



BINGO

Client-Server Application

INTRODUCING OUR BEST TEAM

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Implementation of Client Program
Presentation and Report.

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Implementation of client

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Implementation of Server

EXPLAINING ALL ABOUT APP

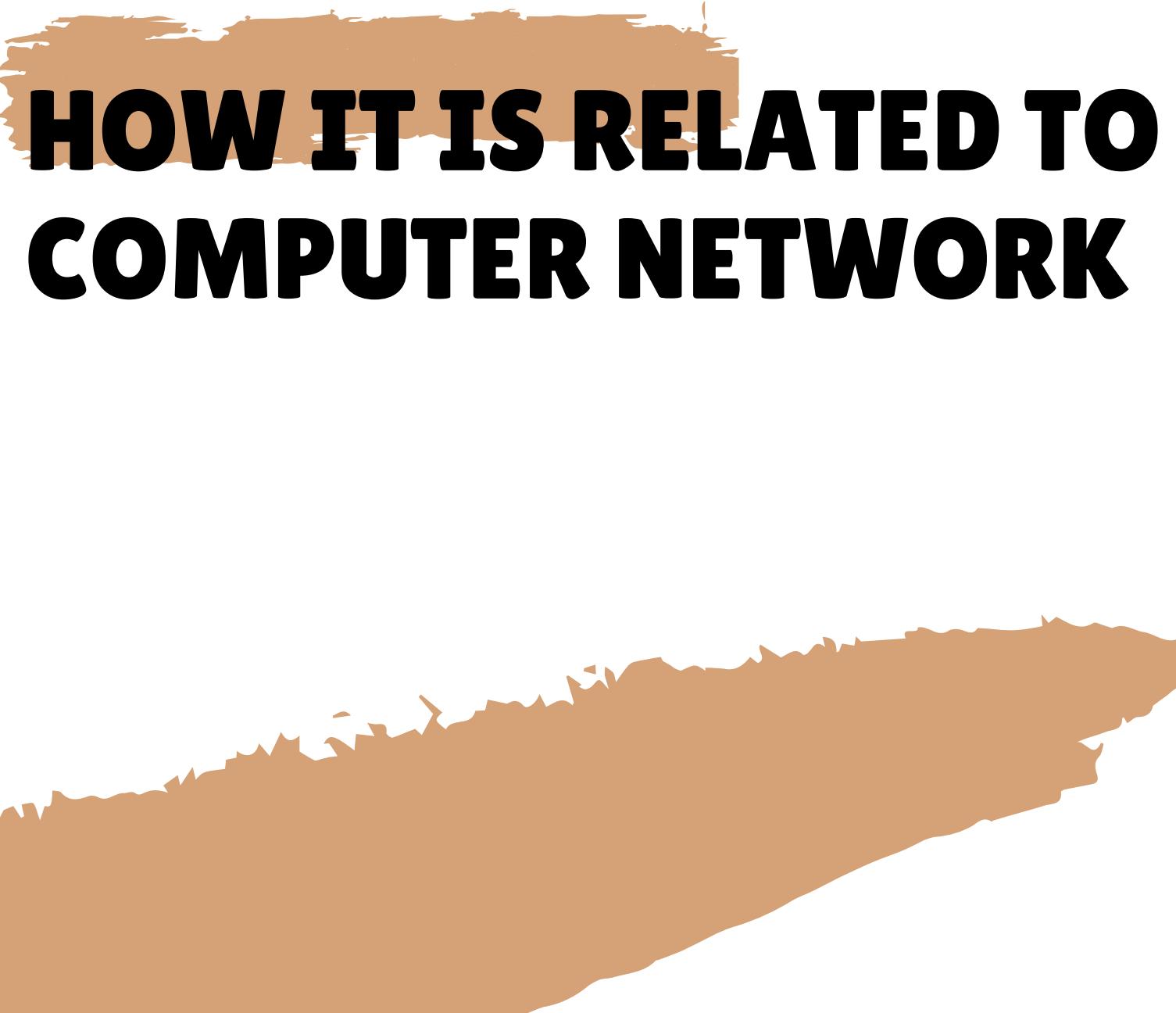
WHAT IT IS

- This is a multi-player, client-server implementation of the Bulls and Cows game.

HOW IT WORK ?

- Specific to this implementation, a server program will manage single and multi-player games.
- The server will generate a random sequence of coloured pegs for them to guess.
- The player is assigned a random sequence of 4 coloured pegs with the goal of guessing the correct position and colour of each peg.



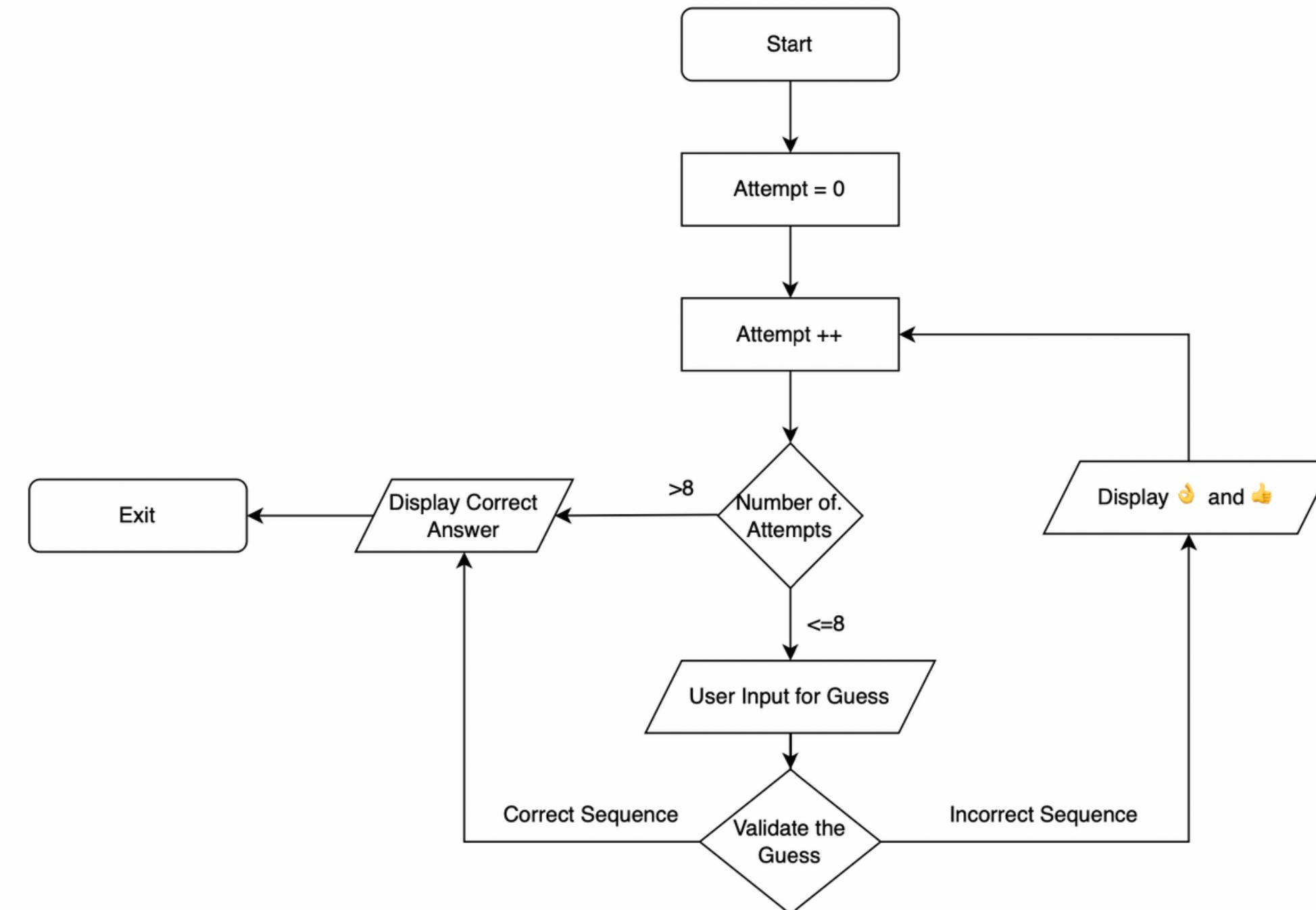


HOW IT IS RELATED TO COMPUTER NETWORK

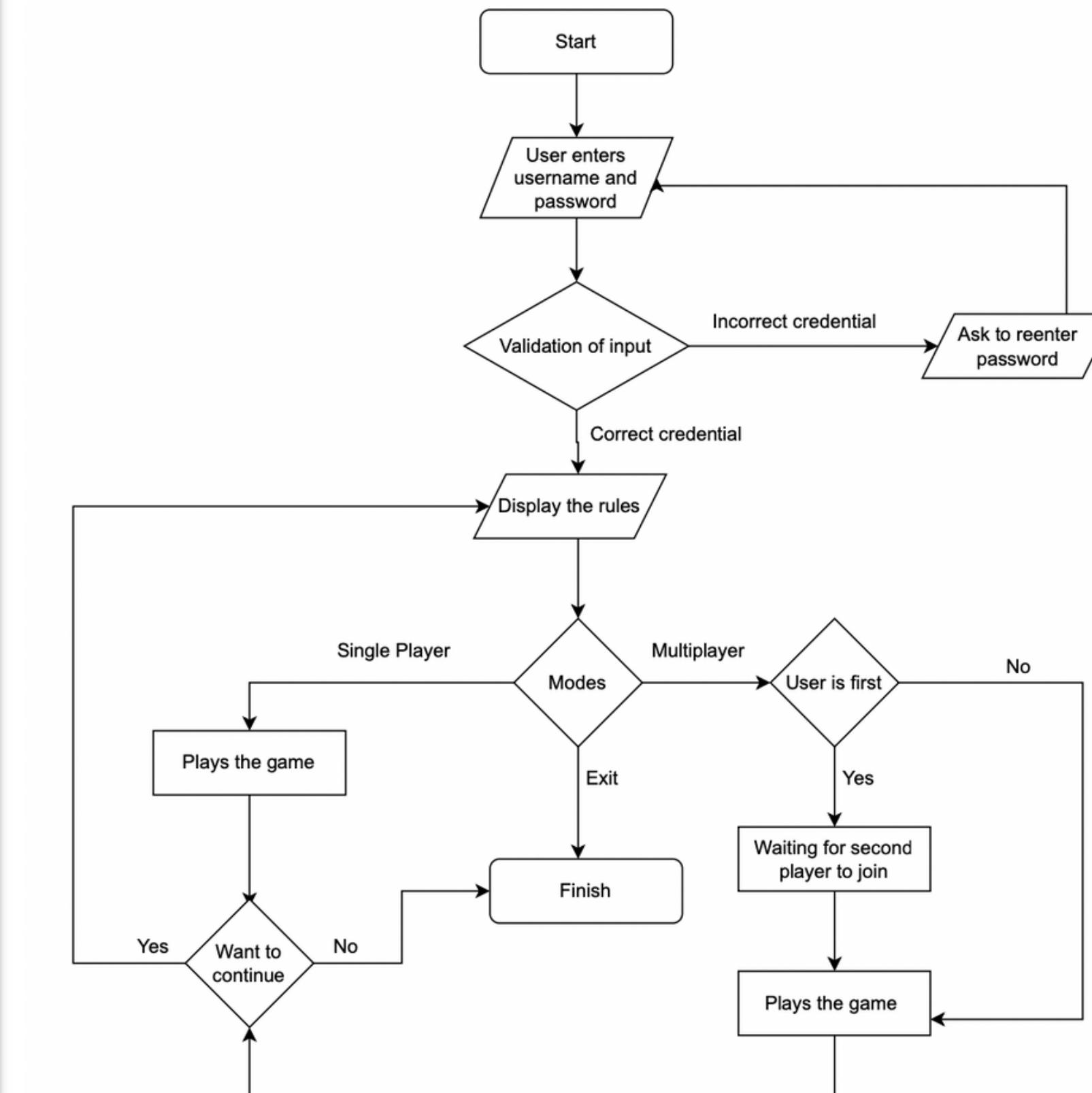
- TYPE
- RPC
- TRANSPORT LAYER
- NETWORK LAYER

3.1 PLAY THE GAME

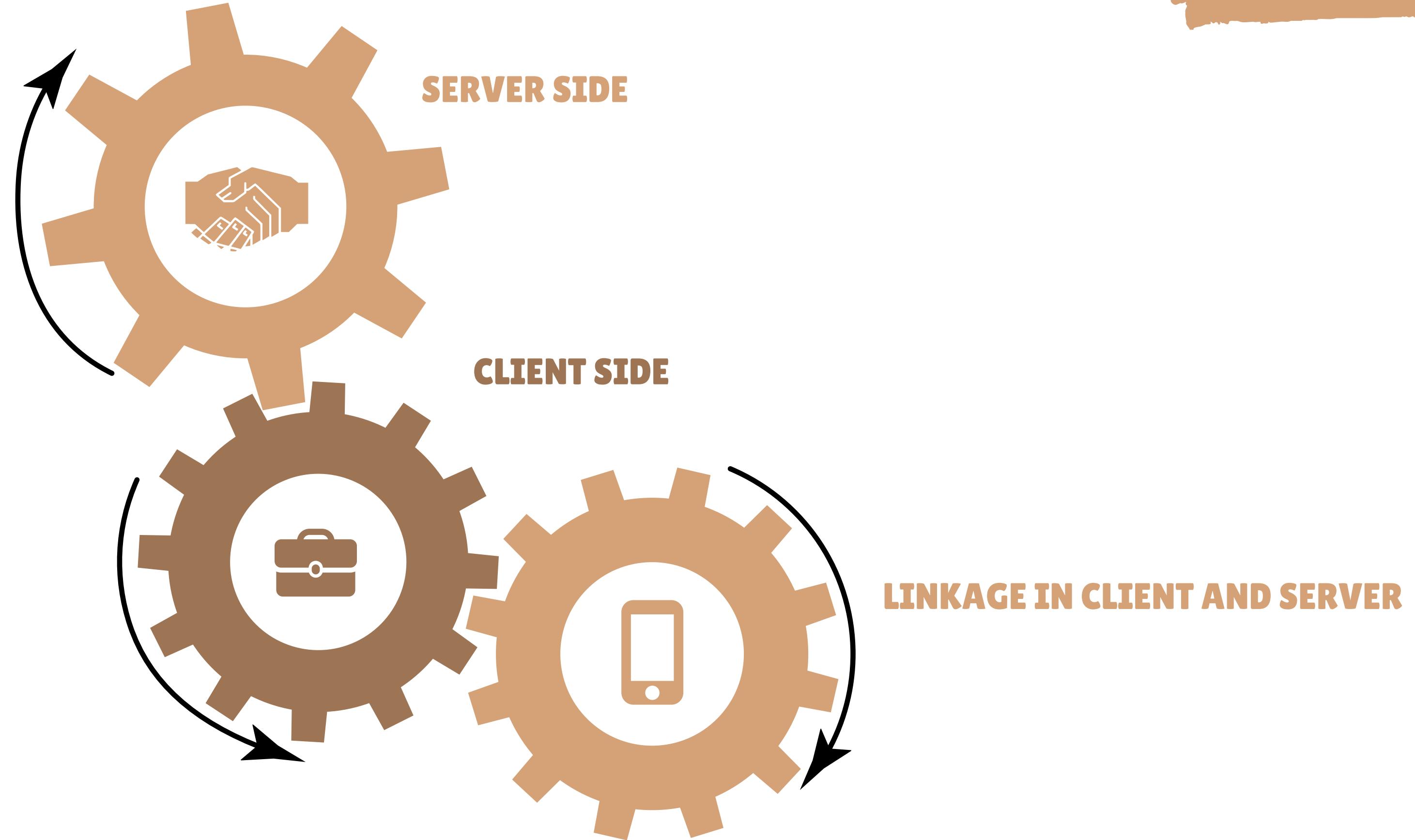
HOW THE GAME WORKS



HOW THE APP WORKS



ROLE OF SERVER AND CLIENT

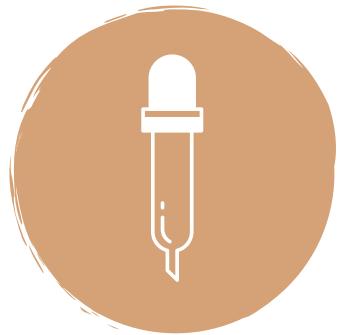




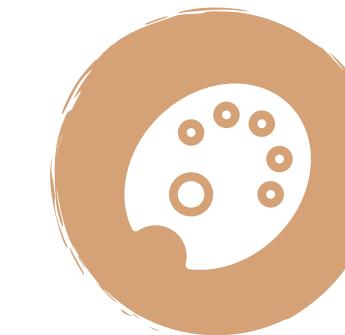
SERVER'S ROLE



STEP ONE
Creating a socket

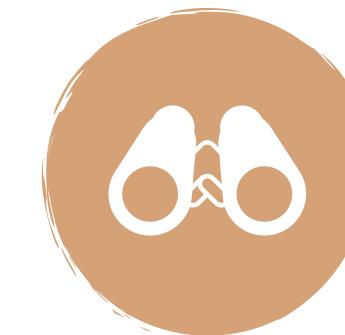


STEP TWO
Bind to address



STEP THREE

Listen and wait for connection to be established



STEP FOUR

Start Mutual exclusion and interaction with client



STEP FIVE
End mutual exclusion and interaction with client

```
[dhairyaoza@Dhairyas-MacBook-Pro ~ % cd Desktop/BINGO  
[dhairyaoza@Dhairyas-MacBook-Pro BINGO % ./server
```

STEP ONE

... SERVER HAS CREATED SOCKET ...

STEP TWO

... SERVER IS BOUND TO ADDRESS ...

STEP THREE

... SERVER IS LISTENING ...

STEP FOUR

```
[CLIENT #0] LOGIN  
  
USER NAME: Tanish PASSWORD: Tanish@1  
LOGIN SUCCESSFUL
```

```
-----  
... NEW CONNECTION ACCEPTED [Sock#5] ...  
  
... START THREAD FOR CLIENT #1... SERVER IS LISTENING ...
```

STEP FIVE

```
[CLIENT #0 : clien1] DISCONNECT  
  
-----  
... END THREAD FOR CLIENT #0 ...
```

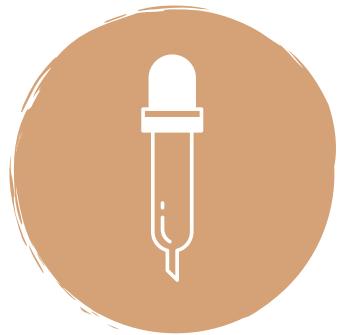


CLIENT'S ROLE



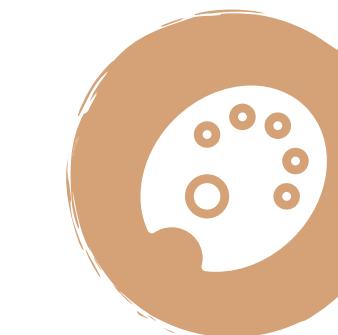
STEP ONE

Enter credentials



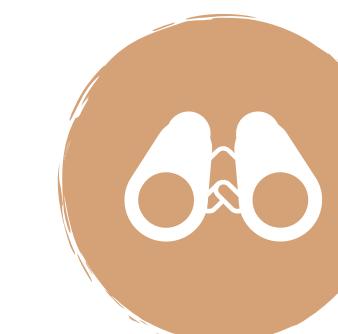
STEP TWO

Learn rules and select the mode whether to play single or multiplayer mode or exit.



STEP THREE

Apply one's genius mind and solving game



STEP FOUR

After completion of game user can play again



STEP FIVE

Logout from the system

SINGLE PLAYER MODE

STEP THREE

STEP ONE

```
and one special character (~!@#$%^&*)  
>>> USER NAME: Tanish  
>>> PASSWORD: Tanish@1  
  
[YOU ARE LOGGED IN] HELLO Tanish  
  
*****  
BINGO 4/6  
*****  
▼ RULES  
Your goal is to guess the correct sequence of 4 colored pegs.  
You have 8 attempts to guess. For each attempt,  
you will get feedback with the number of HITs and BLOWs  
  
👉 : right color at right position  
👉 : right color but wrong position  
  
▼ SELECT OPTION  
1. SINGLE-PLAYER MODE  
2. TWO-PLAYER MODE  
3. EXIT GAME
```

STEP TWO

```
WANT TO CONTINUE? (Y/N)  
>>> y
```

STEP FOUR

```
▼ SELECT OPTION  
1. SINGLE-PLAYER MODE  
2. TWO-PLAYER MODE  
3. EXIT GAME  
  
>>> 1  
  
ATTEMPT NUMBER :1  
  
ENTER 4 NUMBERS SEPARATED BY A SPACE  
PEG OPTIONS ► 1:❶ 2:❷ 3:❸ 4:❹ 5:❺ 6:❻  
  
>>> 3 4 5 6  
  
CONFIRM? (Y/N) ❸ ❹ ❺ ❻  
>>> y  
  
👉: 0 👈: 3
```

STEP FIVE

```
▼ SELECT OPTION  
1. SINGLE-PLAYER MODE  
2. TWO-PLAYER MODE  
3. EXIT GAME  
  
>>> 3  
  
[YOU ARE LOGGED OUT] BYE Tanish
```

MULTI PLAYER MODE

```
>>> USER NAME: clien1
>>> PASSWORD: clien1@1

[YOU ARE LOGGED IN] HELLO clien1

*****
BINGO 4/6
*****

▼ RULES
Your goal is to guess the correct sequence of 4 colored pegs.
You have 8 attempts to guess. For each attempt,
you will get feedback with the number of HITs and BLOWs

👉 : right color at right position
👍 : right color but wrong position

▼ SELECT OPTION
1. SINGLE-PLAYER MODE
2. TWO-PLAYER MODE
3. EXIT GAME

>>> 2

... FINDING ANOTHER PLAYER ...
```

```
... FINDING ANOTHER PLAYER ...

clien1 JOINED
```

```
[CLIENT #0 : clien1] SELECT GAME MODE

GAME MODE: 2
START A TWO-PLAYER GAME
ANSWER PEGS ARE SET TO: ⑤ ⑥ ① ④

[CLIENT #1 : clien2] SELECT GAME MODE

GAME MODE: 2
JOINED A TWO-PLAYER GAME
```

```
BINGO, YOU WON

GOOD JOB 😊 clien1 & clien2

ANSWER IS ⑤ ⑥ ① ④
*****
*****
```

WANT TO CONTINUE? (Y/N)

```
>>> n
```

[YOU ARE LOGGED OUT] BYE clien1

CONCLUSION





THANK YOU