

Setup a New Virtual Machine

Aim:-

To install virtual Box / VMware workstation with different flavours of Linux or windows.

Procedure:-

1. Install Oracle Virtual Box software download Ubuntu and Windows 7 Ultimate OS in the system. Click on Oracle Virtual Box → New.
2. Give name for the operating system select type that we want to install, select the version of the OS.
3. Select the memory size of the OS.
4. Now, select hard disk to create an Hard Disk.

5. Select Hard Disk type as VHD.
6. Select Dynamically allocated.
7. Browse the file location and allocate the size for the disk.
8. Mount Ubuntu OS on optional drive.
9. Click on Start to create a Virtual OS.

10. Similarly install Windows 7 Ultimate like the above process.

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Result:-

Thus the installation of VirtualBox /
VMware workstation with different flavours
of Linux or windows OS on top of windows 7
or 8 is done successfully.

Running AC Program in Guest OS

Aim:-

To install a C compiler in the Virtual Machine Created using virtual Box and execute a simple program.

Procedure :-

1. open Oracle virtual Box Software,
open Ubuntu 20.04.1 LTS

2. Run the command sudo apt install gcc.

3. Run the command sudo - version

4. Run the Command sudo apt install build essential.

5. Run the Command sudo nano fact.c, type the C coding into it.

Program:-

```
#include <stdio.h>
```

```
Void main()
{
```

```
Int i, n, fact = 1;
```

```
Printf ("Enter a number");
```

```
Scanf ("%d", &n);
```

```
for (i=0; i<n; i++)
```

```
{
```

```
fact = fact * i;
```

Printf ("Factorial of %d is %d", n, fact);
{
}

- b. save the file as $\text{ctrl} + \text{s}$
- c. Exit the file $\text{ctrl} + \text{x}$.
- d. Run the command $\text{gcc fact.c -o fact}$

to Run the command 1k for output

Result :-

Thus C Compiler is installed in the
virtual Machine created using virtual Box
and simple program is executed and
output is verified.

Install a google App Engine
 Create HelloWorld web Application App other simple
 using Python

Aim:-

To install google App Engine and to
 Create a hello world app using Python.

Procedure:-

1. Download and Install Cloud SDK.
2. gcloud Components update.
3. Create a new Project.
4. gcloud Project Create [saloe cse] set as default.
5. Initialize your app engine with your Project and choose its region.
6. gcloud app Create Project [saloe cse].
7. Install the following Requestors.
8. Cloud Components Install app engine Python.
9. Use Powershell to run your Python Package. Isolate your installation of Powershell.

Power * Right click on the shortcut to start it and administer.
 or a directly * Create an isolated Python environment external to your Project and activate it.

Python - m very env
 env / scripts | activate

Install * Navigate to your Project directory and dependencies.

cd HelloWorld

Pip install - r requirements.txt

* Run the application.

Python main.py

* In your web browser, enter following address.

<http://localhost:8080>

Deploy and run Hello World on App Engine:-

To Deploy your app to the App Engine Standard Environment

* Deploy the Hello world app by running the following command from the Standard - Python 3 / HelloWorld directory.

gcloud app deploy.

* Learn about the optional flags.
* Launch your browser to view the app at `http://Saloece.appspot.com`

gcloud app deploy.

* Where Saloece represents your Google Cloud Project ID.

This time, the page that displays the Hello World message is delivered by the Hello World Message is delivered a server running on an App Engine.

Result:-

I installed and a hello world app was created using Python successfully. Thus the google app engine is

Using GAE Launcher to launch the Web Application

Obj:-

To launch a web application using GAE launcher.

Procedure:-

- * Install Flash
- * Import flash and create a flash web server from the `WSGIFlash` module.
- * Creating an instance of the flash class and calling it app.
- * Create two html files named `about.html` and `index.html`.
- * Save these html files in a folder named `templates`.
- * Save the Python file in the same location where the template folder.

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Result:-

launched
executed

Thus the web application was
by GAE launches was
Successfully.

Simulate a cloud Scenario using cloudsim & run a scheduling algorithm that is not present in cloudsim.

Aim:-

To simulate a cloud scenario using cloudsim and run a scheduling algorithm that is not present in cloudsim.

Procedure:-

1. Open the Browser and search for fcfs cloudsim git.
2. Then download the full package as zip file. After downloading task-scheduling then extract it.
3. Open the src folder inside the cloudsim task scheduling src folder consist of different scheduling algorithm fcfs, srt, Bo and round robin select anyone of it.
4. Before running the scheduling algorithm copy all the file inside the anyone of the folder that your going to use.
5. Then open the jcreator open all the files present inside the algorithm folder that your going to use.

6. After opening all the file then configure the java environment.

Configure → option → jdk Profile → Double click on jdk version to open the jdk Profile dialog Box.

7. In that add → Add Archive to add two jar file that present inside the cloudsim - task - scheduling → java folder.

8. Then compile all the file and run the file (algorithm-name) - schedule.java.

Result:-

Thus, the program to simulate the cloud scenario using cloudson and run a scheduling algorithm that is not present in cloudson has been implemented and the output is verified.