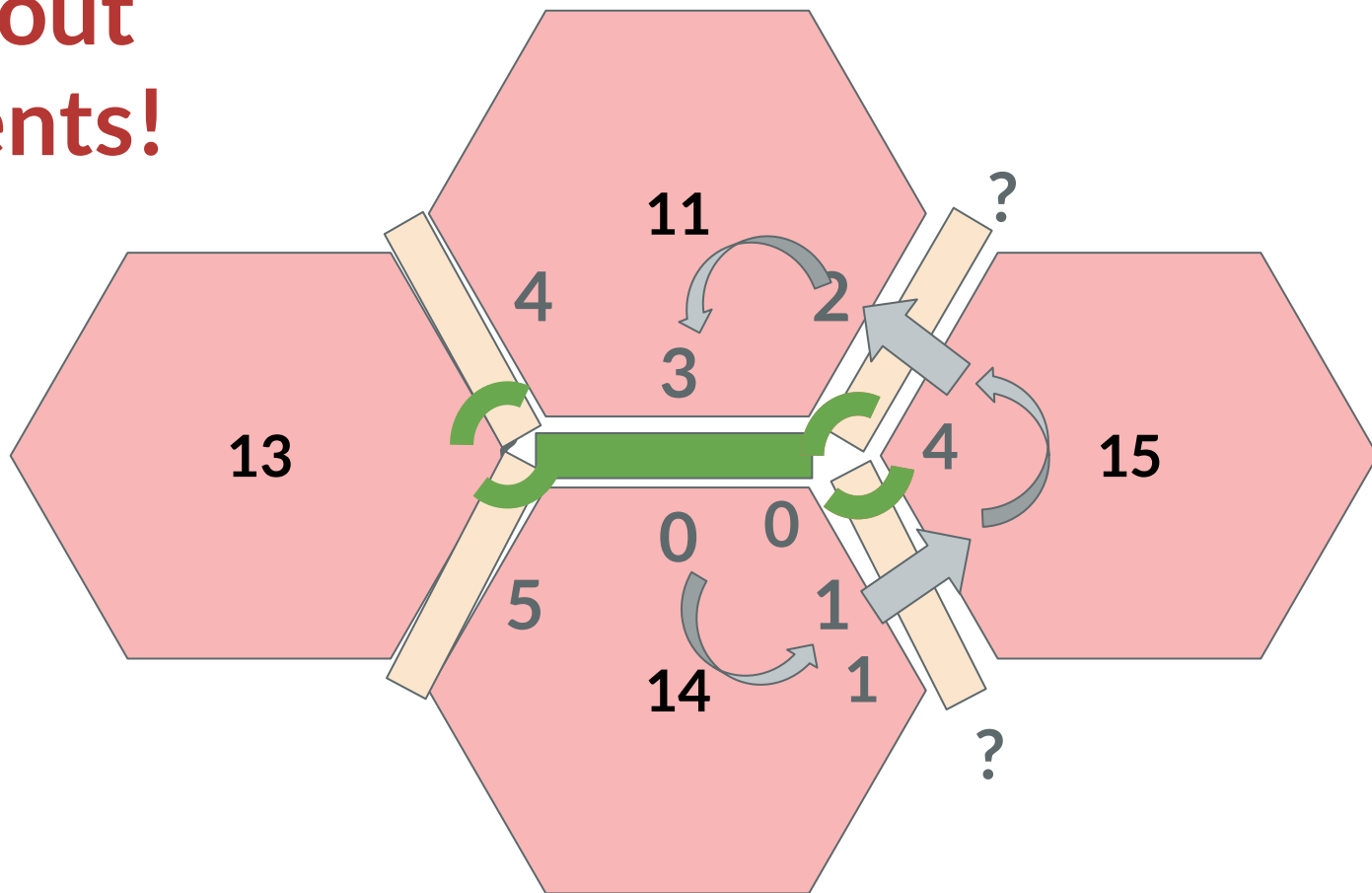
Buy (14,0)

Pr (14,5) & (14,1)

Pr (15,5) & (15,4)

Pr (13,1) & (13,2)

# What about settlements!



# Deployment

## Frontend

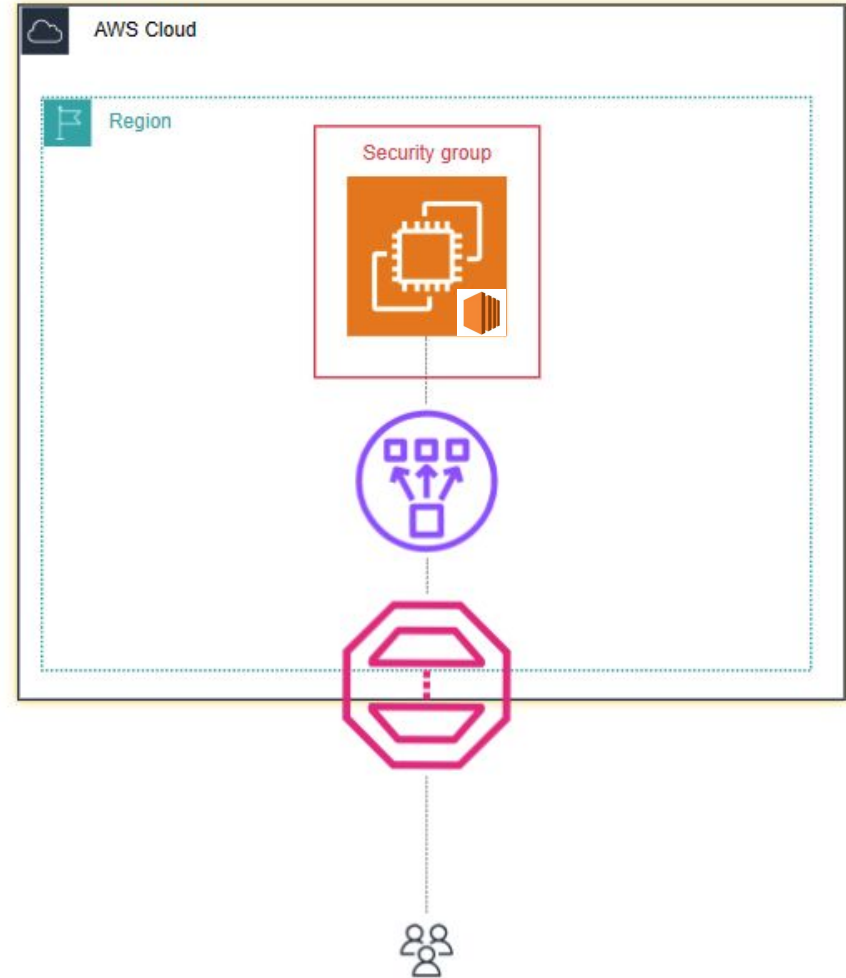
- Firebase hosting (free)

## Backend

- AWS EC2 with surrounding infrastructure
- Secured with Caddy on public ip address

## Database:

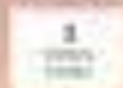
- Firestore (Free) - No SQL



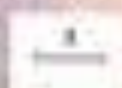
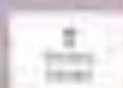
# Product Demo



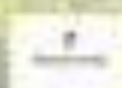
Landen Fogle



SirFatredVIII



elenaaaaahh



victory points  
7



Try it out yourself!

<https://catan-4dea2.web.app/>

# Summary

# Original Requirements

- ☑ User registration
  - ☑ Unique user IDs
  - ☑ Encrypted passwords
  - ☑ Session authentication
- ☑ Back-end functionality:
  - ☑ Logic to support front-end
  - ☑ Database for user profiles and statistics
- ☐ User profile
  - ☑ Change password
  - ☐ Update profile
  - ☑ Upload profile image
  - ☐ Change profile image
  - ☑ View game statistics
- ☑ Web-based GUI with real-time game events



## Bonus Goals Met

- Encryption of back-end database
- Hosting

# Summary

## Learning Curves

- Testing
- Hosting
- Hexagonal board structure

## Challenges

- Potential roads & settlements
  - Edge detection
  - Bugs galore
- Github problems
  - "What is this, merge conflict city?" - Drew at 1 AM on May 10th

# Next steps

If we had more time

- ❑ Address hiding bugs
- ❑ Refactor gameplay.ts
- ❑ 100% accessibility
- ❑ Trading with players
- ❑ Global Stats
- ❑ Friends list
- ❑ Ports
- ❑ Robber
- ❑ NPC
- ❑ Turn Timer

questions?