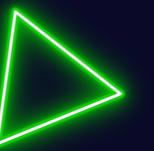


# POKER 111

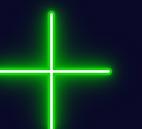
ITCS 461 COMPUTER AND COMMUNICATION SECURITY

SLIDE 01

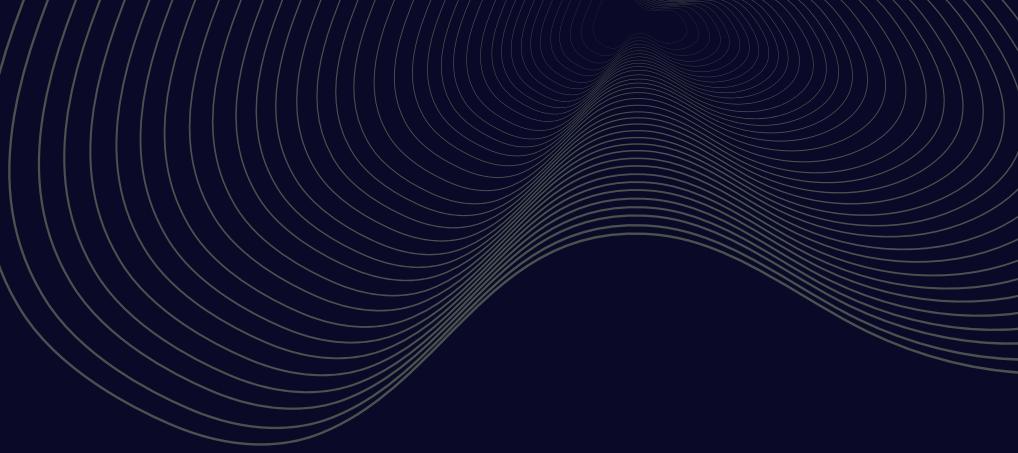


# WELCOME TO OUR POKER111

**Problem:** Online poker involves real money transactions, creating high stakes for both players and operators. Customers need trustworthy platform where their funds and gameplay is protected.



**Objective:** We aim to create a secure online poker platform that prevent cheating



# TECHNOLOGY USED

# PROGRAMMING LANGUAGE & TOOL

LANGUAGE:



HTML



CSS



Javascript



TOOLS:



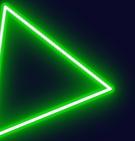
Visual Studio Code

Write game interface and  
game logic

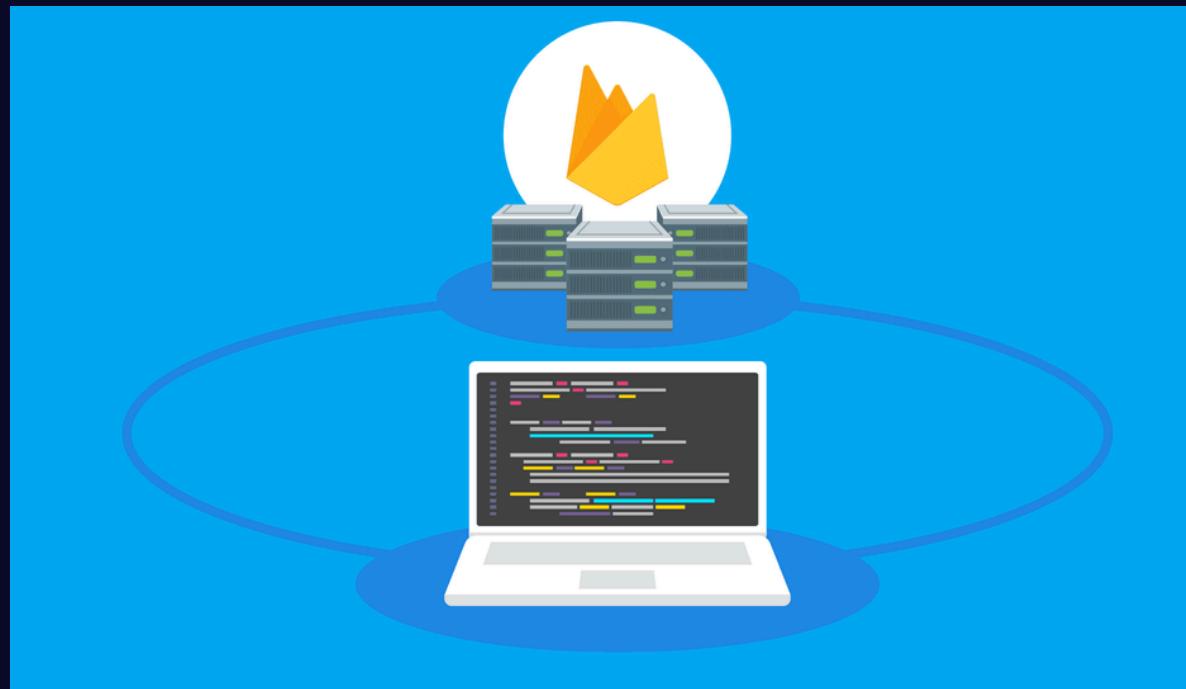


Firebase

Host websites and record  
the data



# FIREBASE REALTIME DATABASE



**Firebase Realtime Database** is a cloud-hosted NoSQL database provided by Google as part of the Firebase platform. It allows developers to store and sync data between users in real time across all connected clients.

## Key Features:

- **Real-time syncing:** Changes in data are instantly pushed to all clients (e.g., mobile apps, web apps) listening to that data.
- **JSON format:** Data is stored as a big JSON tree, which makes it flexible and easy to use.
- **Offline support:** Apps can read and write data even when offline. When the device reconnects, it syncs the changes.
- **Cross-platform support:** Works with Android, iOS, and web apps.
- **Security:** Uses Firebase Authentication for user-based security and rules for access control.

# 🔥 FIREBASE HOSTING: FAST, SECURE, AND SIMPLE WEB DEPLOYMENT

## What is it?

- A static web hosting service by Google (part of Firebase)
- Designed for hosting HTML, JavaScript, CSS, and modern SPA frameworks (React, Vue, Angular, Flutter Web)

## 💡 Key Features

- Secure: HTTPS enabled by default
- Fast: Content is served via a global CDN
- Integrated: Easily connects with other Firebase services like Firestore, Authentication, etc.



# POKER888



# SYSTEM DESIGN

## Frontend (Client-Side)

Technologies:

- HTML/CSS/JavaScript
- Hosted on Firebase Hosting

Responsibilities:

- Render poker game UI (cards, table, player avatars, chips)
- Handle user input (bets, fold, check, raise)
- Connect to backend (Firebase Realtime Database or WebSocket server)
- Maintain player state (current hand, bet amount, turn status)

## Backend

Technology:

- Firebase Realtime Database

Used for:

- Storing game state (player hands, chips, turn info, pot size)
- Broadcasting real-time updates (using listeners on database nodes)
- Simple authentication (Firebase Auth)



# GAME LOGIC

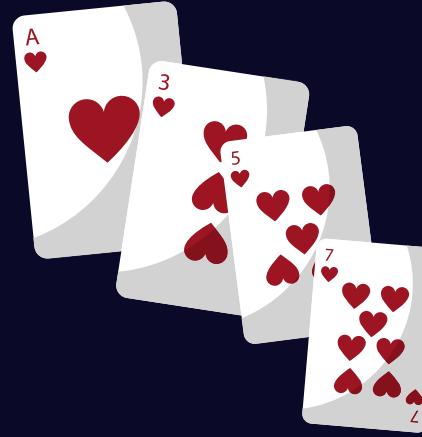


## How It Works

1. Each player gets cards.
2. Five community cards are placed face-up on the table — everyone can use them.
3. Players take turns betting.
4. After all cards are shown, the best 5-card hand wins.

## What can you do in your turn

- Check – Do nothing, pass the turn.
- Bet – Put chips in the pot.
- Call – Match someone else's bet.
- Raise – Increase the bet.
- Fold – Quit this round, lose your cards.



## Common Poker Hands (Best to Worst)

1. Royal Flush – A♠ K♠ Q♠ J♠ 10♠
2. Straight Flush – Five in a row, same suit
3. Four of a Kind – Like 4 Jacks
4. Full House – 3 of a kind + a pair
5. Flush – 5 cards, same suit
6. Straight – 5 in a row (any suit)
7. Three of a Kind
8. Two Pair
9. One Pair
10. High Card – No combo, highest card wins

## To gain chips

- Having the best hand when cards are revealed
- Making other players fold before the showdown

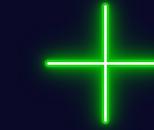
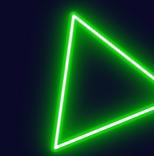


# POKER DEMONSTRATION

Link: <https://byepoker888.web.app/>



# POKER LIMITATION



- **The game is limit for 2-4 players**
- **Our game logic is broken and cannot go other game phase other than [pre-flop]**
- **Game Variants:** The platform may support only a single variant of poker, such as Texas Hold'em, without options for other popular variants like Omaha or Seven-Card Stud.
- **User Interface and Experience:** The simplicity of the interface suggests it may lack advanced features like chat functions, player statistics, or hand histories.

# REFERENCE



Game design references

<https://github.com/dougdonohoe/ddpoker>

<https://www.pokerscript.net/open-source-poker.html>



# THANK'S FOR LISTENING

Please don't forget that 99% of gamblers quit before getting a hit, so don't stop gambling, everyone.