**OOPR for Server Admin Assignment Solutions**

**Conclusion**

GIT URL = <https://github.com/L00163279/OOPR_CA2.git>

The first and second assignment was to install Apache2 on a virtual machine and scrape the data from the Apache page. Apache2 was successfully installed in the virtual machine. Apache HTTP Server is a free and open-source server that handles the delivery of web content through the Internet. After its development, Apache quickly gained popularity as the most popular HTTP client on the web. In order to scrape data from the Apache page, BeautifulSoup is used in this lab practical. The headers and titles were scraped from the Apache page and then a particular word from the Apache page was counted.

The Beautiful Soup package is a Python package that can parse HTML and XML documents. This tool creates an automatic and hierarchical parse tree from the page's code that can be used to extract data. It is very fast and extremely lenient.

According to the third question, the connection to the virtual machine was successful using the SSH protocol. There was no problem to establish a connection with Ubuntu using SSH. Secure Shell (also known as SSH) is a protocol used for securing remote access between computers. Strong encryption protects the security and integrity of communications while providing various options for strong authentication.

A python script has been written to set up which ports are open in your system. It displays information about the ports 22 and 80 on the screen. The port 22 is used for remote administration of the Virtual Machine. The port number 80 is the one associated with a commonly used internet communication protocol. It was found that the ports were open, and the script was successfully run.

In the fifth question of the assignment, you are required to install curl on a virtual machine and to create a directory in that machine using a Python script. The installation of curl and the creation of a directory in the virtual machine have both been successful. Paramiko package is used in script to makes connection with a remote device through SSH. Got the time of last access of the directory by using command. By using the command, we were able to get the time when the directory was last accessed.

The sixth question was to write a terraform script to create a sample infrastructure in the public cloud on AWS. Terraform is used to create an instance in AWS. In short, Terraform is a tool for building, changing, and versioning the infrastructure in order to make the process of deployment, change, and maintenance as safe and efficient as possible. Terraform was installed and an instance was created in AWS successfully after the installation. Terraform is destroyed after the creation of instances in AWS. When Terraform destroy has been executed, the connection to the AWS will be terminated.

I would like to conclude by saying that the current assignment mainly focuses on connecting and establishing the connection between the VM and the local machine using different methods in order to accomplish the task.