PCSII Project Readme File
SpaceLink

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--------------------------------Installation Guide----------------------------------

Programming language – python3: Download Python
Additional Libraries to be installed: pygame, pyautogui, mss, pynput: Install modules in python3

-------------------------------How to Connect----------------------------------

The user who requires to share the access to their system with another other user needs to run the **server code** in **terminal/command prompt** of their desktop device.
The server's **IP address, port number** for this program, along with the **4-character long randomly generated password,** will be provided.
The user who requires to the get the access of another person's system needs to run the **client code** in **terminal/command prompt** of their desktop device.
This user needs to enter the **socket details** (IP address, Port no.) of the server program after which the connection between the client and server will be established.

--------------------------------Password Authentication------------------------------

The user (client) also needs to enter the **correct password** (generated at server's device) to gain access to the server's real-time screen sharing along with the mouse control.

In case of incorrect password entered by the client, the connection will be automatically **ended from the server side** and the server program will rerun with different port number and a newly randomly generated password.

---------------------Understanding Terminal Commands-------------------

Once the user (client) is verified, they can control the server's mouse operations by typing the following commands in his terminal/command prompt -

- o "w" or "w *int*": This command will move the server's mouse up by *int* pixels. If no integer value is specified, then mouse will move up by 10 pixels.
- o "s" or "s *int*": This command will move the server's mouse down by *int* pixels. If no integer value is specified, then mouse will move down by 10 pixels.
- o "a" or "a *int*": This command will move the server's mouse left by *int* pixels. If no integer value is specified, then mouse will move left by 10 pixels.
- o "d" or "d *int*": This command will move the server's mouse right by *int* pixels. If no integer value is specified, then mouse will move right by 10 pixels.
- o "c": This command will perform a single left button click operation at the current position of the mouse/cursor.

The user (client) can enter the "ctrl" command to **give or release server's direct mouse control** to

client's mouse. When this feature is enabled, the server's mouse will replicate the actions performed by the client's mouse including mouse movements and mouse clicks, and the client is no longer required to control the mouse from terminal.

The user (client) can enter the "stop" command to disconnect the server and client socket connection. This will terminate the client code and server will be disconnected. However, the **previous or new user can reconnect to the server** using the IP address, port number for the server's program and valid password.