CN Project Report

File Transfer Application

Instructor Name

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Introduction:

Our application uses socket programming to transfer files between multiple clients and servers. Servers act as storage drives for an educational institute where each department has its own server to hold data. Students act as clients for the department server and may download or upload files as needed.

Working:

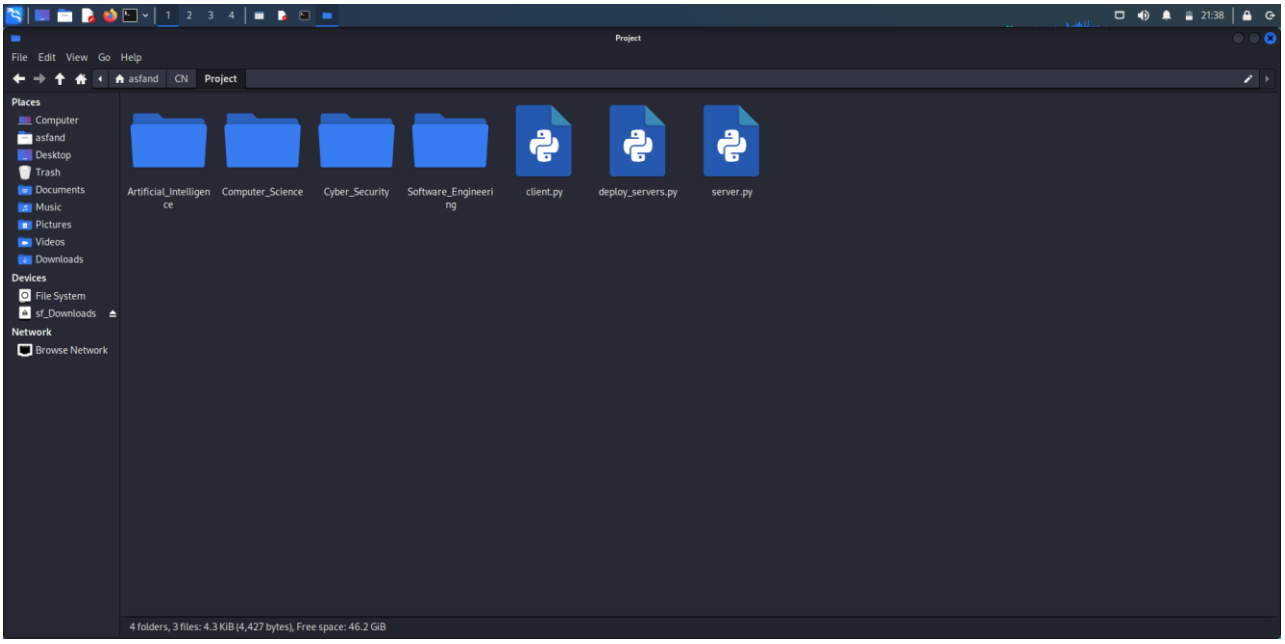
Following 3 files are used in our system:

- Server.py
- Deploy_servers.py
- Client.py

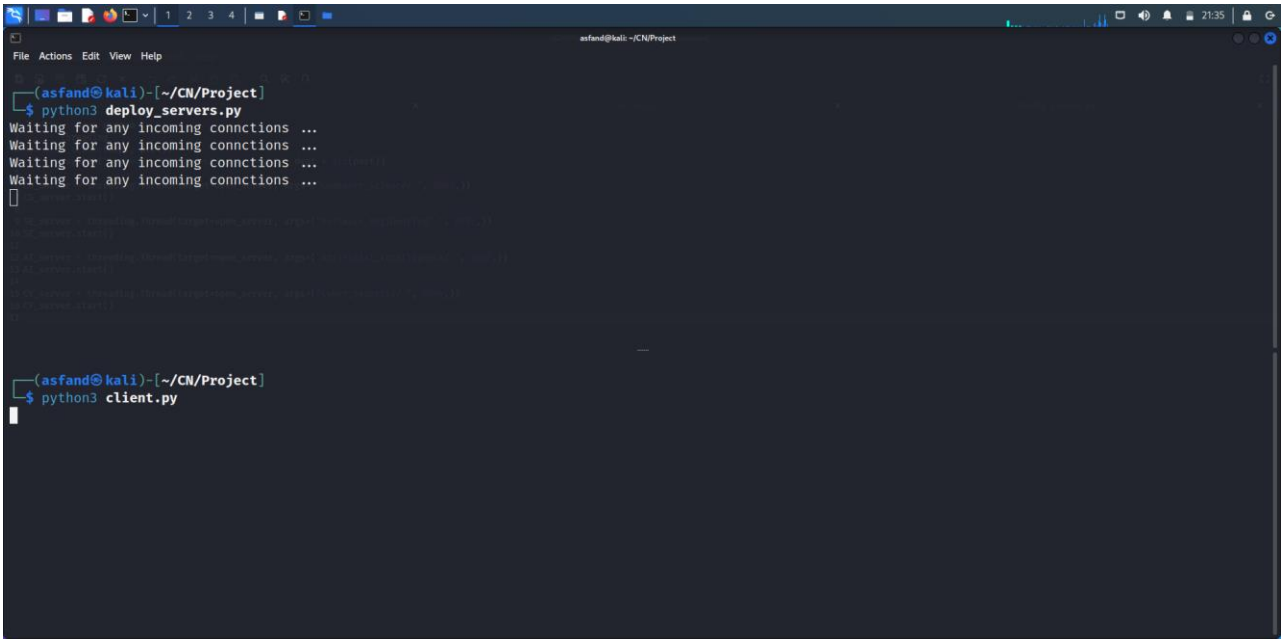
Server.py has the code to start a server and Deploy_servers.py uses Server.py to deploy multiple servers with their own directory paths and ports. Client.py handles the GUI for client's interface and allow them to upload/download files to/from the servers.

First, we configure the Deploy_servers.py file and assign each server port number and address of its directory. Similarly, we assign their respective port numbers to each server on their buttons in the GUI.

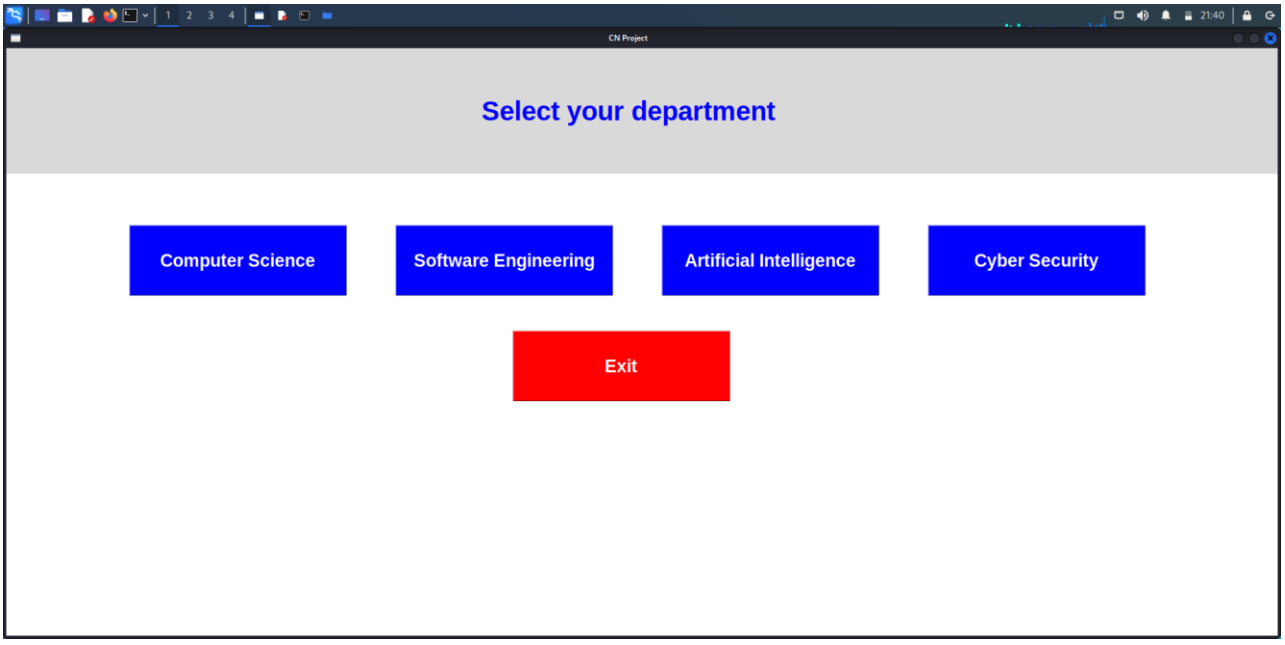
This is our current directory structure before deployment.



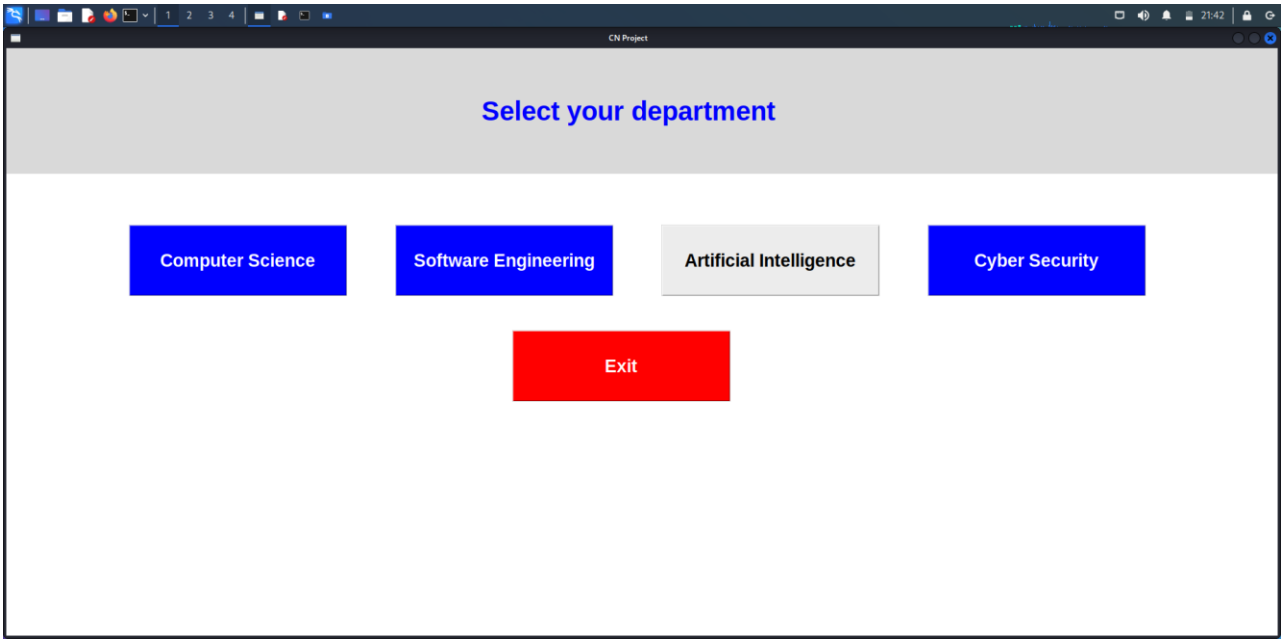
Now, we start the system by running scripts Deploy_servers.py and Client.py.



This is the GUI that clients will interact with.

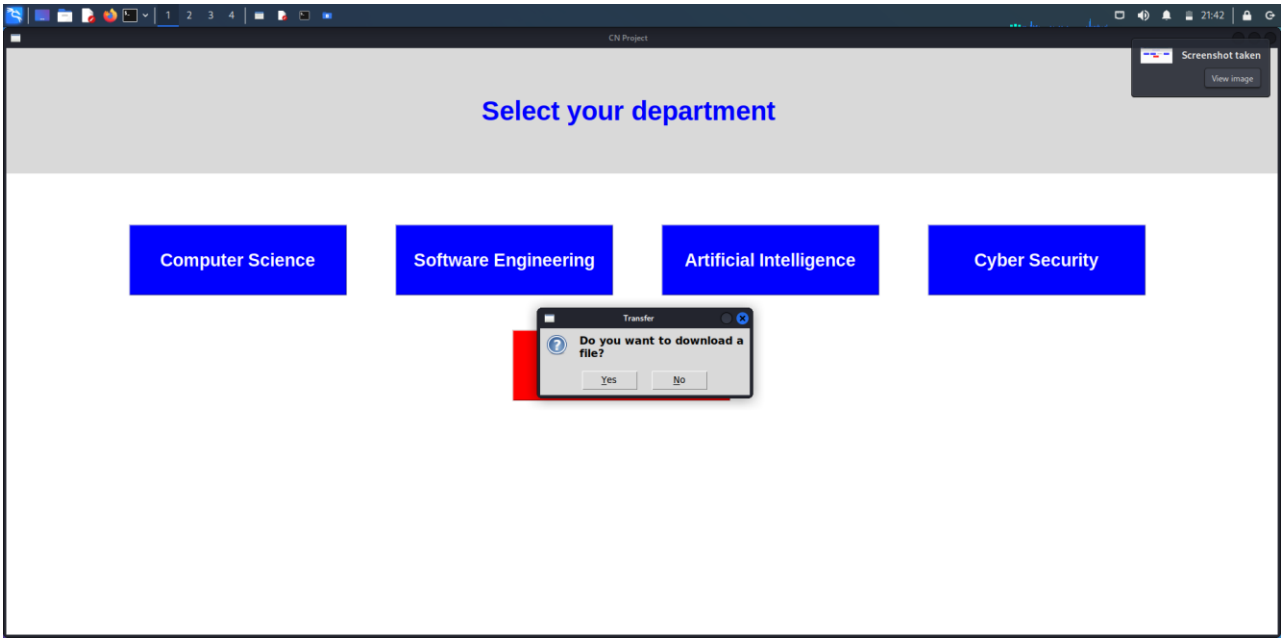


First, we select Artificial Intelligence department and connect to its server.

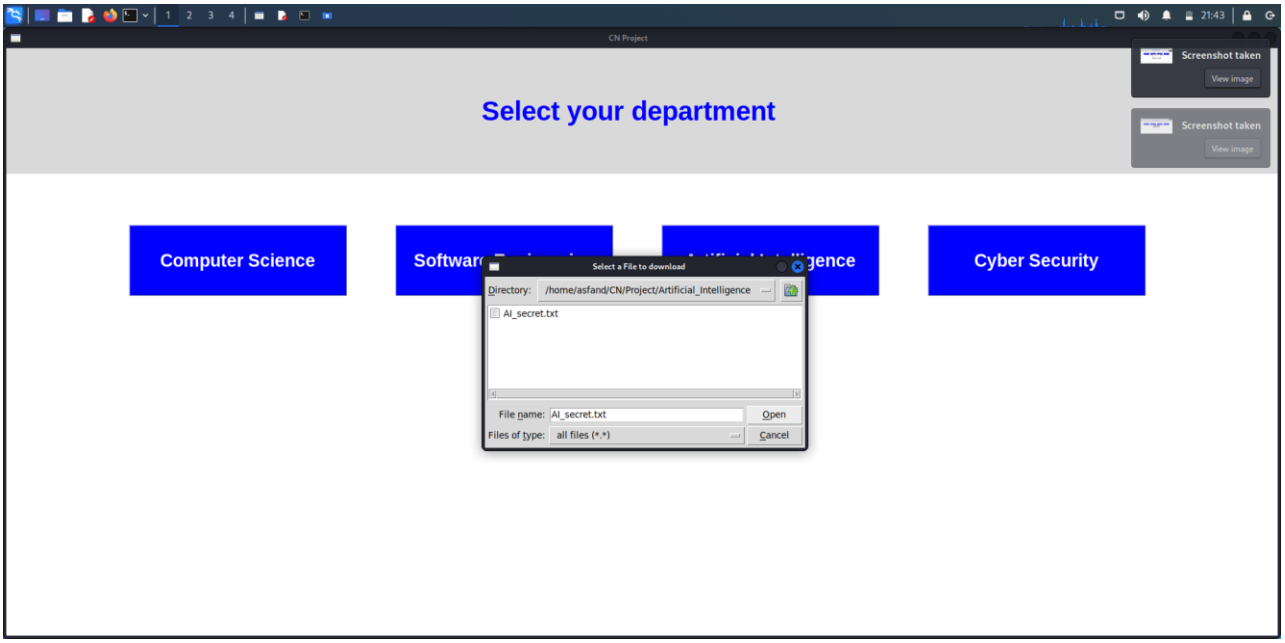


Upon connecting, a message box appears to prompt the suer to select whether they want to upload a file or download it. Due to issues in the GUI functions, we were not able to configure it to our needs. The message box asks if the suer wants to upload a file. If user selects “Yes”, the system moves towards download options else it moves to upload option.

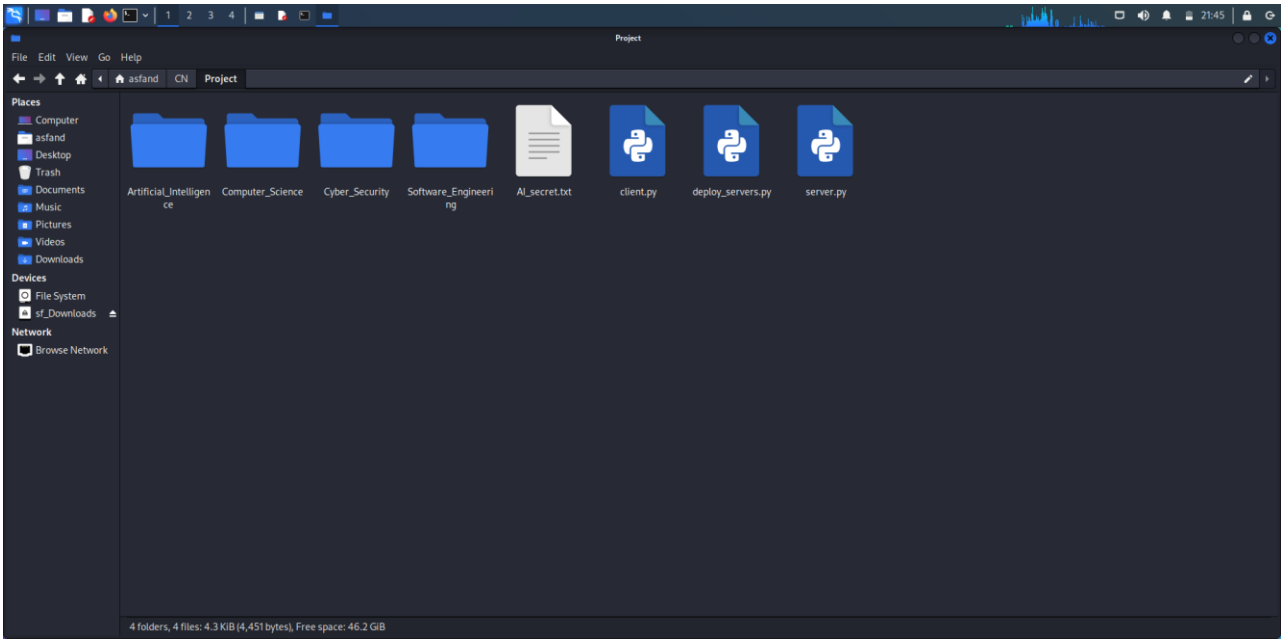
Here we will first download a file from Artificial Intelligence server that we connected to.



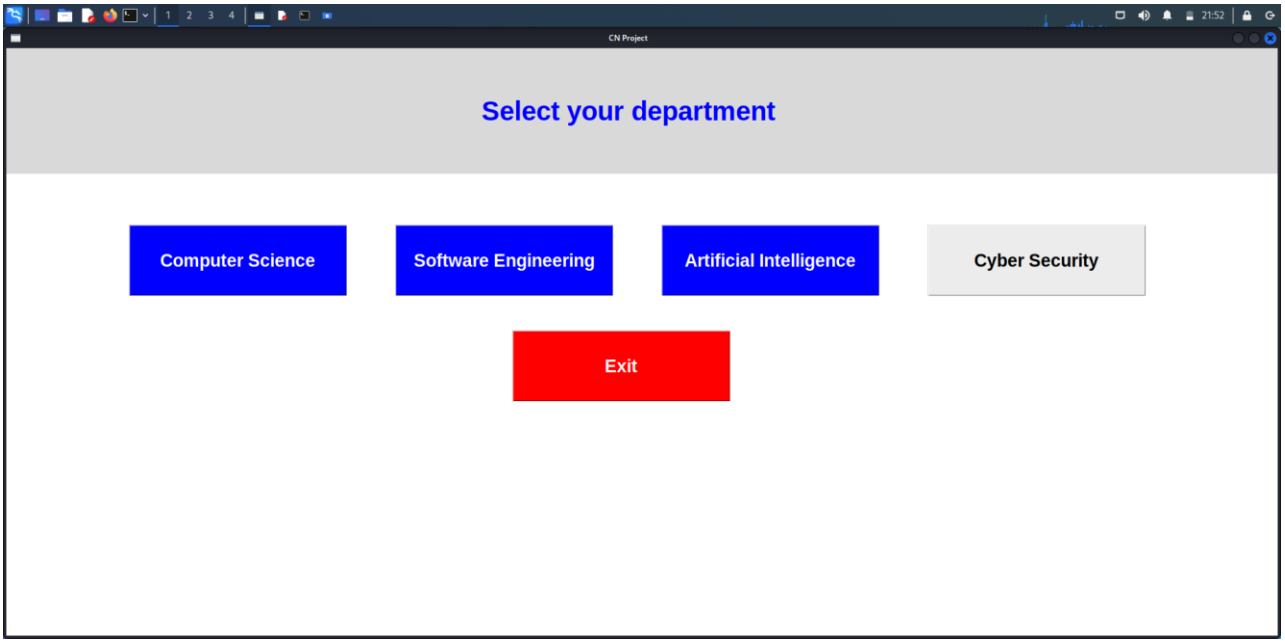
Upon clicking yes, download function displays files available in Artificial Intelligence server.



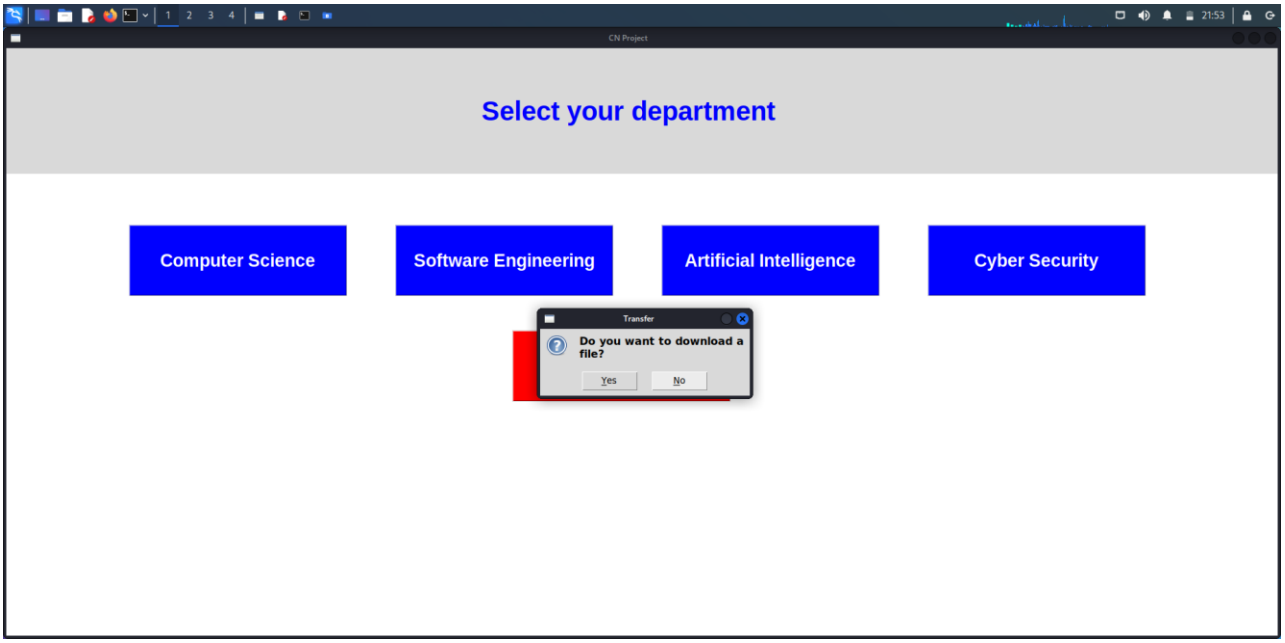
File selected will be downloaded in the same directory from where client runs the application.



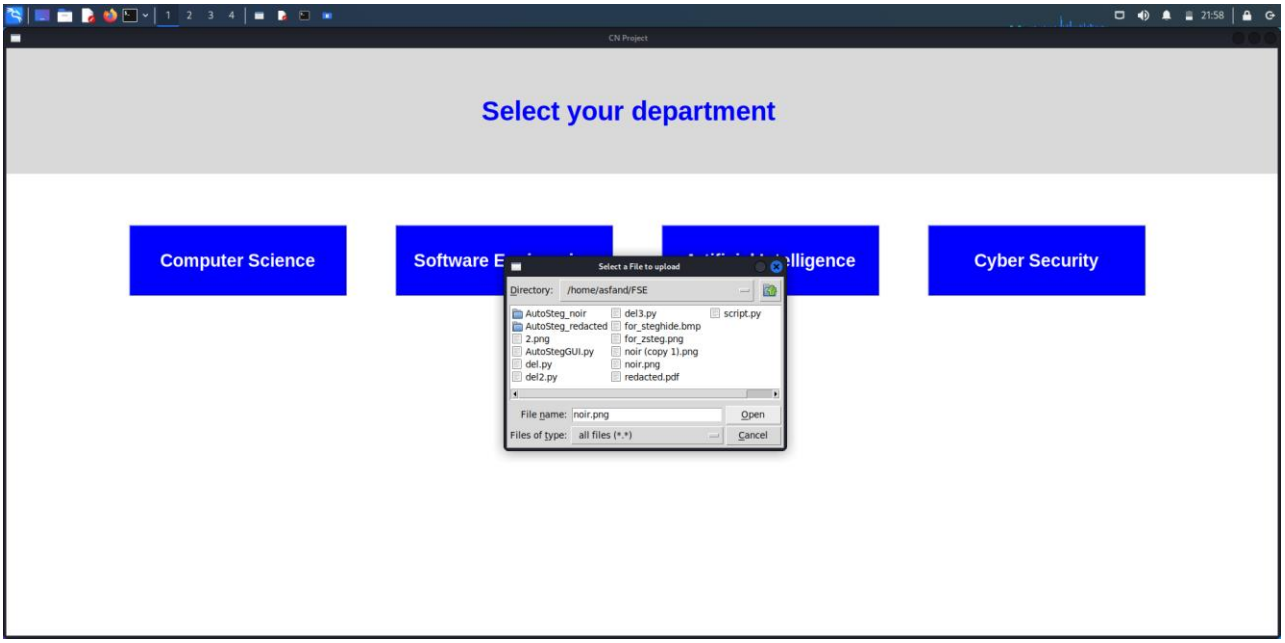
Now we upload a file to the Cyber Security directory.



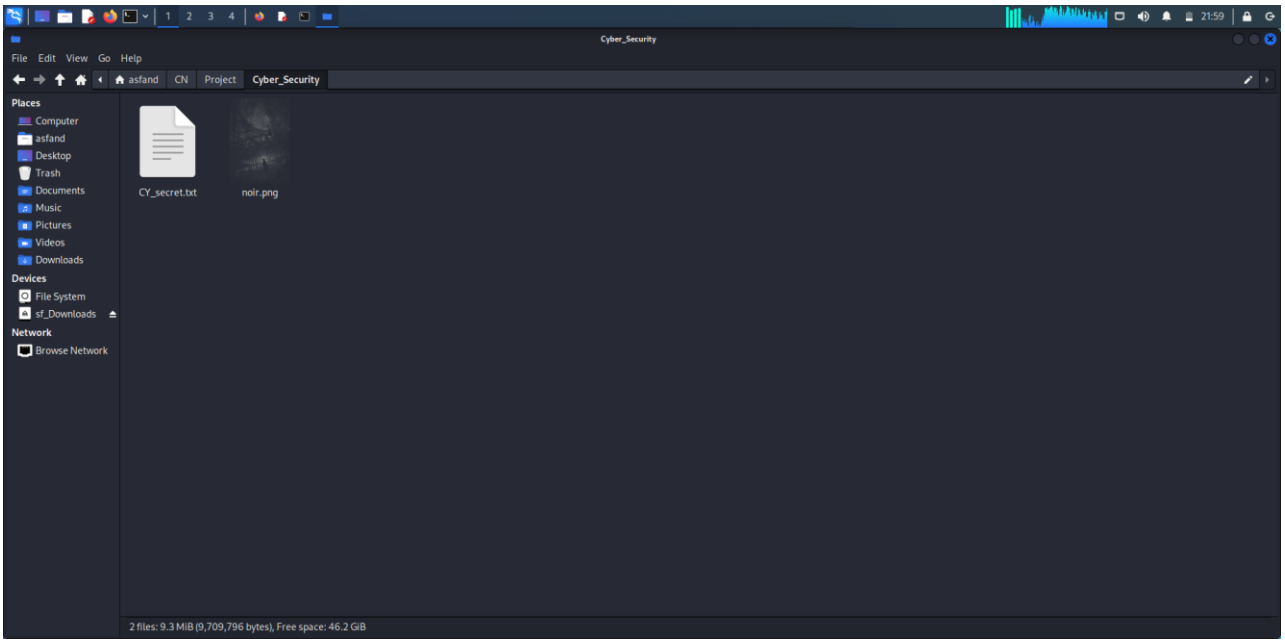
We chose the no option in prompt.



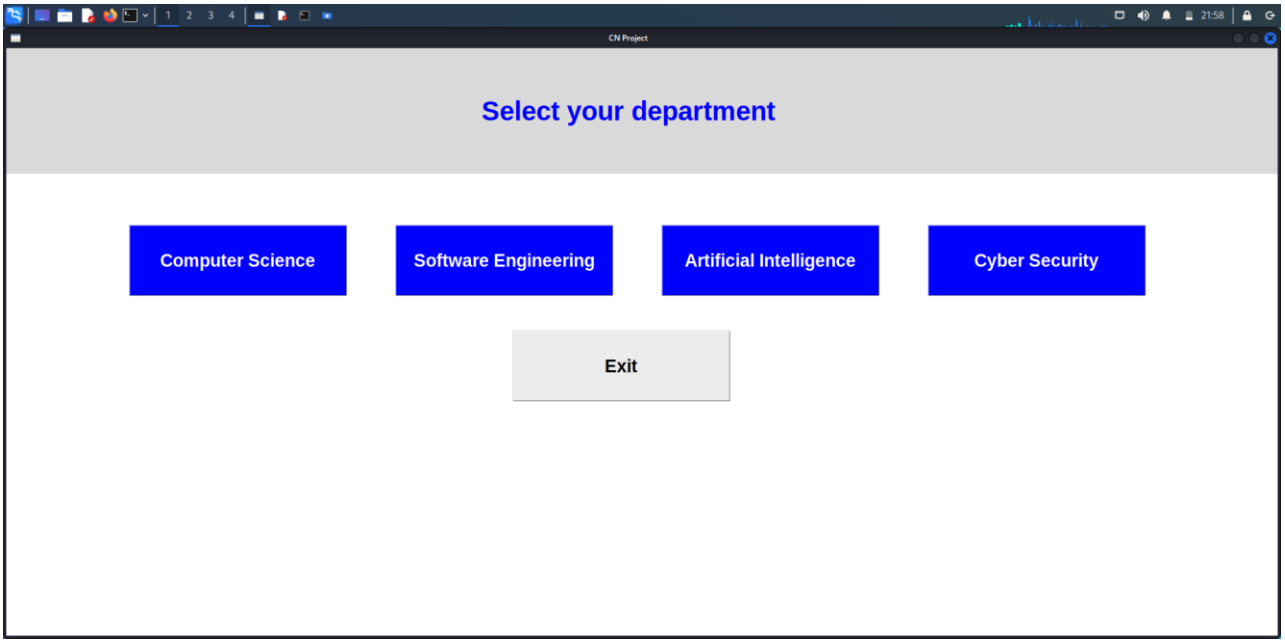
Upon clicking no, home directory of client opens and prompts the user to choose the file to upload. We choose noir.png to upload.



File uploaded is available in the Cyber Security server.



Now we exit the program.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