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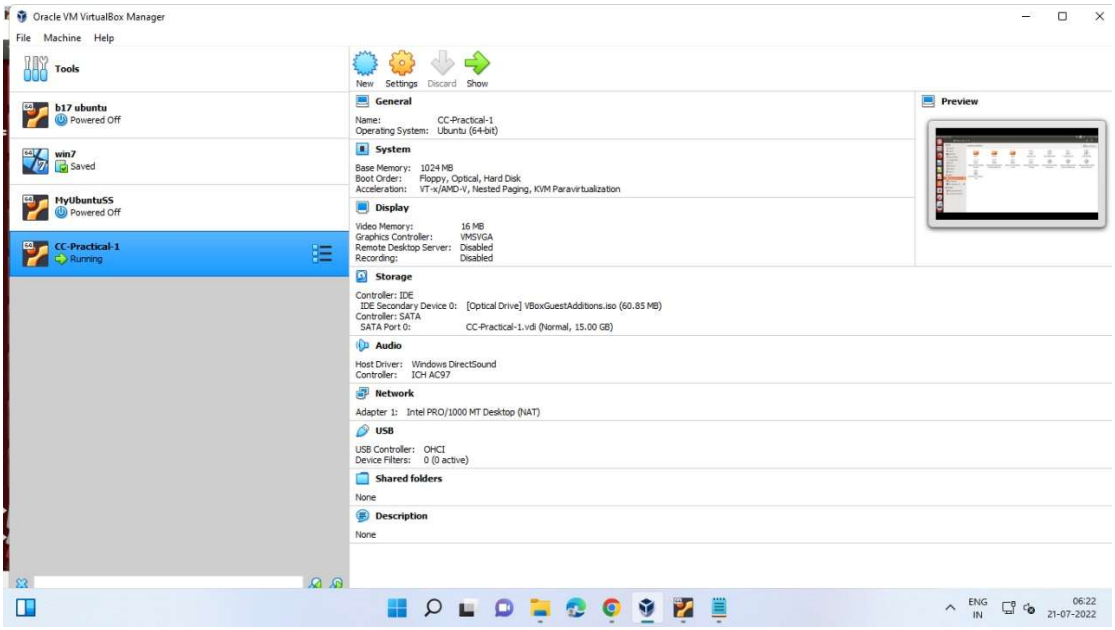
Section: A
Semester: VII
Batch: A1

Aim: Implementing applications using Google App Engine (PaaS).

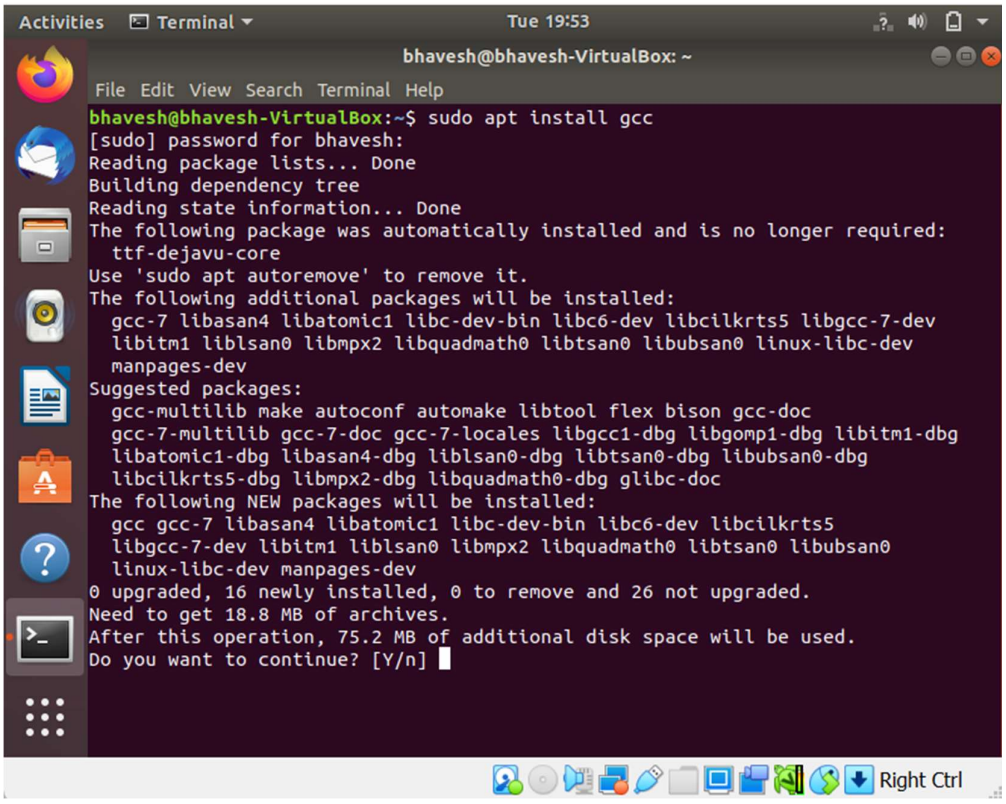
Output:

1. **Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of windows.**

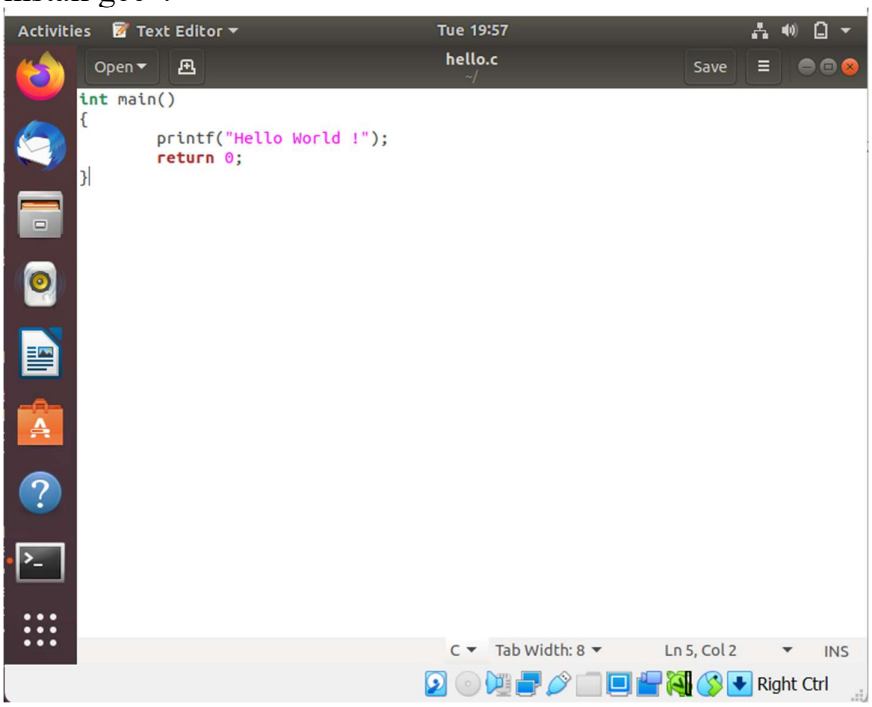


Installation of Oracle VM Virtual Box and creation of Virtual Machine named "CC Practical-1" which contains Linux OS and win 7 which contains windows 7 OS.

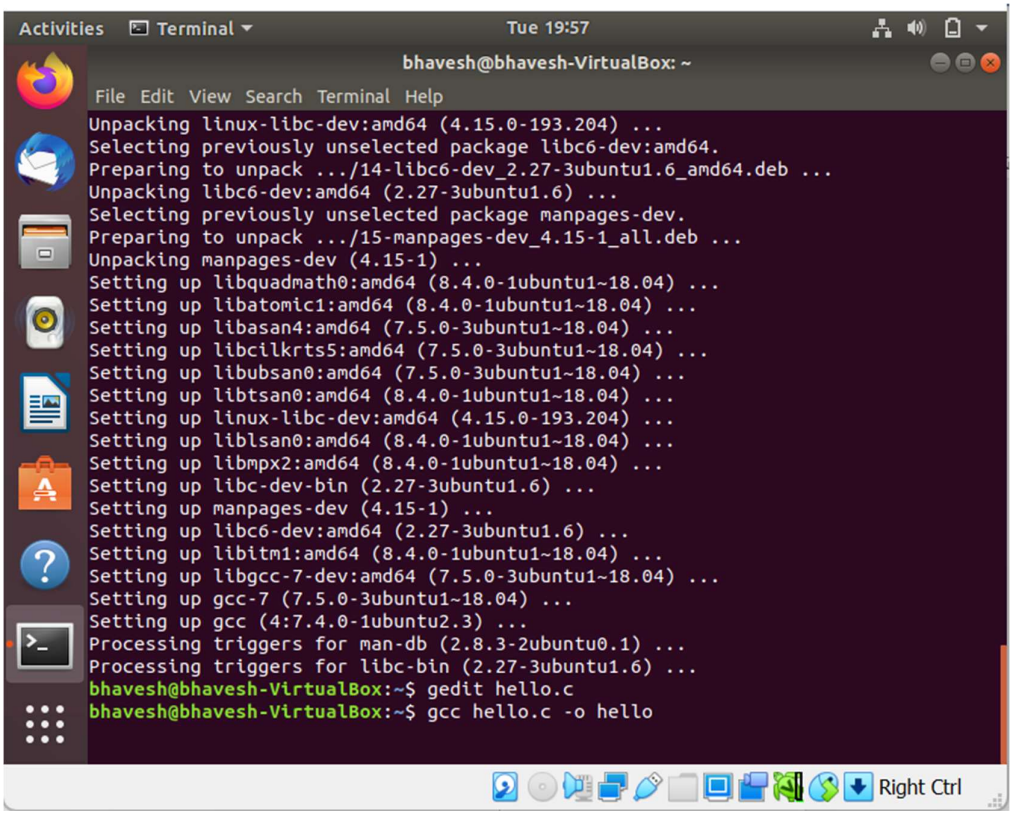
2. **Install a C compiler in the virtual machine created using virtual box and execute Simple Programs**



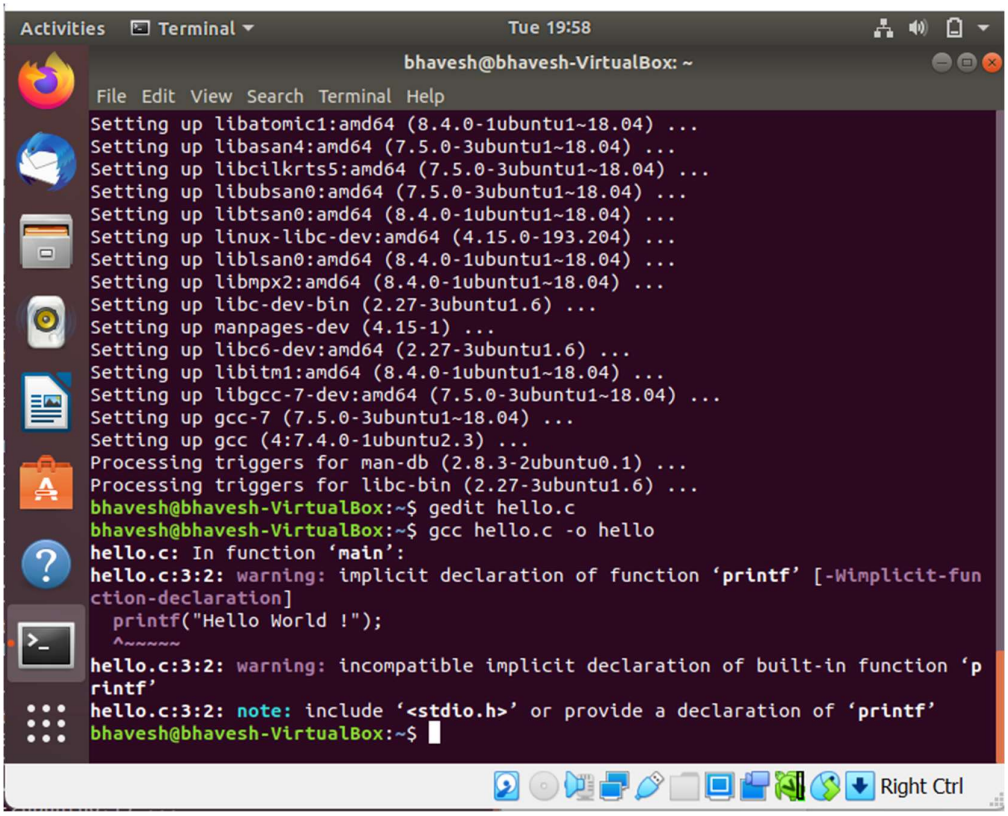
Installing gcc compiler to execute the C program using the command “sudo apt install gcc”.



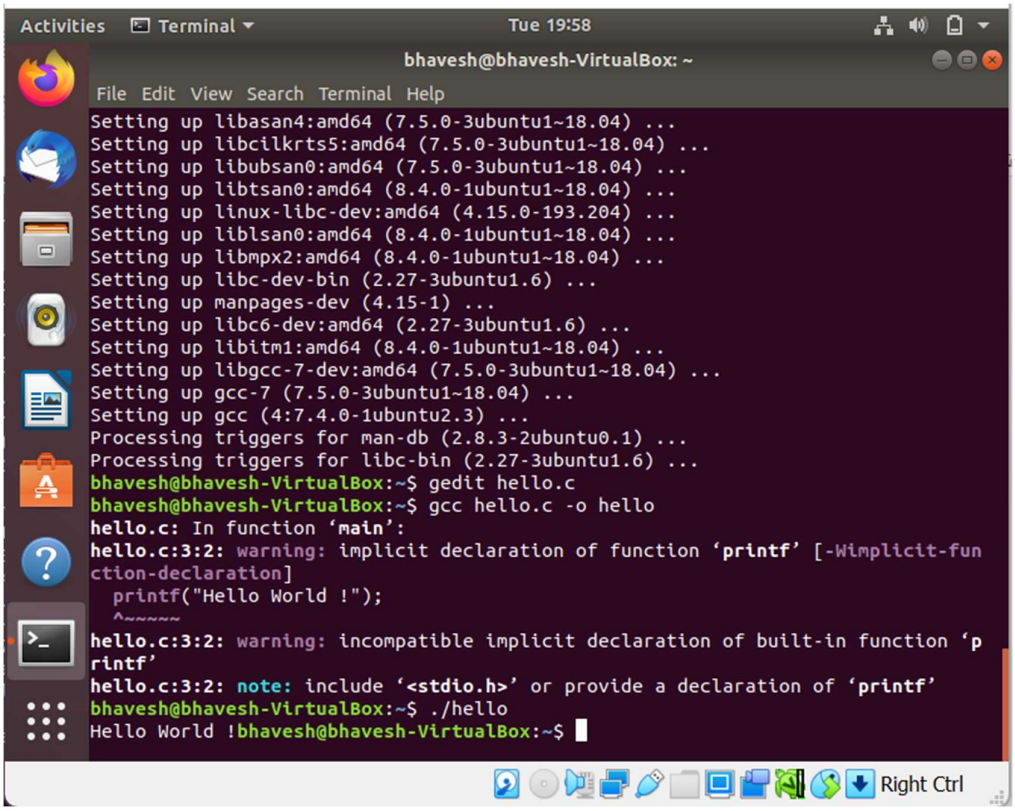
Sample Hello World program written in C language and the file is saved with .c extension.



Using gcc compiler we execute the hello.c program. -o saves the output file with filename hello



Executing the gcc command to compile the C program.

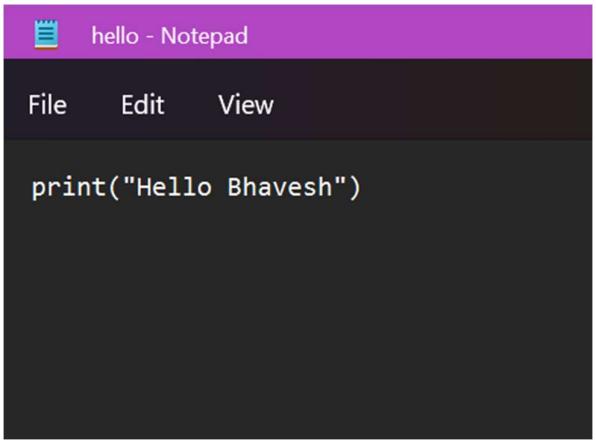


The output is saved in hello file. When we execute the ./hello command, the program gets executed and gives the output.

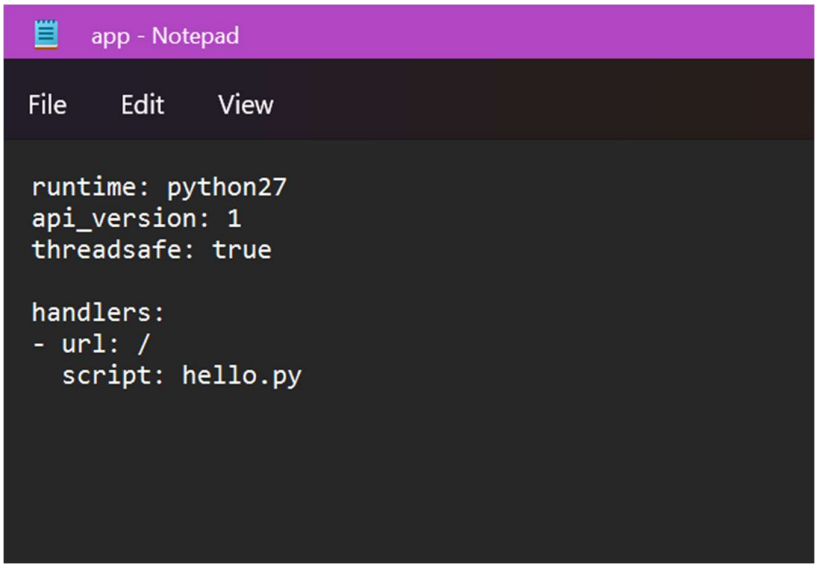
3. **Install Google App Engine. Create hello world app and other simple web applications using python/java.**

4. **Use GAE launcher to launch the web applications.**

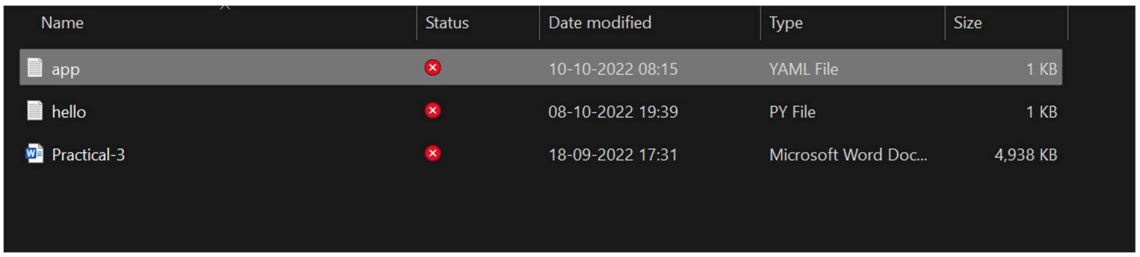
5. **Use GAE launcher to launch the web applications using database services.**



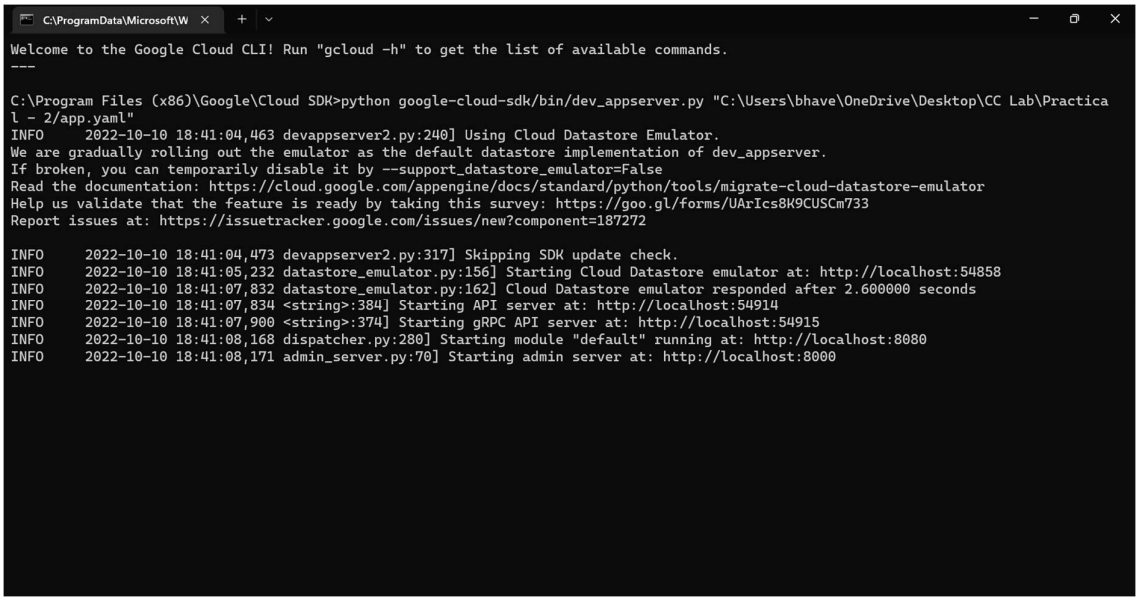
Sample program written in python.



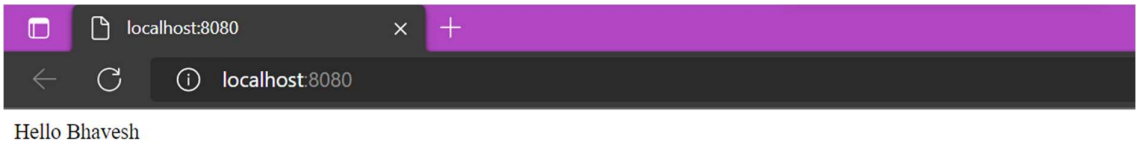
The app.yaml file to be used to make web application using GAE.



Files present in the folder which will be used to deploy the application.

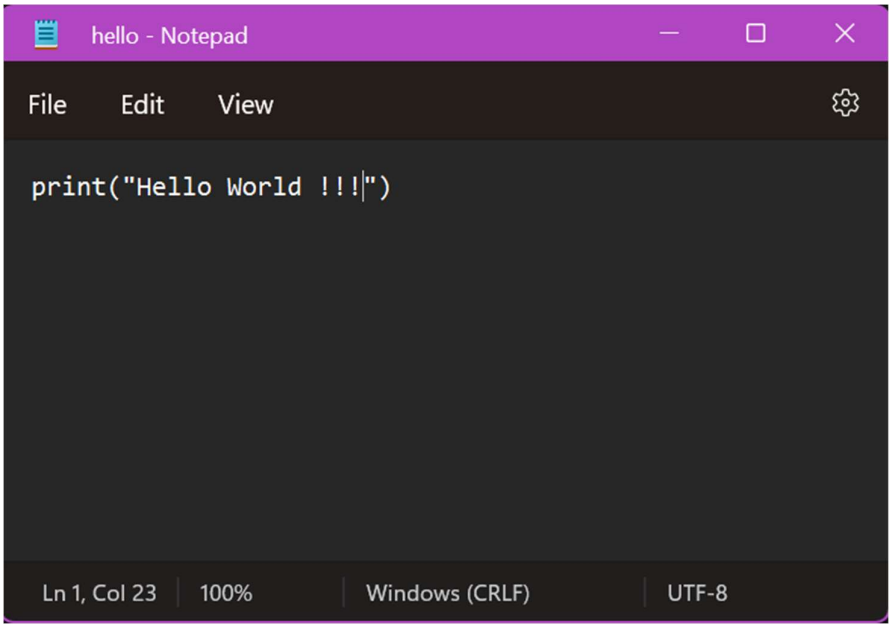


Launching the Google Cloud SDK shell. The application is deployed using the command “python google-cloud-sdk/bin/dev_appserver.py “[Path to the Directory]” “

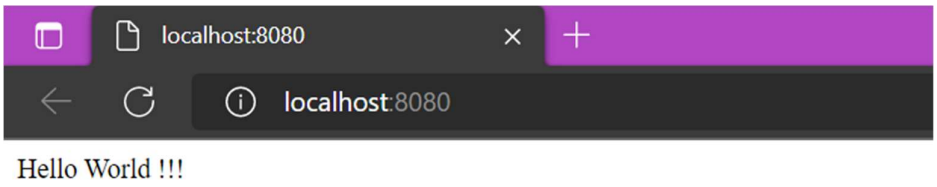


Hello Bhavesh

The application is launched after the command has been executed



Now editing the file to make changing to Hello World



Hello World !!!

The application has been launched again using the above command

The same steps are used to launch other applications using above steps.

Conclusion:

In this practical, we install different types of OS on Oracle VirtualBox. We executed a simple C Program in Linux. We also saw how PaaS is useful and how Google App Engine is used to deploy applications. Google App Engine is one of PaaS service used today by many people.