

**COURSE:CLOUD COMPUTING AND  
BIG DATA ANALYSIS FOR WEB  
SERVICES**

**COURSE CODE:CSA1592**




**SERIAL NUMBER :18**

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**REGISTER NUMBER:192210669**


# EXP NO 1: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION AND PROVIDE IT AS A SERVICE USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SOFTWARE AS A SERVICE (SAAS).


Booking Movie Ticket  
user details





Done


Basic Fields


  
Name


  
Email


  
Address


  
Phone


  
Single Line


  
Multi Line


  
123  
Number


  
15  
Date


  
Time


  
Drop Down


  
Name

  
Phone

  
Email

  
Date-Time

  
Theatres

  
Drop Down

Field Properties

Field name

Field link name

Validation

☐ Mandatory

Display Fields

☐ Prefix

☒ First Name

☒ Last Name

☐ Suffix

Data Privacy

## EXP NO 2: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION FOR FLIGHT RESERVATION SYSTEM USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SAAS.

**Basic Fields**

- Name
- Email
- Address
- Phone
- Single Line
- Multi Line
- 123
- Number
- Date
- Time
- Drop Down

**Field Properties**

- Field name: Name
- Field link name: Name
- View Field References
- Validation:
  - ☒ Mandatory
- Display Fields:
  - ☐ Prefix
  - ☒ First Name
  - ☒ Last Name
  - ☐ Suffix

## EXP NO 3: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION FOR PROPERTY BUYING & RENTAL PROCESS (IN CHENNAI CITY) USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SAAS.

**Basic Fields**

- Name
- Email
- Address
- Phone
- Single Line
- Multi Line
- 123
- Number
- Date
- Time
- Drop Down

**Field Properties**

- Field name: Name
- Field link name: Name
- View Field References
- Validation:
  - ☒ Mandatory
- Display Fields:
  - ☐ Prefix
  - ☒ First Name
  - ☒ Last Name
  - ☐ Suffix

**EXP NO 4: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION FOR CAR BOOKING RESERVATION SYSTEM USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SAAS.**

The screenshot displays a web-based application interface for a car booking reservation system. The top navigation bar includes a logo, the text "flighting booking Pick Your Seat", a dropdown menu, a plus icon, and a "Done" button. The main interface is divided into three sections: "Basic Fields", "Field Properties", and a central form area.

**Basic Fields:** This section contains a grid of field types with icons and labels: Name, Email, Address, Phone, Single Line, Multi Line, Number, Date, Time, and Drop Down.

**Field Properties:** This section allows configuration for the selected field. It includes:

- Field name:** A text input field containing "Name".
- Field link name:** A text input field containing "Name".
- Validation:** A checkbox labeled "Mandatory" which is checked.
- Display Fields:** A section with checkboxes for "Prefix", "First Name", "Last Name", and "Suffix". "First Name" and "Last Name" are checked.

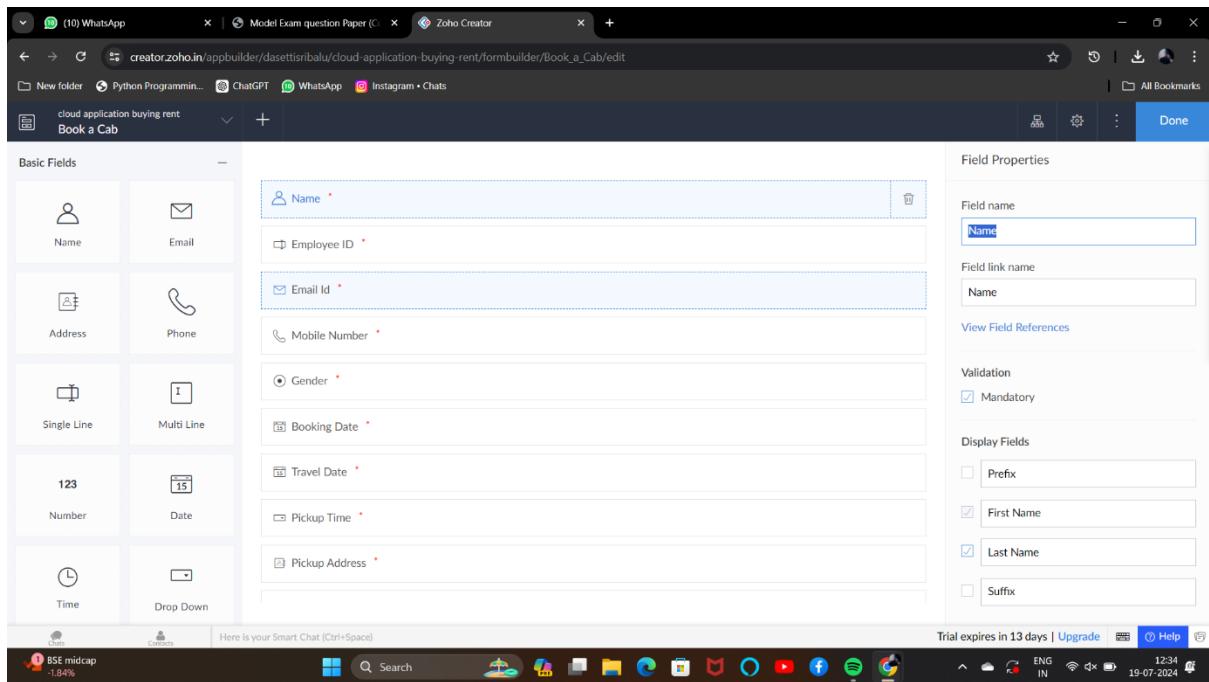
**Central Form Area:** This area shows a list of fields being configured:

- Name:** A text input field with a red asterisk indicating it is mandatory.
- Mobile Number:** A text input field with a red asterisk.
- Email:** A text input field with a red asterisk.
- Date:** A date picker field with a red asterisk.
- Your notes content will be shown here:** A text area field.
- Seats:** A checkbox field with a red asterisk.
- Your notes content will be shown here:** A second text area field.

A "Configure Zia" link is visible below the second notes field.

The bottom status bar shows a chat icon, the text "Here is your Smart Chat (Ctrl+Space)", a trial expiration notice "Trial expires in 15 days | Upgrade", and a "Help" button.

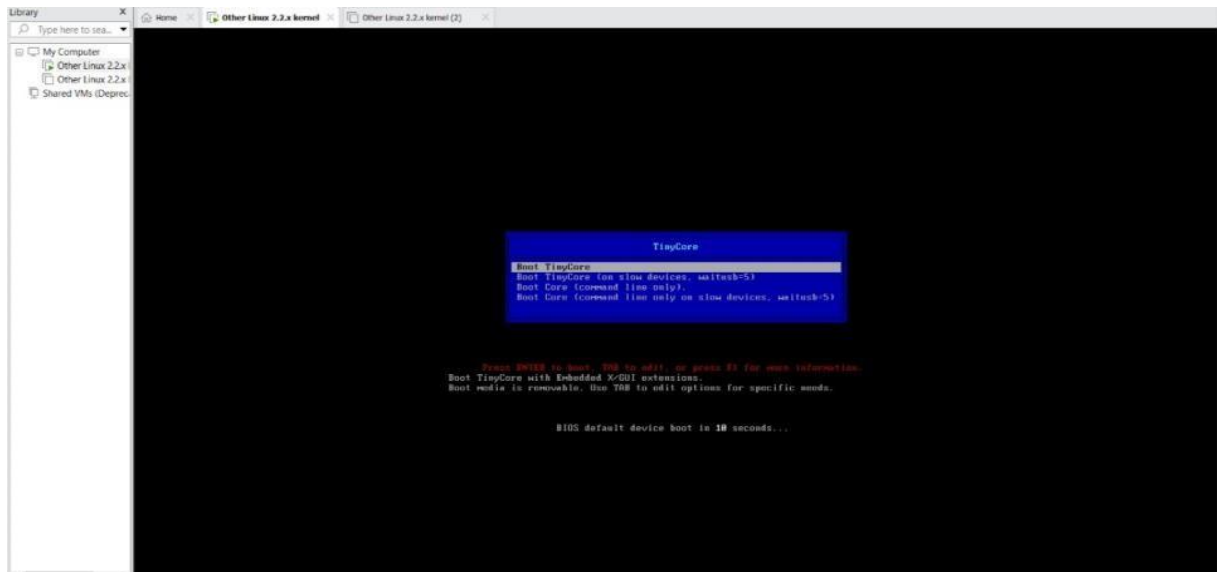
**EXP NO 5: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION FOR LIBRARY BOOK RESERVATION SYSTEM FOR SIMATS LIBRARY USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SAAS**



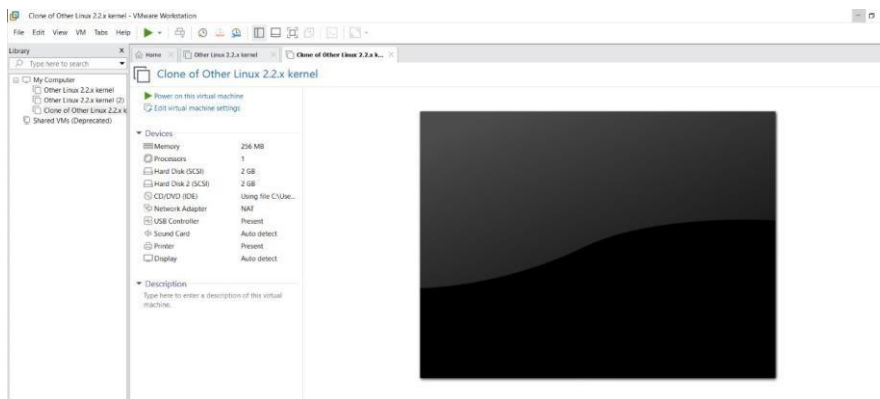
**EXP NO 6: CREATE A SIMPLE CLOUD SOFTWARE APPLICATION FOR PRODUCT SELLING USING ANY CLOUD SERVICE PROVIDER TO DEMONSTRATE SAAS.**



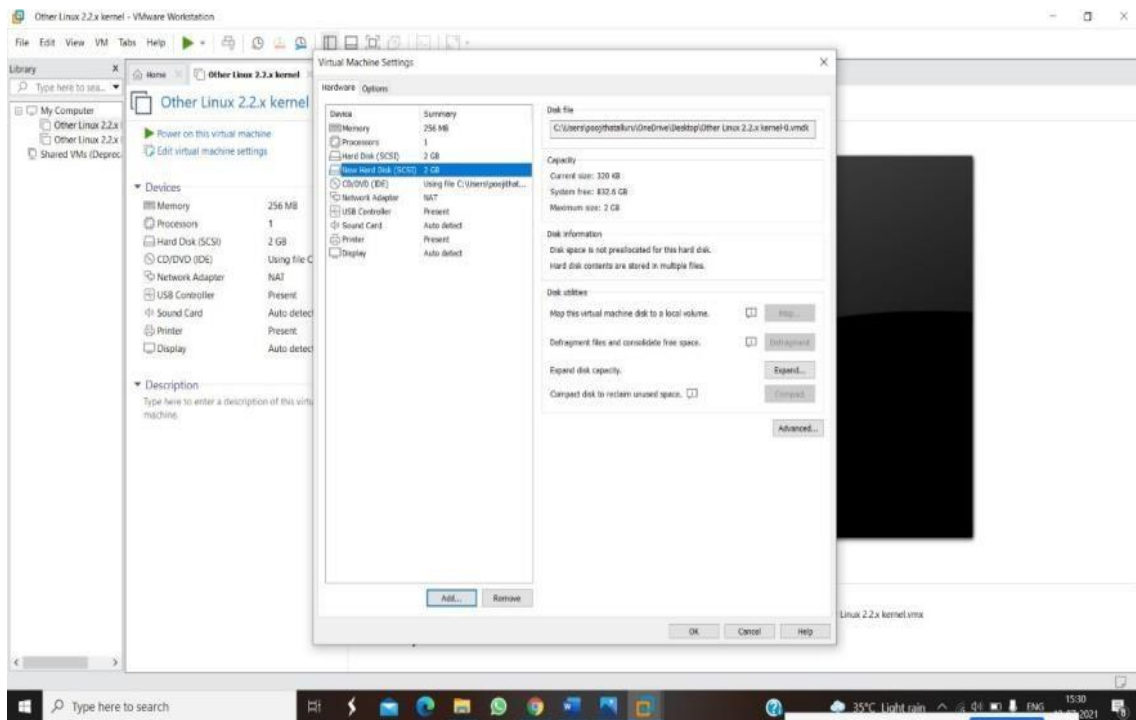
**EXP NO 7: DEMONSTRATE VIRTUALIZATION BY INSTALLING TYPE-2 HYPERVISOR IN YOUR DEVICE, CREATE AND CONFIGURE VM IMAGE WITH A HOST OPERATING SYSTEM (EITHER WINDOWS/LINUX).**



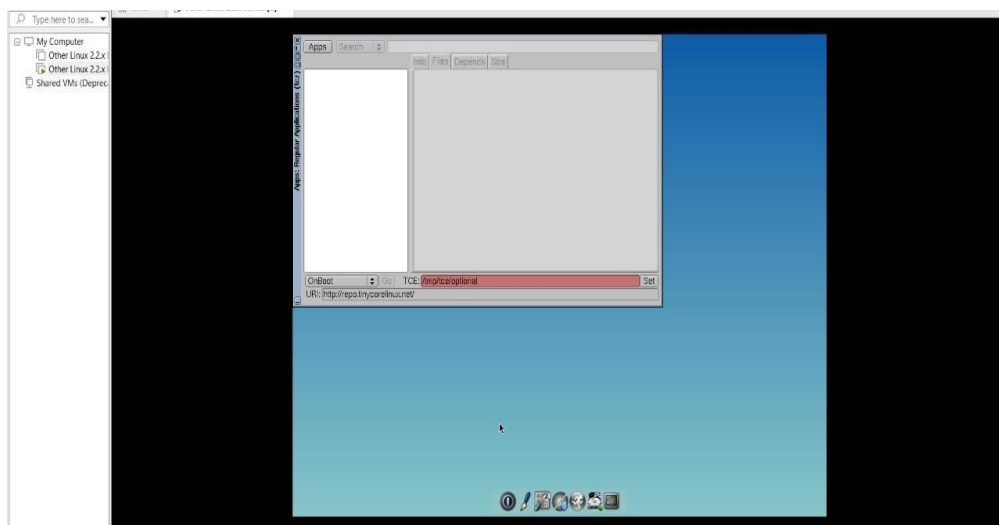
**EXPNO 8: CREATE A VIRTUAL MACHINE WITH 1 CPU, 2GB RAM AND 15GB STORAGE DISK USING A TYPE 2 VIRTUALIZATION SOFTWARE.**



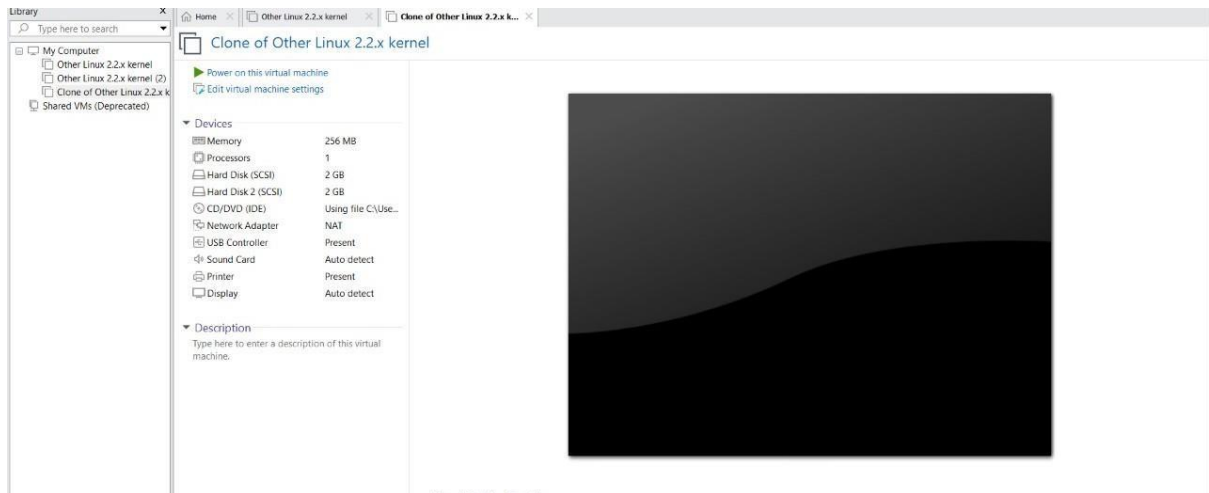
**EXP 9: CREATE A VIRTUAL HARD DISK AND ALLOCATE THE STORAGE USING VM WARE WORKSTATION.**



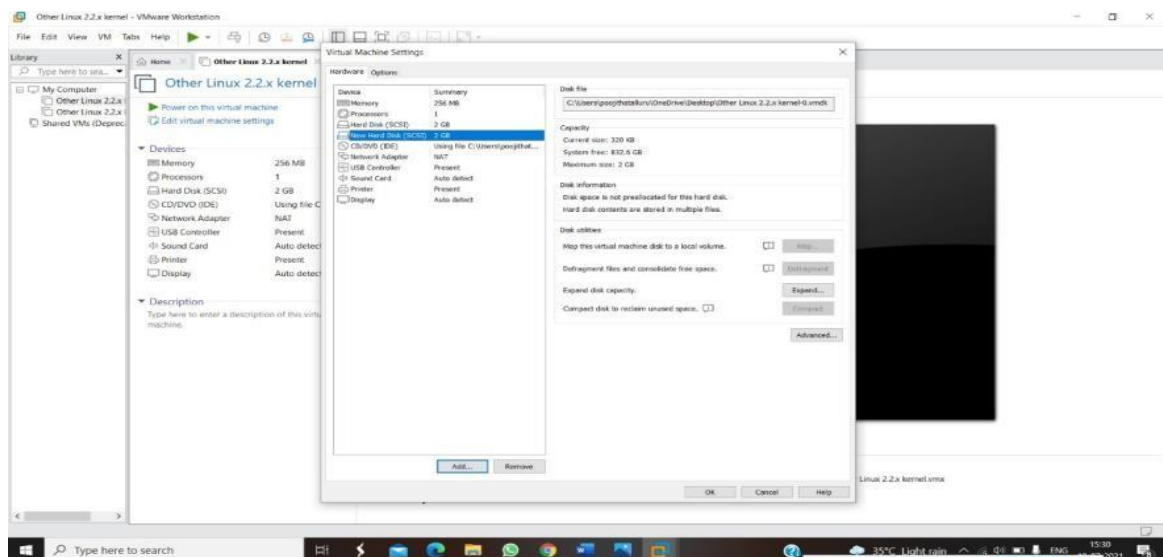
**EXPNO 10: CREATE A SNAPSHOT OF A VM AND TEST IT BY LOADING THE PREVIOUS VERSION/CLONED VM**



## EXPNO 11: CREATE A CLONING OF A VM AND TEST IT BY LOADING THE PREVIOUS VERSION/CLONED VM.

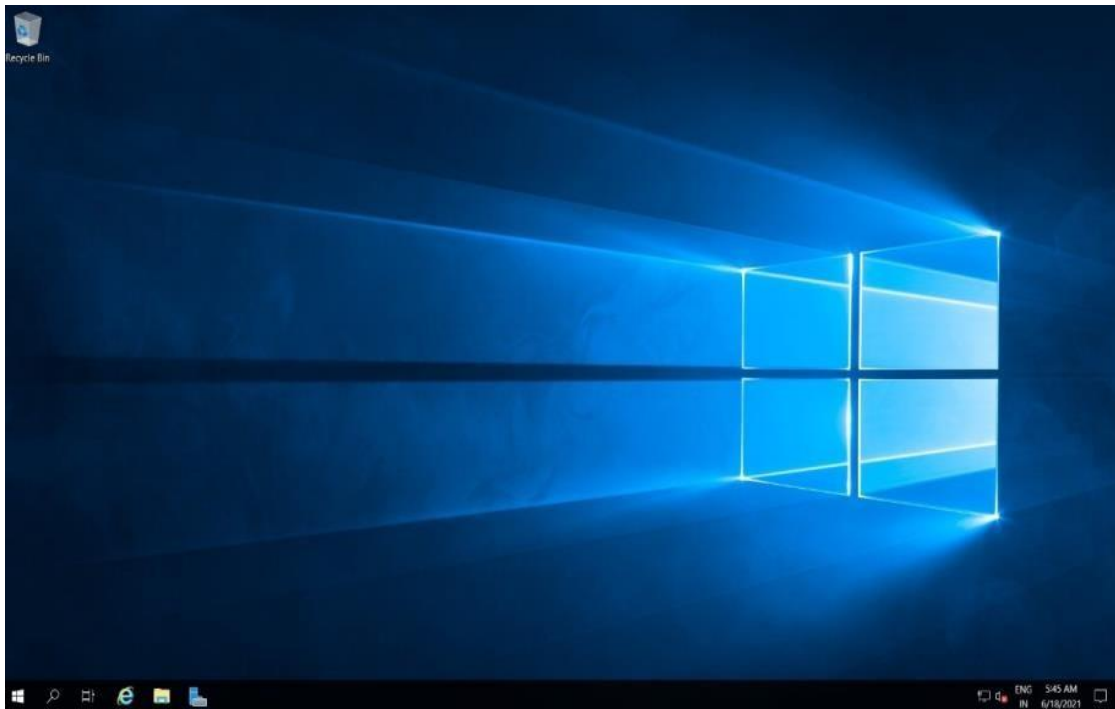


## EXP 12: CHANGE HARDWARE COMPATIBILITY OF A VM (EITHER BY CLONE/CREATE NEW ONE) WHICH IS ALREADY CREATED AND CONFIGURED.

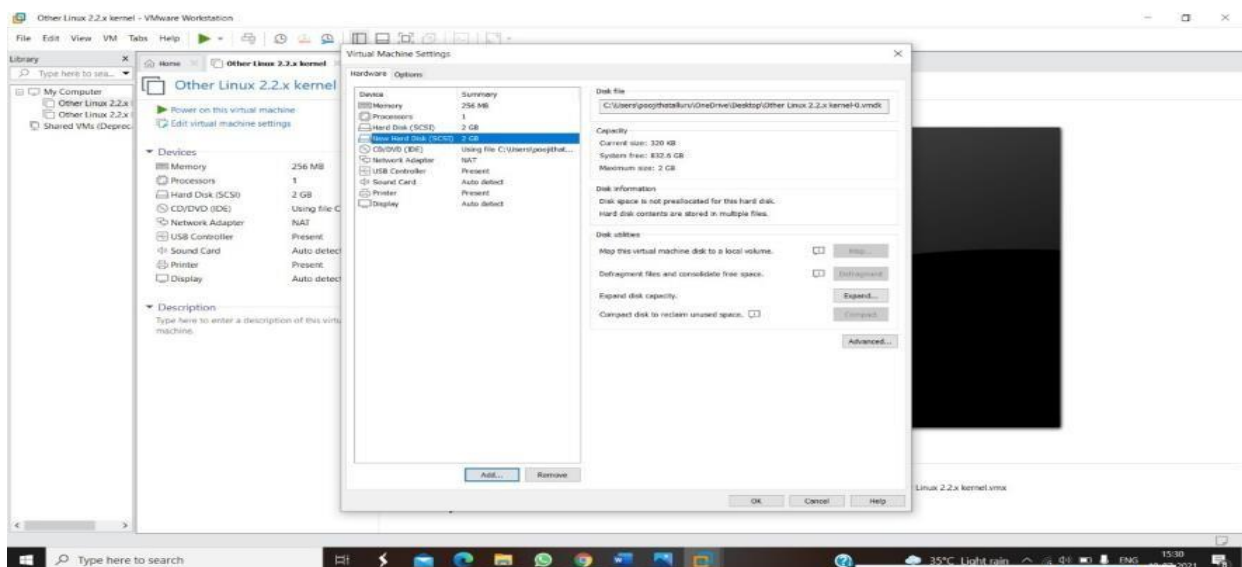




**EXP13. DEMONSTRATE INFRASTRUCTURE AS A SERVICE (IAAS) BY CREATING A VIRTUAL MACHINE USING A PUBLIC CLOUD SERVICE PROVIDER (AZURE), CONFIGURE WITH REQUIRED MEMORY AND CPU.**

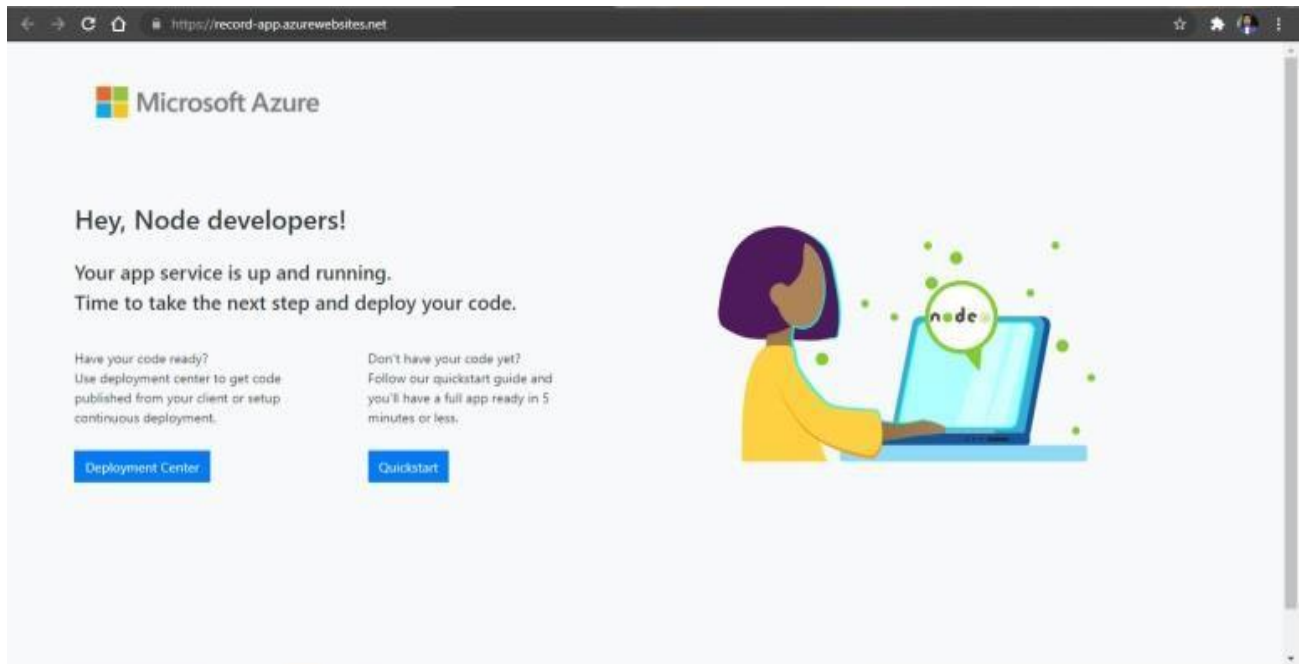


**EXP14:** Demonstrate Infrastructure as a Service (IaaS) by creating a Virtual Machine using a Public Cloud Service Provider (Azure), configure with required memory and CPU.

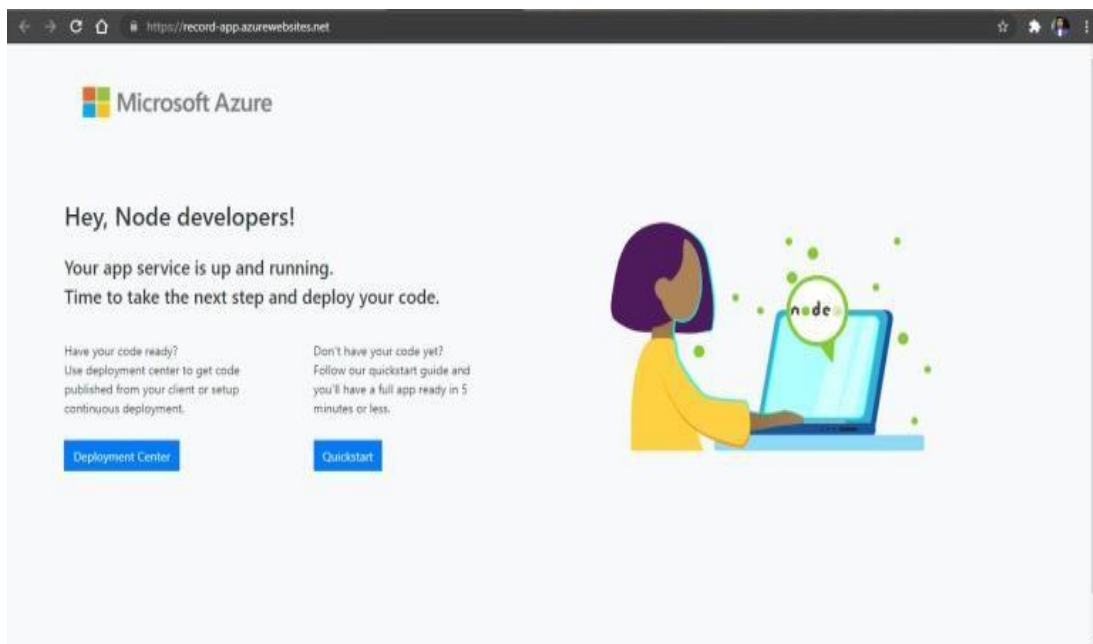


**EXP15.CREATE A SIMPLE WEB SITE USING ANY PUBLIC CLOUD SERVICE PROVIDER**

**(AZURE/GCP/AWS) AND CHECK THE PUBLIC ACCESSIBILITY OF THE STORED FILE TO  
DEMONSTRATE STORAGE AS A SERVICE**



**EXP 16 .Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider**



**EXP 17 .DEMONSTRATE INFRASTRUCTURE AS A SERVICE(IAAS) BY CREATING A VIRTUAL MACHINE  
USING A PUBLIC CLOUD SERVICE PROVIDER(AZURE/GCP/AWS) CONFIGURE WITH MINIMUM CPU,  
RAM AND STORAGE AND LAUNCH THE VM IMAGE.**

Microsoft Azure Search resources, services, and docs (G+)

Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20210721104828 >

**Record-virtual** Virtual machine

Search (Ctrl+J) Connect Start Restart Stop Capture Delete Refresh Open in mobile

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
  - Networking
  - Connect
  - Windows Admin Center (preview)
  - Disks
  - Size
  - Security
  - Advisor recommendations
  - Extensions

**Essentials** JSON View

Resource group (change)	Record	Operating system	Windows (Windows Server 2019 Datacenter)
Status	Running	Size	Standard DS1 v2 (1 vcpu, 3.5 GiB memory)
Location	East US	Public IP address	23.96.9.147
Subscription (change)	Azure for Students	Virtual network/subnet	Record-vnet/default
Subscription ID	db4eee0b-1e34-4be0-9c9c-65cc8d398405	DNS name	Not configured
Tags (change)	<a href="#">Click here to add tags</a>		

Properties Monitoring Capabilities (8) Recommendations Tutorials

**Virtual machine**

Computer name	Record-virtual
Operating system	Windows (Windows Server 2019 Datacenter)
Publisher	MicrosoftWindowsServer
Offer	WindowsServer
Plan	2019-Datacenter
VM generation	V1
Agent status	Ready

**Networking**

Public IP address	23.96.9.147
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	Record-vnet/default
DNS name	<a href="#">Configure</a>

https://portal.azure.com/#

**EXP 18. Demonstrate Storage as a Service (SaaS) create and configure a new VM Image in any Public Cloud Service Provider**

https://record-app.azurewebsites.net

Microsoft Azure

Hey, Node developers!


Your app service is up and running.  
Time to take the next step and deploy your code.

Have your code ready?  
Use deployment center to get code published from your client or setup continuous deployment.

[Deployment Center](#)

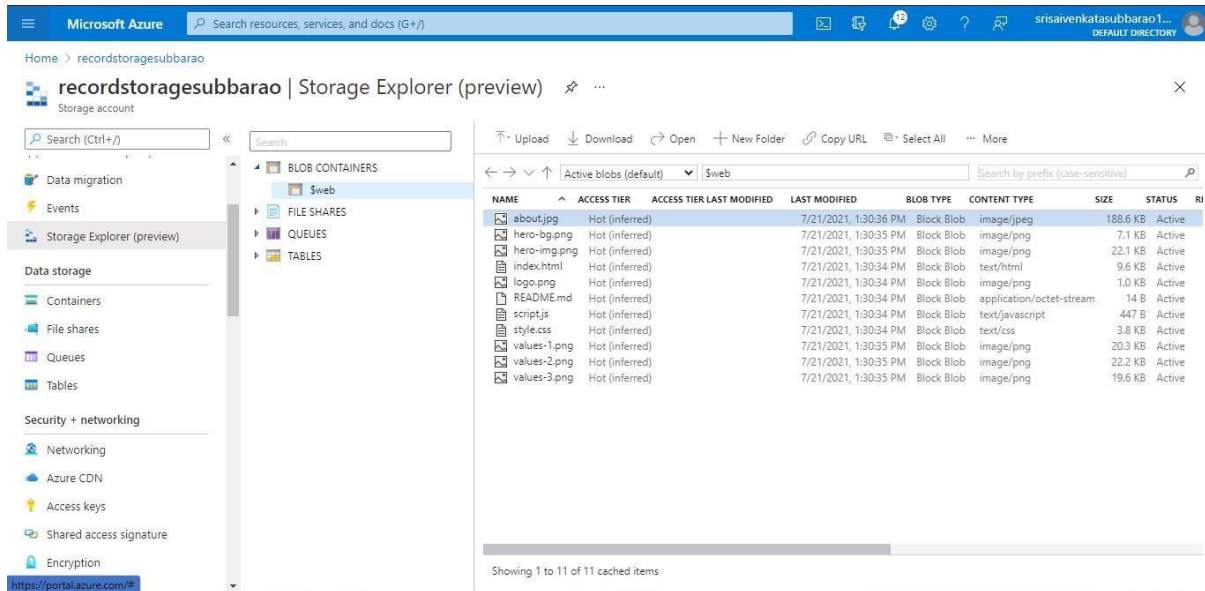
Don't have your code yet?  
Follow our quickstart guide and you'll have a full app ready in 5 minutes or less.

[Quickstart](#)

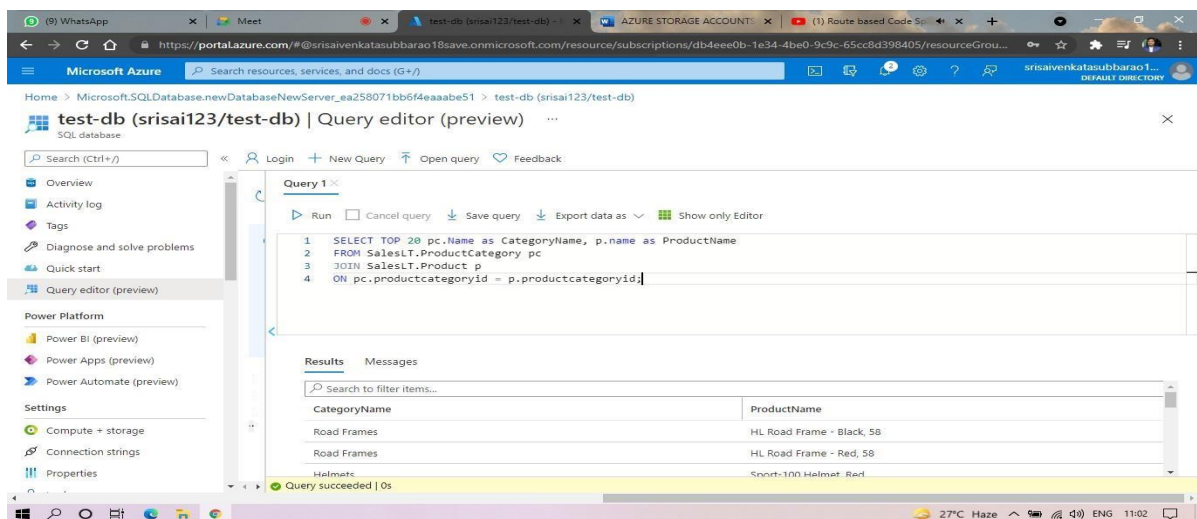


**EXP19.CREATE A STORAGE SERVICE USING ANY PUBLIC CLOUD SERVICE PROVIDER (AZURE/GCP/AWS)**

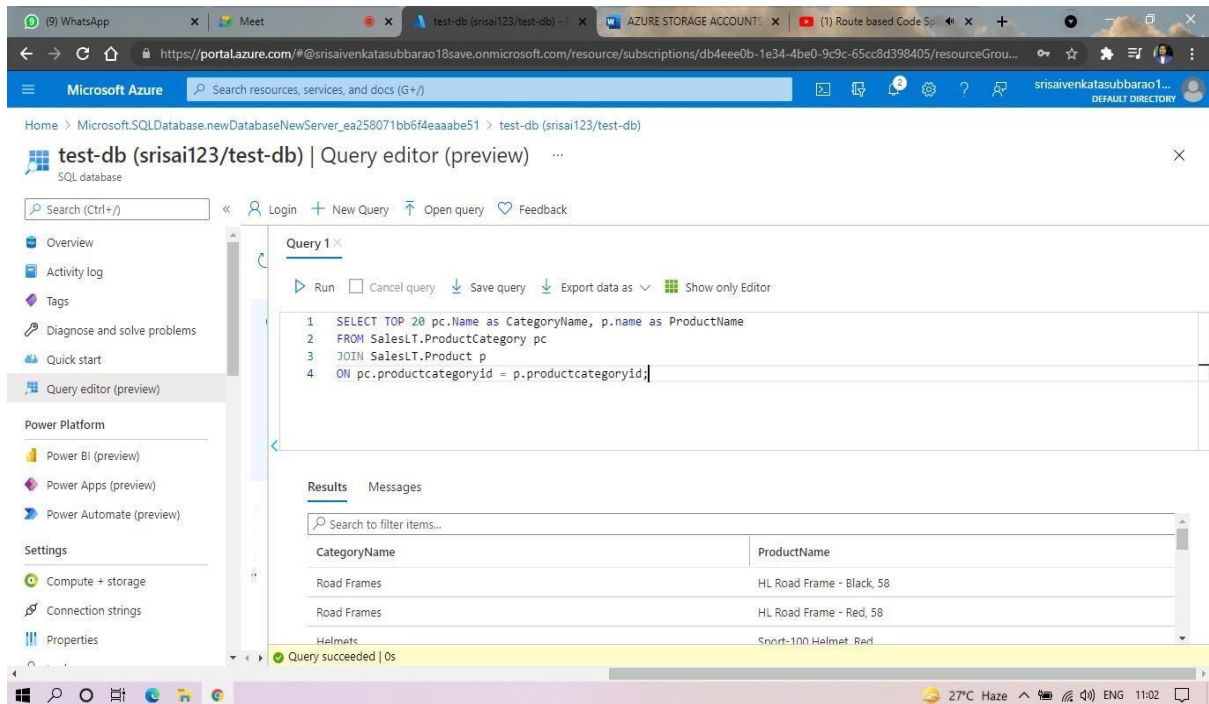
**AND CHECK THE PUBLIC ACCESSIBILITY OF THE STORED FILE TO DEMONSTRATE STORAGE AS A SERVICE.**



**EXP20.CREATE A SQL STORAGE SERVICE AND PERFORM A BASIC QUERY USING ANY PUBLIC CLOUD SERVICE PROVIDER (AZURE/GCP/AWS) TO DEMONSTRATE DATABASE AS A SERVICE (DAAS)**



## EXP-21.Create a SQL storage service and perform a basic query using any Public Cloud Service Provider (Azure/GCP/AWS) to demonstrate Database as a Service (DaaS)



Microsoft Azure portal showing the Query editor for a SQL database. The query is:

```
1 SELECT TOP 20 pc.Name as CategoryName, p.name as ProductName
2 FROM SalesLT.ProductCategory pc
3 JOIN SalesLT.Product p
4 ON pc.productcategoryid = p.productcategoryid
```

The results show the following data:

CategoryName	ProductName
Road Frames	HL Road Frame - Black, 58
Road Frames	HL Road Frame - Red, 58
Helmet	Snort-100 Helmet - Red

## EXP-22.Perform the basic configuration setup for installing HADOOP 2.x like creating the HDUSER and SSH localhost

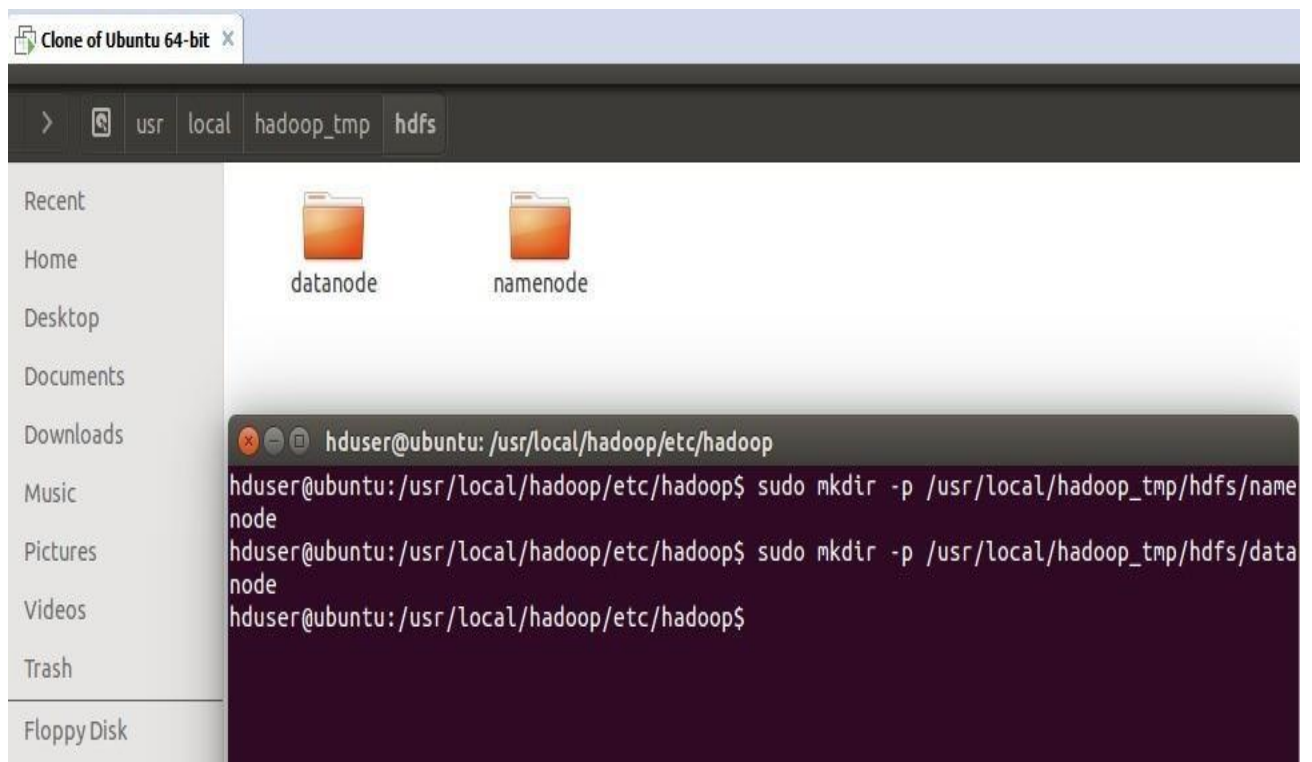
```
udhay@ubuntu:~$ su hduser
Password:
hduser@ubuntu:/home/udhay$ ssh-keygen -t rsa -P ""
Generating public/private rsa key pair.
Enter file in which to save the key (/home/hduser/.ssh/id_rsa):
/home/hduser/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Your identification has been saved in /home/hduser/.ssh/id_rsa.
Your public key has been saved in /home/hduser/.ssh/id_rsa.pub.
The key fingerprint is:
09:0f:15:f2:b2:b7:5e:11:1a:6c:d3:2f:c3:09:02:15 hduser@ubuntu
The key's randomart image is:
+----[RSA 2048]-----+
| ..E.O. |
| . = . |
| = B O |
| O B + |
| . S * . |
| . . + |
| . . |
| . . |
| . . |
+-----+
hduser@ubuntu:/home/udhay$
hduser@ubuntu:/home/udhay$ cat $HOME/.ssh/id_rsa.pub >> $HOME/.ssh/authorized_keys
hduser@ubuntu:/home/udhay$ ssh localhost
Welcome to Ubuntu 15.04 (GNU/Linux 3.19.0-84-generic x86_64)

* Documentation: https://help.ubuntu.com/

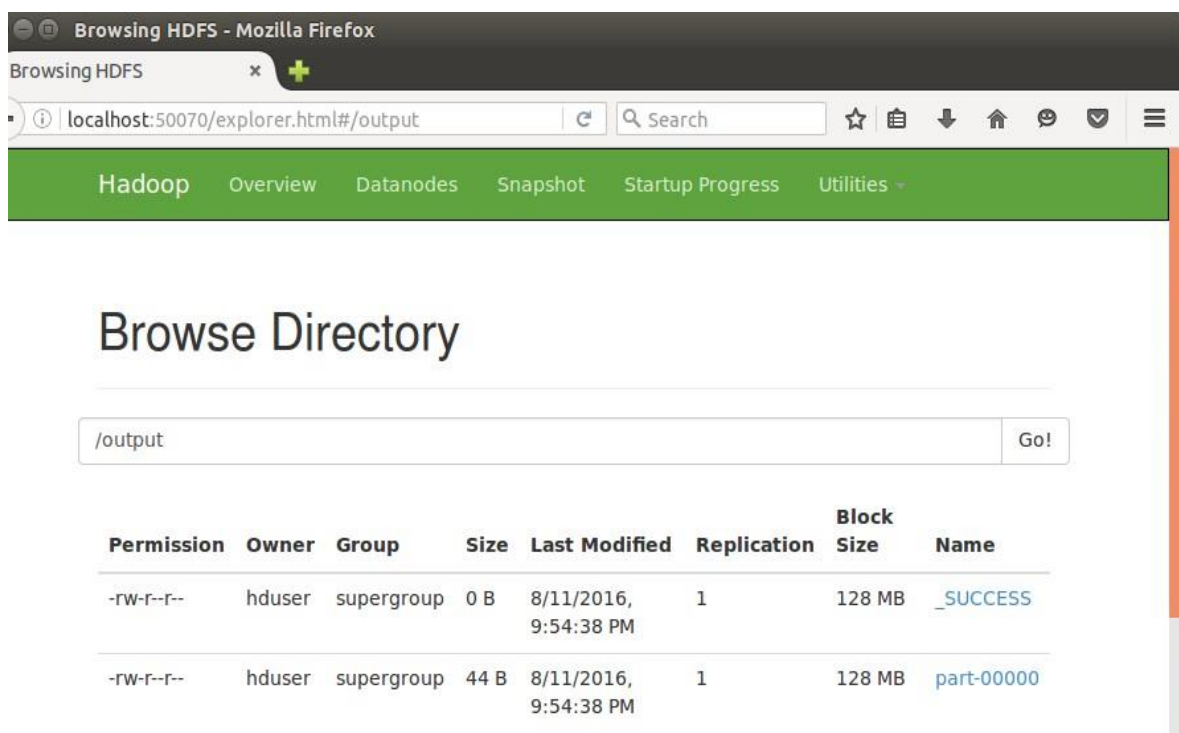
Last login: Thu Jul 15 22:00:14 2021 from localhost
hduser@ubuntu:~$
```



## EXP-23. Install Hadoop 2.x and configure the Name Node and Data Node.



## EXP-24. Launch the Hadoop 2.x and test the Map-Reduce Platform with Hadoop.



# EXP-25. Launch the Hadoop 2.x and perform Map-Reduce program For a word count problem

Browsing HDFS - Mozilla Firefox

Browsing HDFS x +

localhost:50070/explorer.html#/

Search

Permission	Owner	Group	Size	Last Modified	Replication	Size	Name
drwxr-xr-x	hduser	supergroup	0 B	8/12/2016, 12:20:50 AM	0	0 B	cloud
drwxr-xr-x	hduser	supergroup	0 B	8/11/2016, 1:47:41 AM	0	0 B	cse
drwxr-xr-x	hduser	supergroup	0 B	8/4/2016, 11:37:37 PM	0	0 B	folder
drwxr-xr-x	hduser	supergroup	0 B	8/11/2016, 9:52:15 PM	0	0 B	grid
drwxr-xr-x	hduser	supergroup	0 B	8/11/2016, 9:54:38 PM	0	0 B	output
drwxr-xr-x	hduser	supergroup	0 B	8/11/2016, 11:54:23 PM	0	0 B	project
drwx-----	hduser	supergroup	0 B	8/4/2016, 11:40:37 PM	0	0 B	tmp