Rock, Paper, Scissors

Playing an interactive game using Windows Command Prompt

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Tools Used

- One or two computers
    - At least [Python 3.5](#) installed
- Command Prompt
- ServerUDP.py
- ClientUDP.py

Purpose

The purpose of this project is to simulate a basic game of rock, paper, scissors between two computers that act as a server and a client.
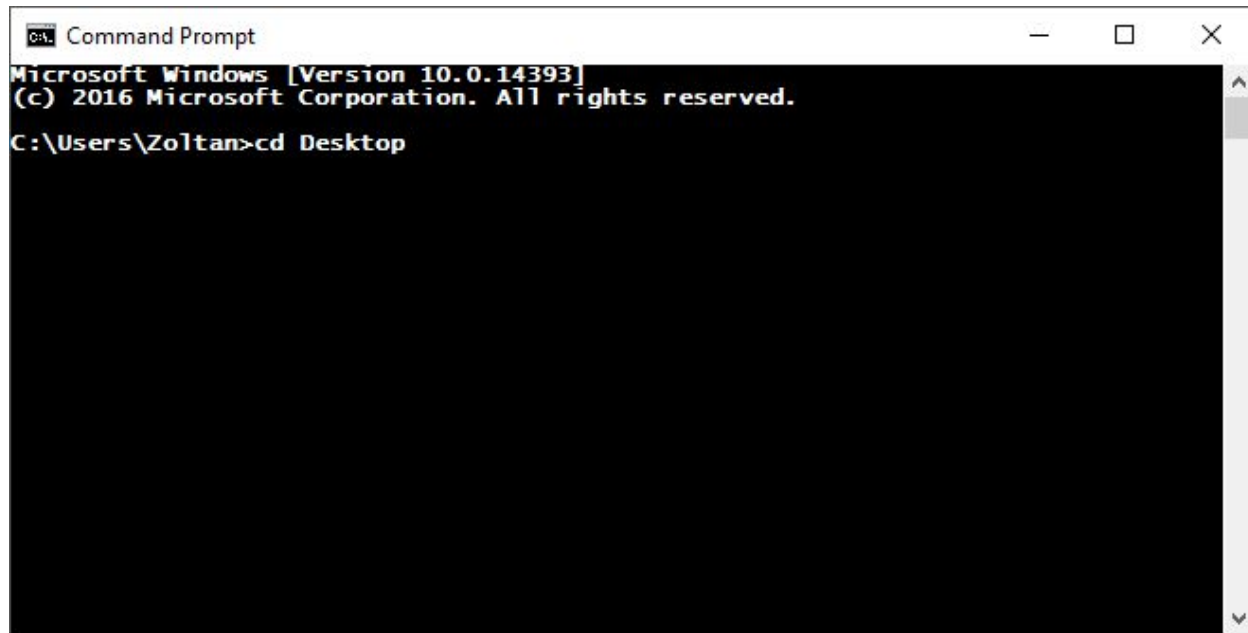
Setting Up

It is possible to run the simulation on one computer, but it is more practical to observe the behavior between two computers.
- One Computer must have the ServerUDP.py file in their computer. For example, in can be located on the Desktop
- The other computer must have the ClientUDP.py file. That too can also be located on the Desktop
- At least [Python 3.5](#) needs to be installed on both computers. Visit the Downloads page for Python and select a version (3.5 or higher). Download the file and follow instructions.
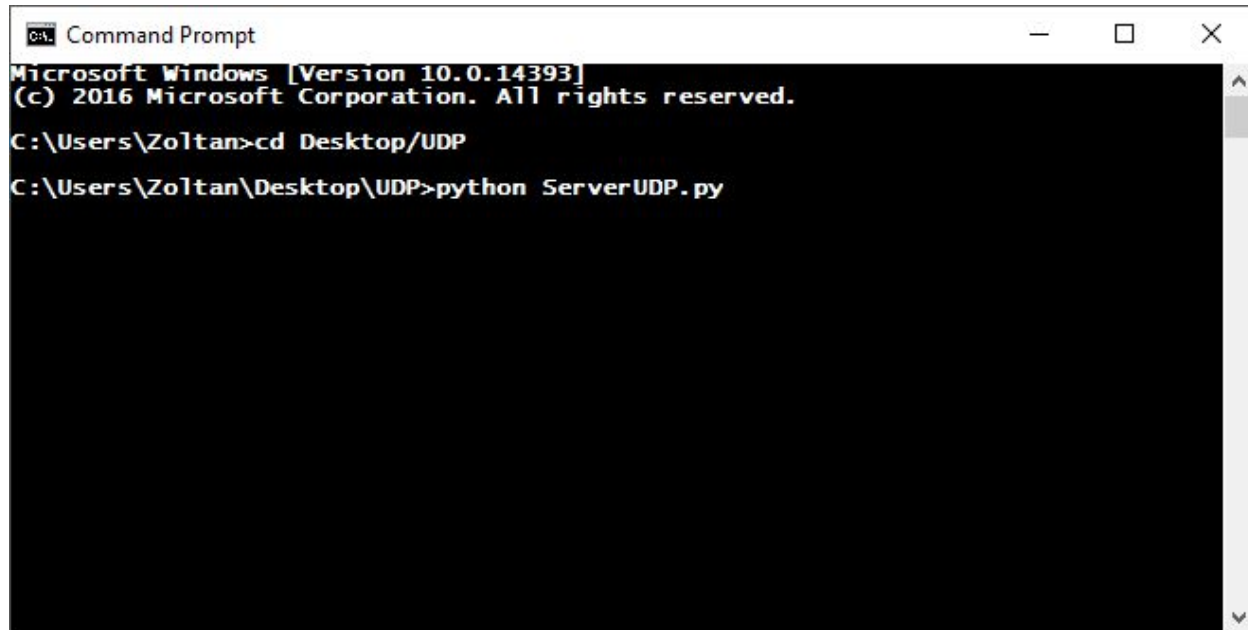
Running the files

1. Open command prompt
2. Use the command 'cd' to set the location to where you have the python files installed.
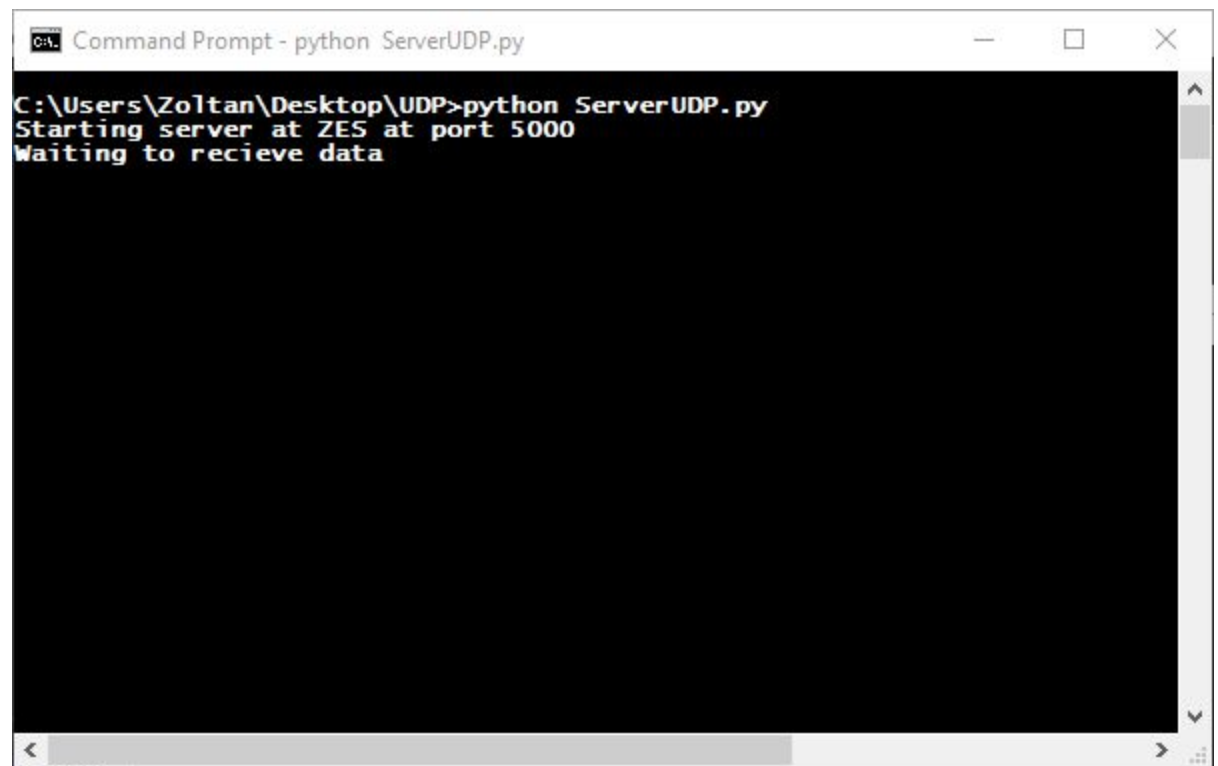   a. If on Desktop, use the command 'cd Desktop'

3. Run the appropriate file by entering 'python' followed by the file name:
   a. "python ServerUDP.py" or "python ClientUDP.py"

4. If successful, the files are now running.

a. Server


```
C:\Users\Zoltan\Desktop\UDP>python ServerUDP.py
Starting server at ZES at port 5000
Waiting to recieve data
```

b. Client


```
C:\Users\Zoltan\Desktop\UDP>python ClientUDP.py
Enter IP address:
```

5. The server does not take any input; it runs automatically. A user can now play against the server in rock, paper, scissors by following the instructions provided by the application.

a. The user must know the IP address and port of the server. The server once started will provide the IP and port number it is running on. The server side can also access its IP by entering 'ipconfig' in a Command Prompt.

```
Command Prompt - python  ClientUDP.py                    —    □    ✕

C:\Users\Zoltan\Desktop\UDP>python ClientUDP.py
Enter IP address: 192.168.1.2
Enter port number: 5000
Enter 'play' or 'quit'play
Sending message
Waiting to recieve...
Recieved data
Choose rock, paper, or scissors -->
```

```
Command Prompt                                          —    □    ✕

C:\Users\Zoltan\Desktop\UDP>python ClientUDP.py
Enter IP address: 192.168.1.2
Enter port number: 5000
Enter 'play' or 'quit'play
Sending message
Waiting to recieve...
Recieved data
Choose rock, paper, or scissors --> rock
Player chose: rock
Server played: rock
It's a draw!
Enter 'play' or 'quit'play
Sending message
Waiting to recieve...
Recieved data
Choose rock, paper, or scissors --> paper
Player chose: paper
Server played: rock
You win!
Enter 'play' or 'quit'quit
Wins: 1 | Losses: 0 | Draws: 1
Closing socket...

C:\Users\Zoltan\Desktop\UDP>
```
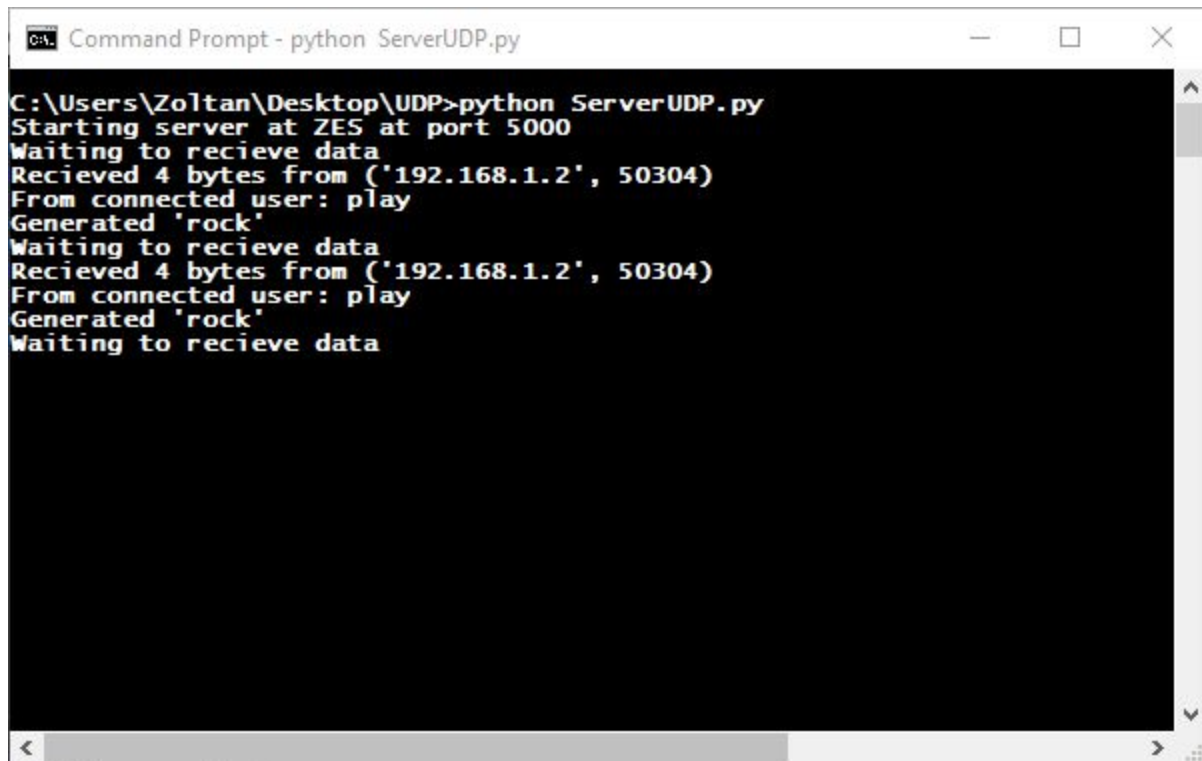
SERVER


```
C:\Users\Zoltan\Desktop\UDP>python ServerUDP.py
Starting server at ZES at port 5000
Waiting to recieve data
Recieved 4 bytes from ('192.168.1.2', 50304)
From connected user: play
Generated 'rock'
Waiting to recieve data
Recieved 4 bytes from ('192.168.1.2', 50304)
From connected user: play
Generated 'rock'
Waiting to recieve data
```