



FACULTY OF ENGINEERING AND TECHNOLOGY
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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(Under Section 3 of UGC Act, 1956)

A Project Report

On
Hand Cricket Game

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In partial fulfilment for the Course

of

18CSC302J - COMPUTER NETWORKS in CTECH

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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BONAFIDE CERTIFICATE

Certified that this mini project report "**Hand Cricket** " is the bonafide work of **Kirtan Uchil (RA2011003010484), Shivam Bavaria (RA2011003010495), Darshita Tated (RA2011003010500), and Arpit Agarwal (RA2011003010515)** who carried out the projectwork under my supervision.

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Project Analysis

The topic allocated to us for the socket Programming project is “Hand Cricket”. Here, the client establishes a connection with the server, this implies that the TCP protocol Is being used. The Server Should allocate a new thread for every new incoming Client, to accomplish this feature we took care of concurrent threads which is when the number of connections is made with the server, that time each thread doesn’t interfere with one another. Therefore, we synchronized the thread.

Design and Implementation

- When we are running client1.py then using tkinter making window prompt.
- Same as in client2.py file.
- After Design window prompt we are implement players and select who’s doing bowling & bating.
- Both players are playing game.
- At the end we find out who win or lose match.

Requirement

- **Tkinter**
- **Socket**
- **Subprocess**
- **Python Libraries**

Tools Used

- Programming: Python
- Connection: Socket Programming
- Protocol: TCP
- User Interface: python Tkinter
- Data Storage: Using CSV files
- Data Updates: python-pandas
- Os calls: Python-subprocess

How to Run

1. Open the terminal/command prompt on your pc.
2. Navigate to 'Hand Cricket' folder.
3. Run the command: `python server.py`.
4. Run command: `python client1.py`.
5. A new home page window should open. If this doesn't happen, check your installations.
6. Run command: `python client2.py`.
7. A new home page window should open. If this doesn't happen, check your installations.
8. Now play 'Hand Cricket'.

WorkFlow Description

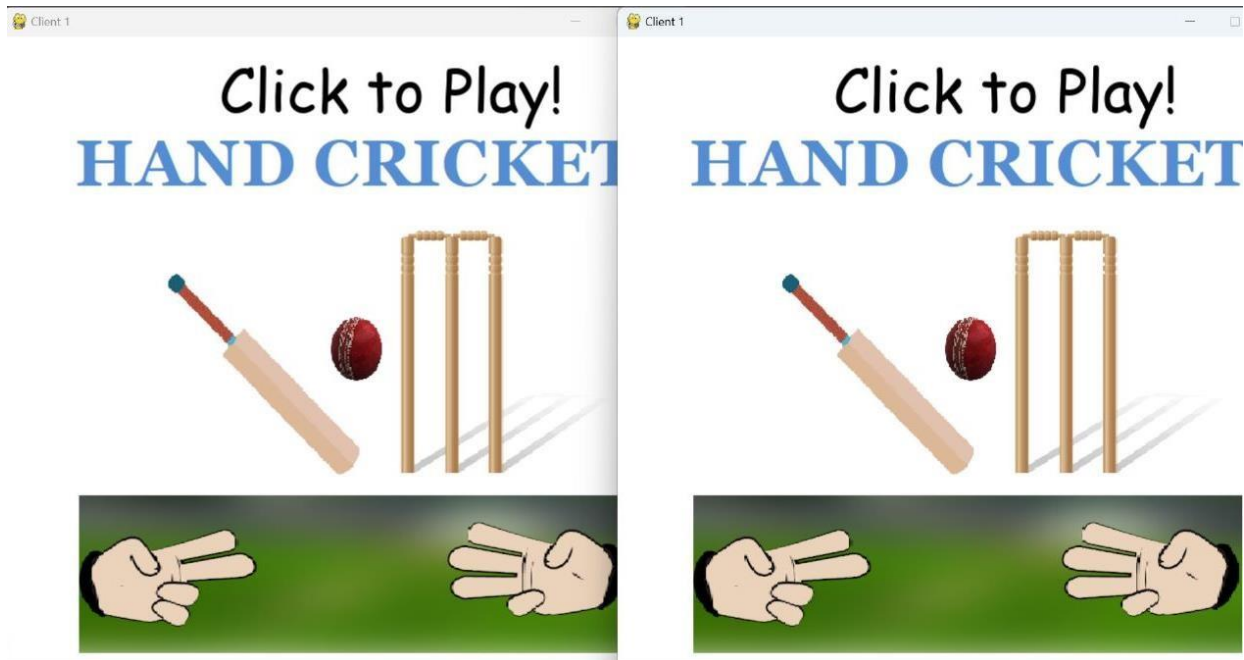
- This is a console-based application where you can visualize the hand-cricket game. players can fix their target runs and play against the computer as opponent. Wickets will be counted and runs will be displayed at each play.
- In this version of Hand Cricket, the first player is a real person and the second player is the computer.
- The player throws one of these moves in front of the webcam as per their choice which is converted into its respective number between 0 and 6, and simultaneously the computer selects a number between 0 and 6 randomly.
- If both(player and computer) throw the same number, the batsman is out!.
- In the first innings, the person always bats first and computer bowls first and unless the computer takes the wicket of the person, the score of the person keeps on adding as per their move.
- When the computer takes the wicket of the person, the computer starts batting and adding up its score and the person has to take the wicket of the computer before they beat the person's score.

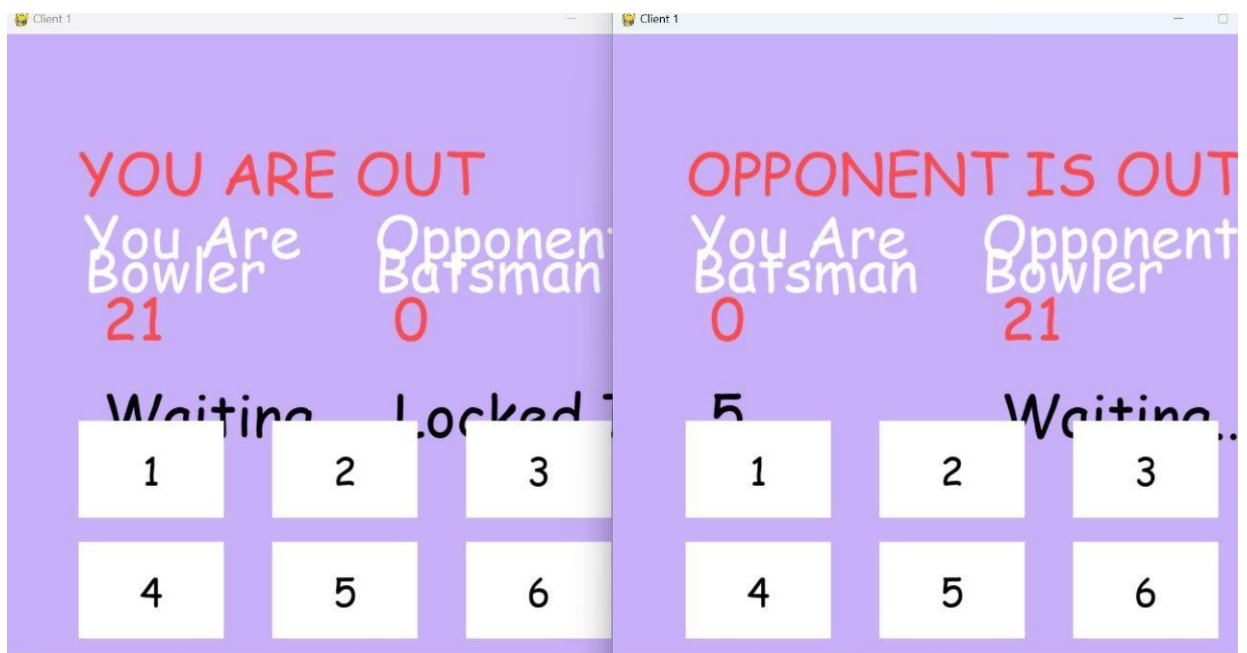
Home Page

Click to Play!
HAND CRICKET



Output Interface





Terminal/Result

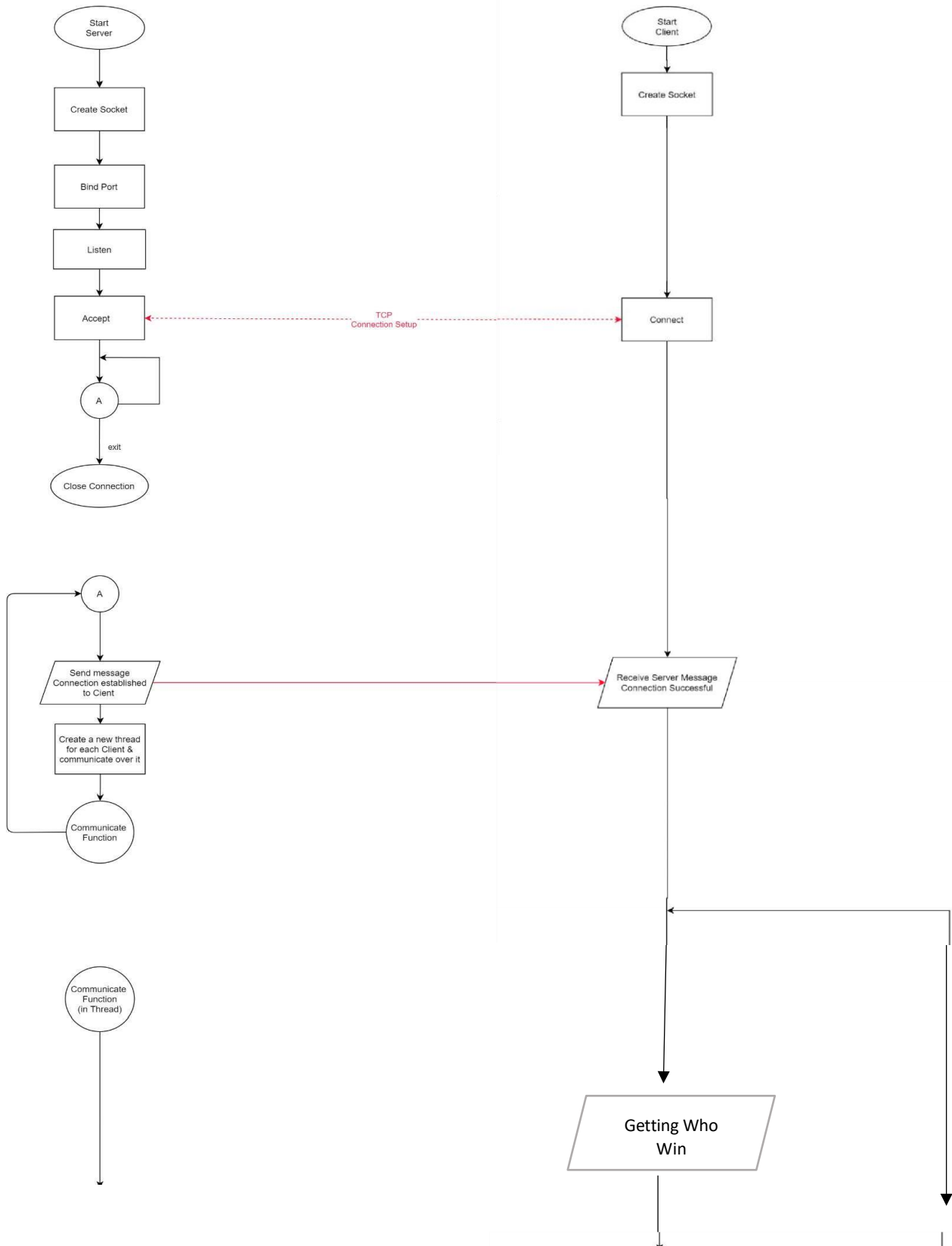
```
OUTPUT  TERMINAL  JUPYTER  DEBUG CONSOLE
> ▼ TERMINAL
p1= 3
p2= 4
score[batsman1] 15
completed2
no pblem
game.done_bat[0] = 0 and game.done_bat[0] = 0
no pblem
game.done_bat[0] = 0 and game.done_bat[0] = 0
1nd player as batsman
game.done_bat[0] = 0 and game.done_bat[0] = 0
p1= 2
p2= 2
done_bat= 0
completed2
no pblem
game.done_bat[0] = 1 and game.done_bat[0] = 0
```

```
> ▼ TERMINAL
Hello from the pygame community. https://www.pygame.org/contribute.html
You are player 0
2
game.bothWent() = True
5
game.bothWent() = True
5
game.bothWent() = True
3
game.bothWent() = True
2
game.bothWent() = True
█
```

```
▼ TERMINAL
pygame 2.1.2 (SDL 2.0.18, Python 3.10.1)
Hello from the pygame community. https://www.pygame.org/contribute.html
You are player 1
1
game.bothWent() = True
2
game.bothWent() = True
6
game.bothWent() = True

game.bothWent() = True
2
game.bothWent() = True
2
█
```

Flow Chart



Conclusion

We have Successfully Executed the Socket programming Project “Hand Cricket” by establishing the connection between the client and the server which implies the use of TCP protocol.

To Support the Above statement we got the desired output which is posted in the above section.