

Members

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Project Report: Remote Desktop Control

ABSTRACT

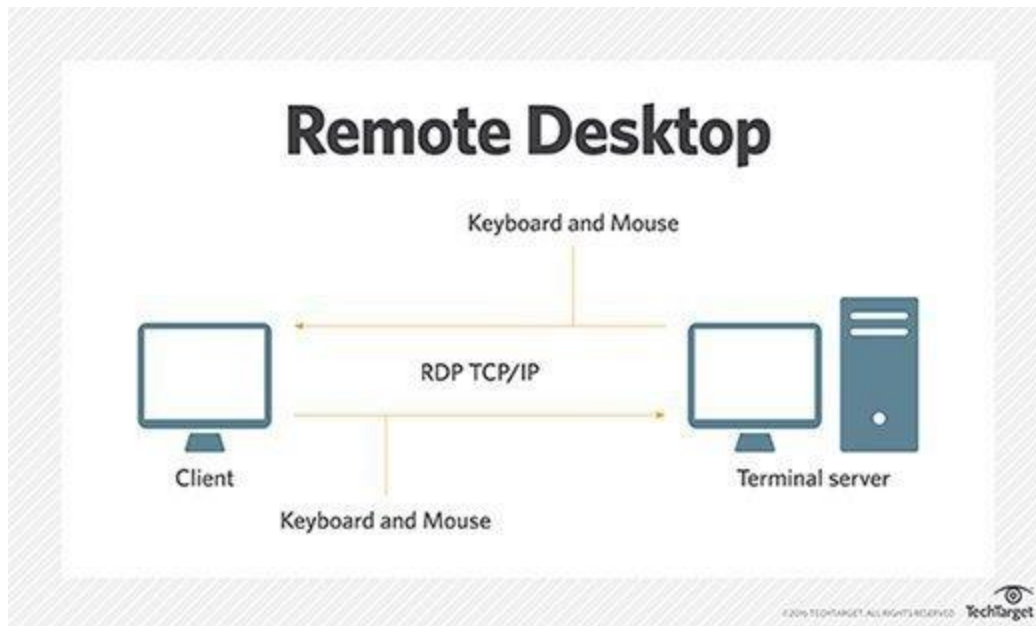
In today's era, every organization whether it's a company or a college wants to have look on activities performed by employees/students on their respective computers. To solve this problem, Remote Desktop Controlling comes into picture, allowing to remotely control every action being taken by anyone on a desktop. Through this, an administrator or a faculty can control their client's desktop to help them in resolving any issue or problem by having access of their hardware's control on Keyboard, Mouse etc.

AIM & OBJECTIVE

The project aim is to develop such an application which allows a server desktop to control another client desktop via LAN or WLAN connection. The application can be used in various scenarios, for example, collaborating or assisting other person over the network by controlling their screen. The specified use case can be found in group projects, remote assistance for users by company's technical staff, etc.

PROPOSED SYSTEM

In our project, we have implemented socket programming in Python using Twisted , which is an event-driven networking engine written in python to implement custom network applications In our project, one PC will behave as a server and the other will behave as a client. The server PC will be the controllee whereas the client PC will be the controller. The connection can be setup via LAN or WAN.



MODULE IMPLEMENTATIONS

Client Module:-

The module is used by client to connect with the server. It asks for Server's IP and Port Number on which application is running and then acknowledges the TCP connection. The client module receives a message from the Server into its buffer, decodes it and depending on the value at the beginning of the decoded message, and displays the graphic data of the server onto its screen.

Server Module:-

This module is implemented is used by the server to connect to the client. It provides server's IP and Port Number over which application is running and then initiates a TCP connection with the client. The server module receives the input data from the client in the form of mouse clicks and keyboard strokes, 'ascii' encodes the data using characters and stores it in its buffer.

RESULTS:

This program results in a secure connection with TCP protocol between two computers. to run the program first you have to choose to be the server or client. The server is the controller and the client is the controlee. Server must enter the port number to connect and the client must enter both the port number and ip of the server. The controller controls the controlee by receiving screenshots of the

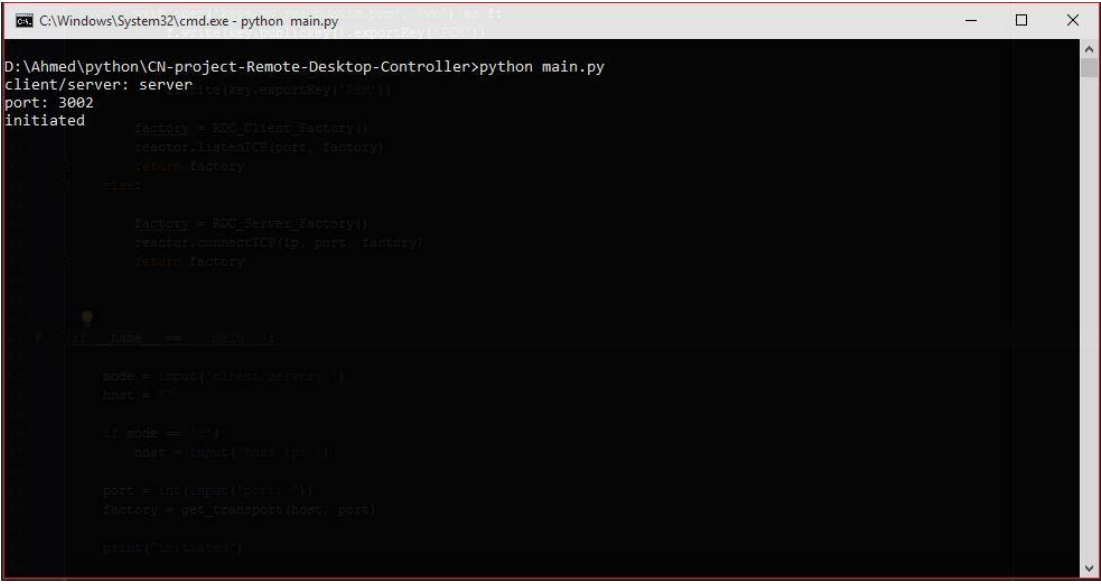
controlee computer constantly, location of mouse when clicked, ascii of every button pressed on keyboard and actions of mouse clicks.

TOOLS:

- Python
- Tkinter GUI
- Twisted(Event Driven Networking Framework) For Implementing Protocol in Python

VIEWS:-

Server (Controllee) will start a tcp connection and waits for the client (controller) to connect to the specified port. Client will connect to the server by specifying the ip address and port of the server. After the connection is established, the client controller will be able to see server's desktop screen and can easily control it.



```
C:\Windows\System32\cmd.exe - python main.py
D:\Ahmed\python\CN-project-Remote-Desktop-Controller>python main.py
client/server: server
port: 3002
initiated
    factory = RDC_Client_Factory()
    reactor.listenTCP(port, factory)
    return factory
except:

    factory = RDC_Server_Factory()
    reactor.connectTCP(ip, port, factory)
    return factory

if __name__ == '__main__':

    mode = input('client/server: ')
    host = ""

    if mode == 'c':
        host = input('host ip: ')

    port = int(input('port: '))
    factory = get_transport(host, port)

    print('initiated')
```

Fig. 1: Server Start Screen

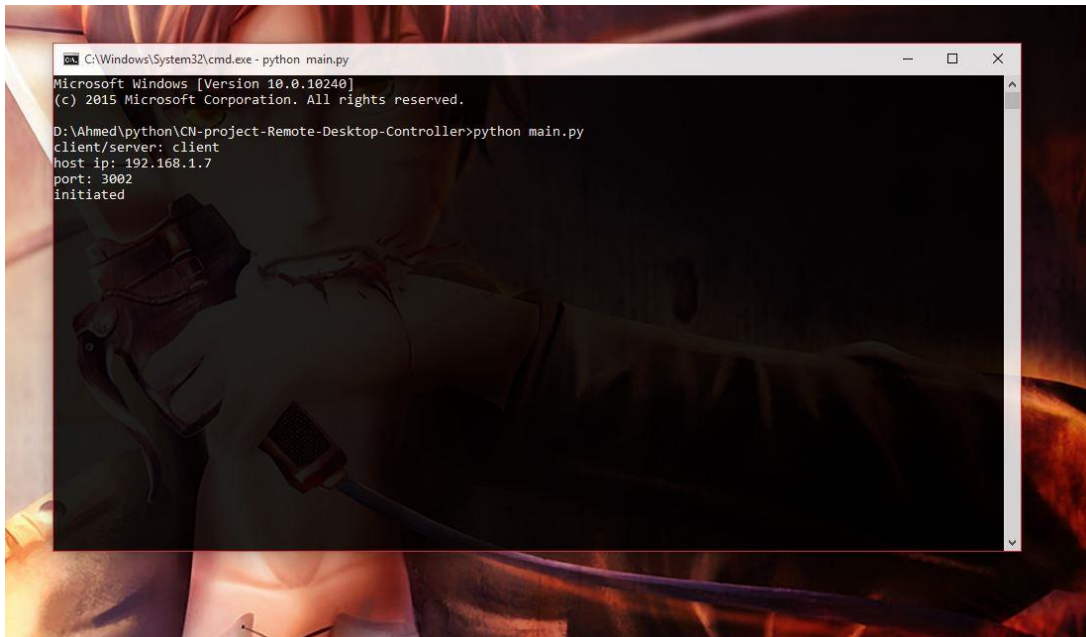


Fig. 1.1: Client Start Screen

Client controller can view the server's screen and can control anything with their mouse and keyboard.

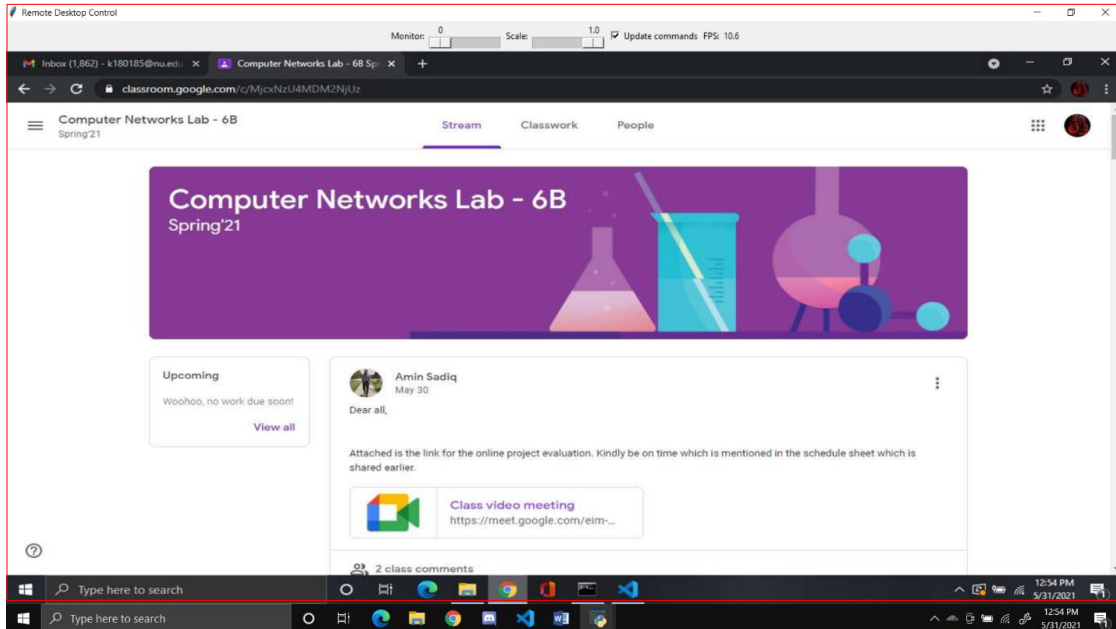


Fig. 2: Client viewing and Controlling Server's Screen

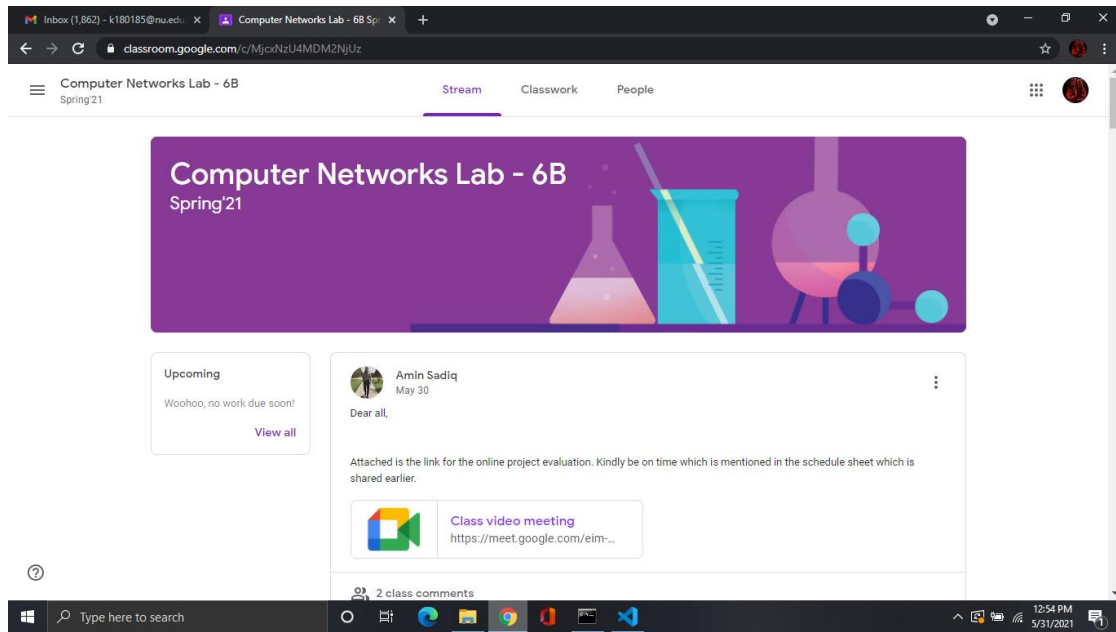


Fig. 2.1 : Server sharing its screen

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- [2] Wang ping, wany Zheng, “IEEE, Design and Implementation of Open Computer Lab Monitoring and Management system”.Computer and modernization,IEEE.11.pp.125-128,2007