

**CLOUD COMPUTING 2023**  
**ASSIGNMENT ON Openstack (TOTAL MARKS 30)**

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**List of tasks**

**Task-1: Launch two VM instances;**

**Marks: (6+6=12)**

- Log in to cloud platform using the URL and credentials mentioned below
  - URL: <http://10.72.40.100>
  - User Name: student roll number in upper case (e.g. 18CS30001)
  - Password: student roll number in upper case (e.g. 18CS30001)
- Select the option to launch a new virtual machine instance
- Choose the desired configuration for the instance (e.g. operating system, flavor, network, etc.)
  - *Note: Make a **config.txt** file and add the following script:*

```
#cloud-config
password: ubuntu@$#
chpasswd: {expire: False}
ssh_pwauth: yes
bootcmd:
- printf "nameserver 172.16.1.180" >> /etc/resolv.conf
```
  - **Upload config.txt** file while launching the VMs when prompted for **configuration**.
  - To access the instance, **Edit Port Security Group** using below steps:  
Project --> Compute --> Instances --> Open Instance --> Interfaces --> Actions  
--> Select Edit Port from drop down --> uncheck Port Security --> Update.
- Repeat the above steps to launch a second instance

## Task-2: Log-in to one VM instance and install GCC compiler;

Marks : (3+5+4+3=15)

- Log in to the first virtual machine instance using the proper credentials
- Run the following commands in the terminal:
  - `sudo apt update` (update)
  - `sudo apt install build-essential` (Install build-essential)
  - `gcc --version` (check GCC version, if installed successfully)
- Use the **nano** editor to write a **C program** to print your roll number
- Compile and run the C program using GCC

## Task-3: Exit and delete the instances

Marks : (1+1+1=3)

- Exit from the virtual machine instance you are logged in to
- Shut down the running instances
- Delete the instances from the platform.