Practical No.	Laboratory Assignments
Cloud Computing	
1	Case study on Amazon EC2 and learn about Amazon EC2 web services.
2	Installation and configure Google App Engine.
3	CreatinganApplicationinSalesForce.comusingApexprogrammingLanguage.
4	Design and develop custom Application (Mini Project) using Sales force Cloud.
5	**Mini-Project** Setup your own cloud for Software as a Service (SaaS) over the existing LAN in your laboratory. In this assignment you have to write your own code for cloud controller using open-source technologies to implement with HDFS. Implement the basic operations may be like to divide the file in segments/blocks And upload/download file on/from cloud in encrypted form.

Practical No :01

PracticalTitle: Case study on Amazon EC2 and learn about Amazon EC2 web services.

Objectives:

- To learn Amazon EC2 web services
- To study on Amazon EC2 and learn about Amazon EC2 web services.

HardwareRequirements:

- Pentium IV with latest configuration

SoftwareRequirements:

- Ubuntu20.04

Theory:

An EC2 instance is nothing but a virtual server in Amazon Web services terminology. It stands for Elastic Compute Cloud. It is a web service where an AWS subscriber can request and provision a compute server in AWS cloud.

An on-demand EC2 instance is an offering from AWS where the subscriber/user can rent the virtual server per hour and use it to deploy his/her own applications.

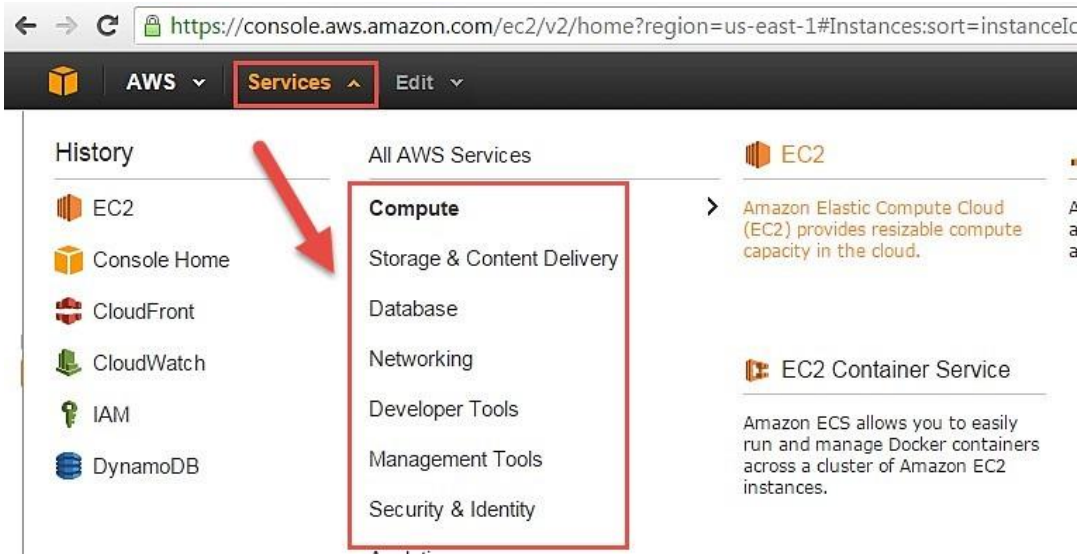
Theinstancewillbechargedperhourwithdifferentratesbasedonthetypeofthe instance chosen. AWS provides multiple instance typesfor the respective businessneedsof the user.

Thus,youcanrentaninstancebasedonyourownCPUandmemoryrequirementsand useitaslongasyouwant.Youcanterminatetheinstancewhenit'snomoreusedand save on costs. This is the most striking advantage of an on-demand instance- you can drastically save on your CAPEX.

Let us see in detail how to launch an on-demand EC2 instance in AWS Cloud.Login and access to AWS services

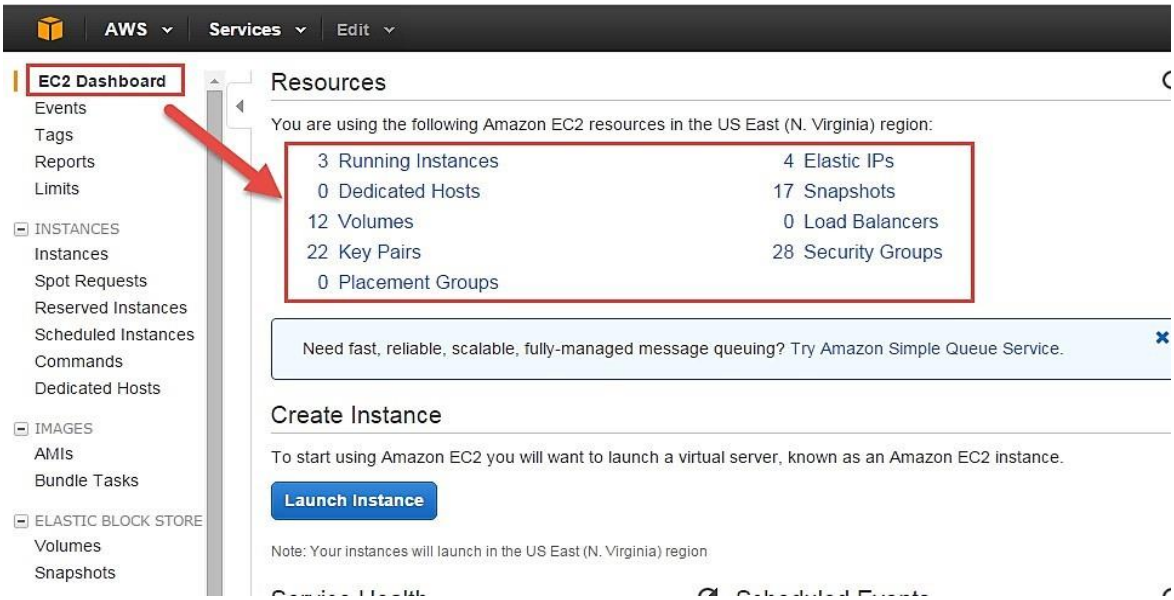
Step1)Inthisstep,

- LogintoyourAWSaccountandgototheAWSServicestabatthetopleftcorner.
- Here, you will see all of the AWS Services categorized as per their area viz. Compute, Storage,Database,etc.ForcreatinganEC2instance,we havetochoose ComputeàEC2 as in the next step.



- Open all the services and click on EC2 under Computeservices. This will launch thedashboard of EC2.

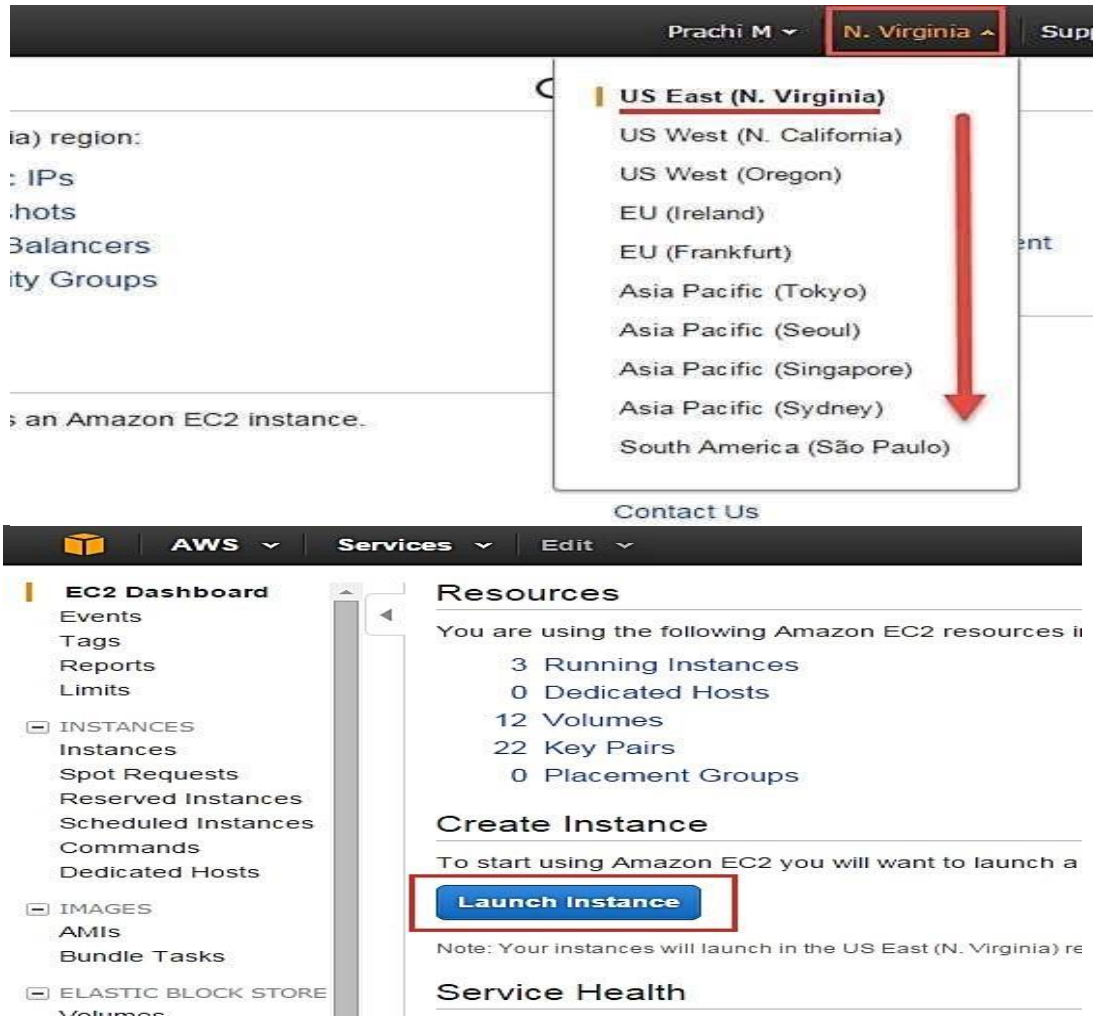
HereistheEC2dashboard. Hereyouwillgetalltheinformationingistabouttheaws EC2 resources running.



Step2) OnthetoprightcorneroftheEC2dashboard,choosetheAWSRegionin which youwant to provision the EC2 server.
HerewareselectingN.Virginia.AWSprovides10Regionsallovertheglobe

Step3)Inthisstep

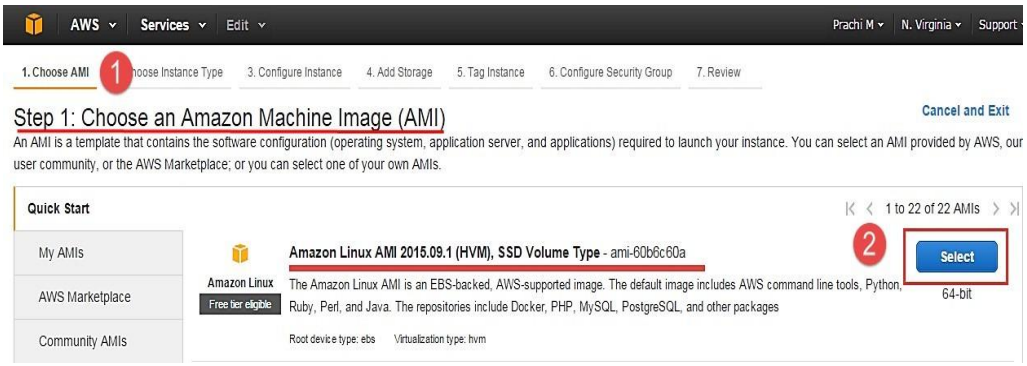
- OnceyourdesiredRegionisselected,comebacktotheEC2Dashboard.
- Clickon'LaunchInstance'buttoninthesectionofCreateInstance(asshownbelow).



- Instance creation wizard page will open as soon as you click 'LaunchInstance'.Choose AMI

Step1)Inthisstepwewilldo,

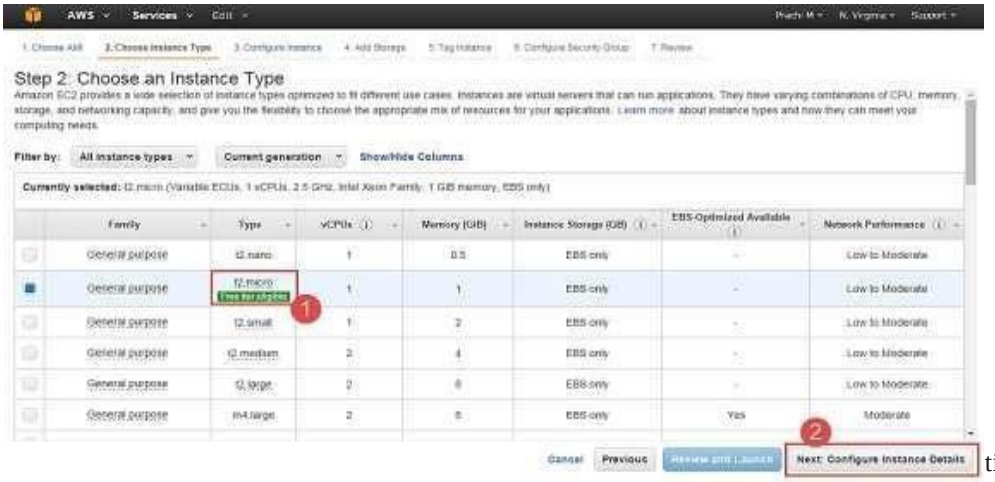
1. You will be asked to choose an AMI of your choice. (An AMI is an Amazon Machine Image.ItisatemplatebasicallyofanOperatingSystemplatformwhichyoucanuseasa base to create your instance). Once you launch an EC2 instance from yourpreferred AMI, the instance will automatically be booted with the desired OS. (We will see more about AMIs in the coming part of the tutorial).
2. HerewearechoosingthedefaultAmazonLinux(64bit)AMI.



ChooseEC2InstanceTypes

Step1) Inthenextstep,youhavetochoosethetypeofinstanceyourequirebasedon yourbusiness needs.

1. Wewillchooset2.microinstancetype,whichisa1vCPUand1GBmemory serveroffered by AWS.
2. Clickon"ConfigureInstanceDetails"forfurtherconfigurations

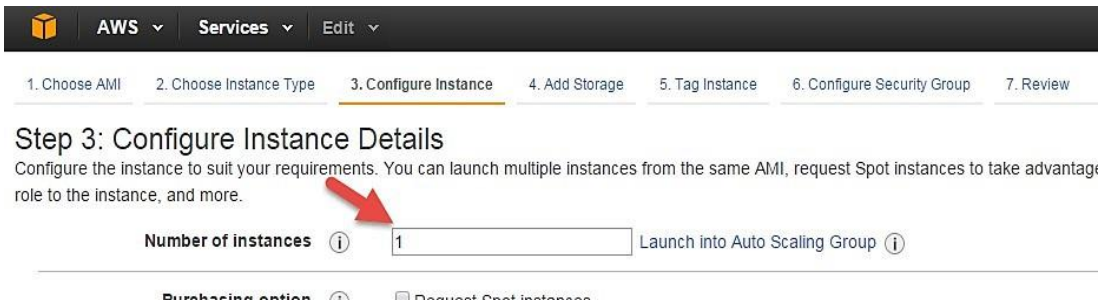


time.

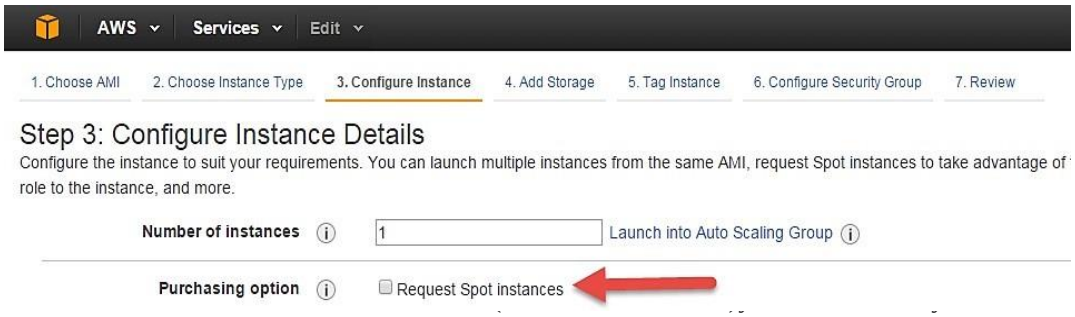
- Herewearelaunchingone

instance.Configure Instance

Step 1) No. of instances-you can provision up to 20 instances at a time. Here we are launchingone instance.



ofnow. (This is done when we wish to launch Spot instances instead of on- demand ones. We will come back to Spot instances in the later part of the tutorial).



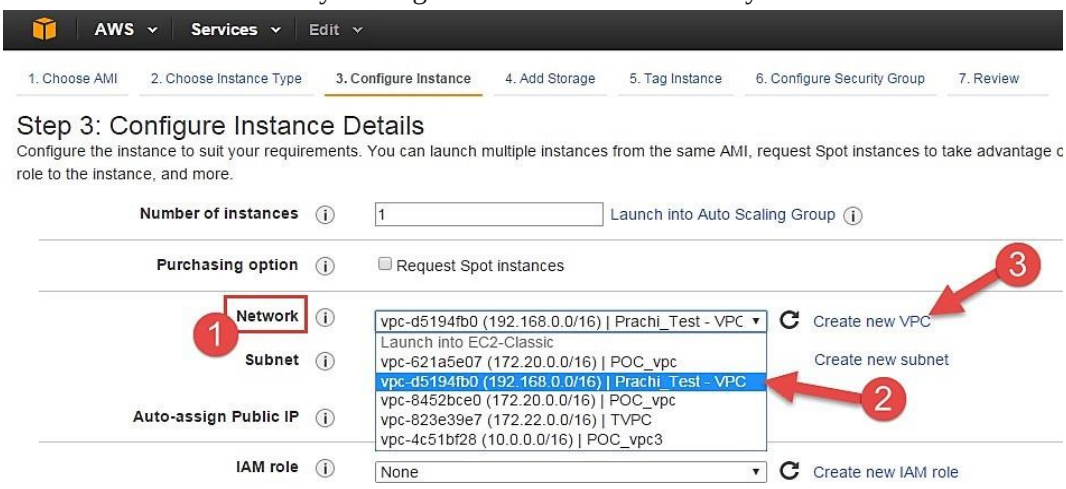
instanceandunderwhichsubnetsinsideyourVPC.Itisbettertodetermineandplanthis prior to launching the instance. Your AWS architecture set-up should include IP ranges for your subnets etc. pre-planned for better management. (We will see how to create a new VPC in Networking section of the tutorial.

- Subnettingshouldalsobepre-planned.E.g.:Ifit'sawebserveryoushouldplaceitinthe public subnet and if it's a DB server, you should place it in a private subnet all inside yourVPC.

Below,

1. NetworksectionwillgivealistofVPCsavailableinourplatform.
2. SelectanalreadyexistingVPC
3. YoucanalsocreateanewVPC

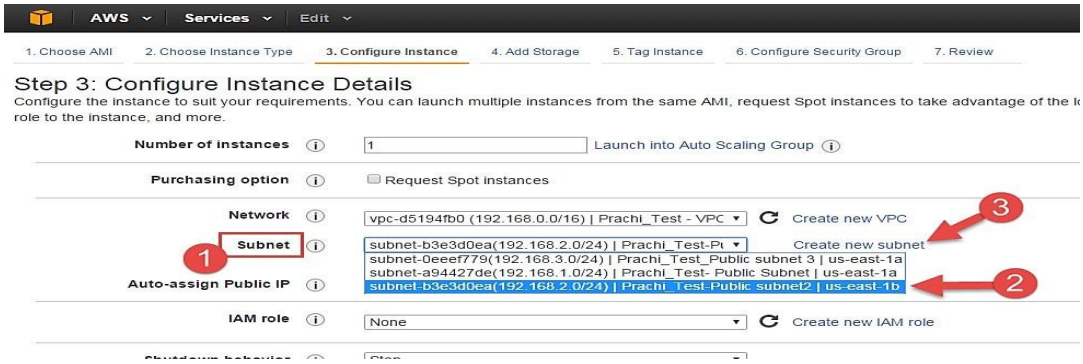
HereIhaveselectedanalreadyexistingVPCwhereIwanttolaunchmyinstance.



Step4)Inthisstep,

- AVPCconsistsofsubnets,whichareIPrangesthatareseparatedforrestrictingaccess.
- Below,

1. Under Subnets, youcanchoosethesubnetwhereyouwanttoplaceyourinstance.
2. Ihavechosenan alreadyexistingpublicsubnet.
3. Youcanalsocreateanewsubnetinthisstep.

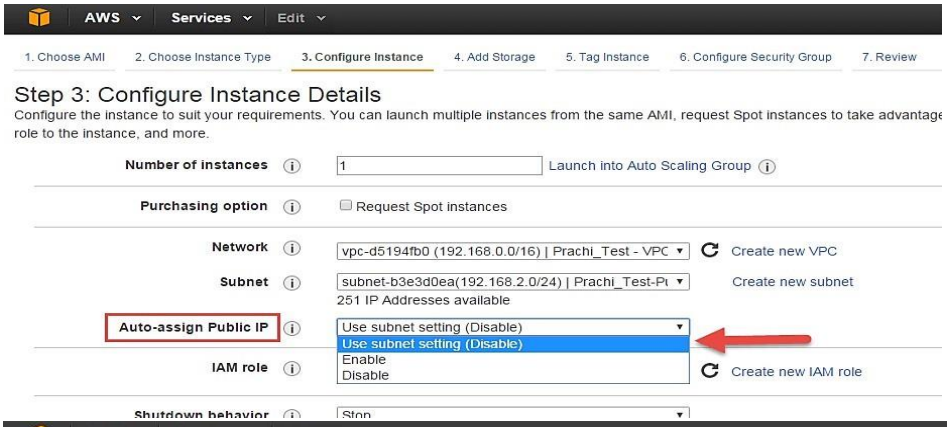


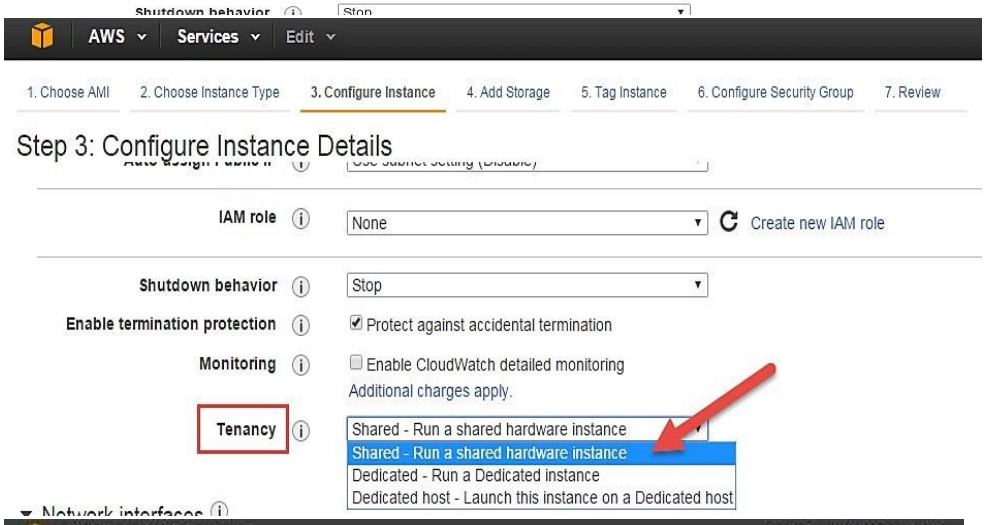
- Onceyourinstanceislaunchedinapublicsubnet,AWSwillassignadynamicpublic IPto it from their pool of IPs.

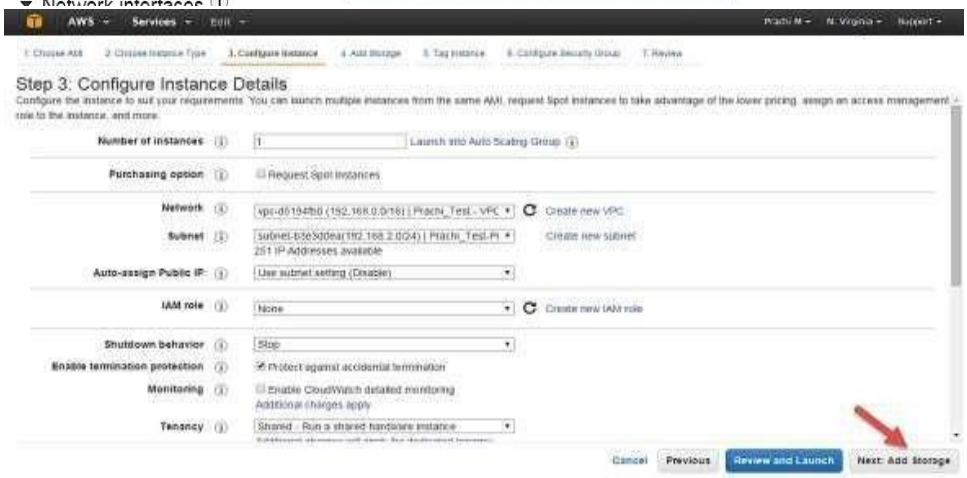
Step5)Inthisstep,

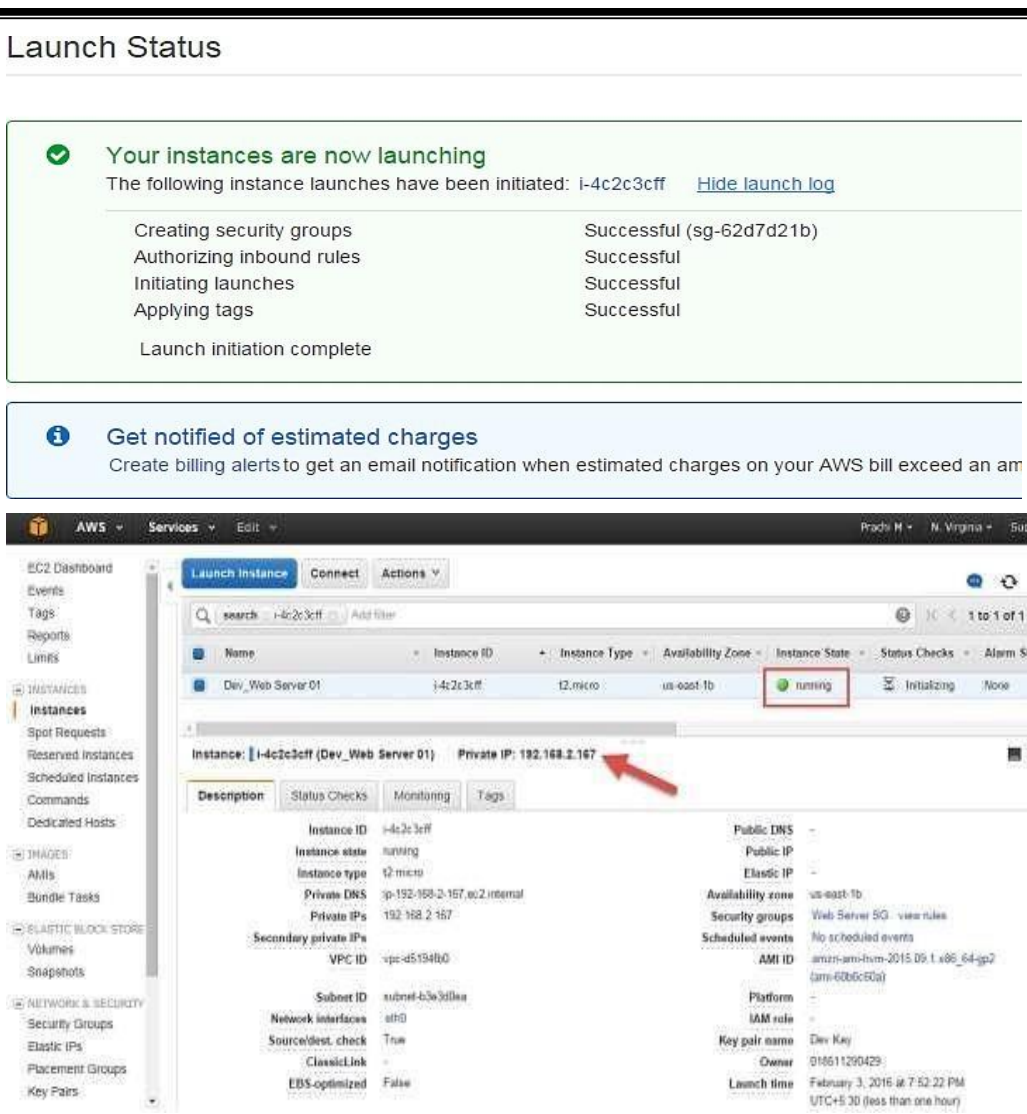
- You can choose if you want AWS to assign it an IP automatically, or you want to do itmanuallylater. Youcanenable/ disable 'Auto assignPublic IP'featureherelikewise.

- Here we are going to assign this instance astatic IP called as EIP (Elastic IP) later. So we keep this feature disabled as of now.


AWS
Services
Edit
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Tag Instance
6. Configure Security Group
7. Review
Step 3: Configure Instance Details
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage
role to the instance, and more.
Number of instances
1
Launch into Auto Scaling Group
Purchasing option
Request Spot instances
Network
vpc-d5194fb0 (192.168.0.0/16) | Prachi_Test - VPC
Create new VPC
Subnet
subnet-b3e3d0ea(192.168.2.0/24) | Prachi_Test-Pt
Create new subnet
251 IP Addresses available
Auto-assign Public IP
Use subnet setting (Disable)
Use subnet setting (Disable)
Enable
Disable
IAM role
Create new IAM role
Shutdown behavior
Stop


AWS
Services
Edit
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Tag Instance
6. Configure Security Group
7. Review
Step 3: Configure Instance Details
IAM role
None
Create new IAM role
Shutdown behavior
Stop
Enable termination protection
Protect against accidental termination
Monitoring
Enable CloudWatch detailed monitoring
Additional charges apply.
Tenancy
Shared - Run a shared hardware instance
Shared - Run a shared hardware instance
Dedicated - Run a Dedicated instance
Dedicated host - Launch this instance on a Dedicated host
Network interfaces


Step 3: Configure Instance Details
Number of instances
Purchasing option
Network
Subnet
Auto-assign Public IP
IAM role
Shutdown behavior
Enable termination protection
Monitoring
Tenancy
Cancel
Previous
Review and Launch
Next: Add Storage



Conclusion:

Thus, we saw in detail how to create an on-demand EC2 instance in this tutorial. Because it is an on-demandserver,youcankeepitrunningwheninuseand'Stop'itwhenit'sunusedtosaveonyour costs

PracticalNo:2

PracticalTitle: InstallationandconfigureGoogleAppEngine.

Objectives:

- TolearnbasicofGoogleAppEngine.
- ToinstallandconfigureGoogleAppEngine.

HardwareRequirements:

- PentiumIVwithlatestconfiguration

SoftwareRequirements:

- Ubuntu20.04,Webapplicationi.e.GoogleAppEngine

Theory:

Introduction

GoogleAppEngineisawebapplicationhostingservice.By"webapplication,"wemeanan applicationorserviceaccessedovertheWeb,usuallywithawebbrowser:storefrontswith shoppingcarts,socialnetworkingsites,multiplayergames,mobileapplications,survey applications, project management, collaboration, publishing, and all the other things we're discoveringaregoodusesfortheWeb.AppEnginecanservetraditionalwebsitecontenttoo, suchasdocumentsandimages,buttheenvironmentisespeciallydesignedforreal-time dynamic applications. Of course, a web browser is merely one kind of client: web application infrastructure is well suited to mobile applications, as well.

Inparticular,GoogleAppEngineisdesignedtohostapplicationswithmany simultaneous users. When an application can serve many simultaneous users without degrading performance,wesayitscales.ApplicationswrittenforAppEnginescaleautomatically.As more people use the application, App Engine allocates more resources for the application and manages the use of those resources. The application itself does not need to know anything about the resources it is using.

The app engine isa Cloud-based platform,isquite comprehensiveandcombines infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS). Theappenginesupportsthedelivery,testinganddevelopmentofsoftwareondemandina Cloud computing environment that supports millions of users and is highly scalable.

The company extends its platform and infrastructure to the Cloud through its app engine.It presents the platform to those who want to develop SaaS solutions at competitive costs .Have youeverwonderedastowhostandstobenefitthemostfromtheGoogleappengine?Ifyouare abusinessSMEorenterprisewhichownsanyweb-basedapplicationthatneedstobescaled

without any compromise on the performance then Google App Engine is a good fit. Companies like Best Buy and Khan Academy have chosen Google AppEngine for their apps.

GoogleAppEngine:

It is a platform-as-a-service (PaaS) Cloud computing platform that is fully managed and uses inbuilt services to run your apps. You can start development almost instantly after downloadingthesoftwaredevelopmentkit(SDK). Youcangoontothedeveloper'sguide rightawaywhen you click on the language you wish to develop your app in.

AssoonasyouhavesignedupforaCloudaccount,youcanbuildyourapp:

- With the template/HTML package in Go
- With Jinja2 and webapp2 in Python
- With CloudSQLinPHP
- With Maven in Java

GenerallyAvailableFeatures

These are covered by the depreciation policy and the service-level agreement of the app engine. Anychangesmadetosuchafeaturearebackward-compatibleandimplementationofsucha featureisusuallystable.Theseincludedatastorage,retrieval,andsearch;communications;process management; computation; app configuration and management.

- Data storage, retrieval, and search include features such as HRD migration tool, Google Cloud SQL, logs, datastore, dedicated Memcache, blobstore, Memcache and search.
- Communications include features such as XMPP. channel, URL fetch, mail, and Google Cloud Endpoints.
- Process management includes features like scheduled tasks and task queue
- Computationincludesimages.
- App management and configuration cover app identity, users, capabilities, traffic splitting, modules,SSLforcustomdomains,modules,remoteaccess,andmultitenancy.

AdvantagesofGoogleAppEngine:

InfrastructureforSecurity

Aroundtheworld,theInternetinfrastructurethatGooglehasisprobablythemostsecure.There is rarely any type of unauthorized access till date as the application data and code are stored in highly secure servers. You can be sure that your app will be available to users worldwide at all times since Google has several hundred servers globally. Google's security and privacy policiesare applicable to the apps developed using Google's infrastructure.

Scalability

For any app's success, this is among the deciding factors. Google creates its own apps using GFS, Big Table andother such technologies, which are available to you whenyou

utilize the Google app engine to create apps. You only have to write the code for the app and Google looks after the testing on account of the automatic scaling feature that the app engine has. Regardless of the amount of data or number of users that your app stores, the app engine can meet your needs by scaling up or down as required.

PerformanceandReliability

Google is among the leaders worldwide among global brands. So, when you discuss performance and reliability you have to keep that in mind. In the past 15 years, the company has created new benchmarks based on its services' and products' performance. The app engine provides the same reliability and performance as any other Google product.

Cost Savings

You don't have to hire engineers to manage your servers or to do that yourself. You can invest the money saved into other parts of your business.

Platform Independence

You can move all your data to another environment without any difficulty as there is not many dependencies on the app engine platform.

Conclusion:

Thus,WehaveinstalledandConfiguredGoogleAppEngine.

Practical No : 3

Practical Title: Creating an Application in SalesForce.com using Apex programming Language

Objectives:

- Tolearnsalesforcecloudadministration
- TocreateapplicationinSalesForce.comusingApexprogramming

HardwareRequirements:

- PentiumIVwithlatestconfiguration

SoftwareRequirements:

- Ubuntu20.04,Webapplicationi.e.salesforce.com

Theory:

WhatisApex?

Apex is a proprietary language developed by the Salesforce.com. As per the official definition, Apexisastronglytyped,object-orientedprogramminglanguagethatallowsdeveloperstoexecute the flowandtransactioncontrol statements onthe Force.com platform server in conjunction with calls to the Force.com API.

IthasaJava-likesyntaxandactslikedatabasestoredprocedures.Itenablesthedeveloperstoadd business logic to most system events, including button clicks, related record updates, and Visual force pages. Apex code can be initiated by Web service requests and from triggers on objects. Apex is included in Performance Edition, Unlimited Edition, Enterprise Edition, and Developer edition.

FeaturesofApexasaLanguage

LetusnowdiscussthefeaturesofApexasaLanguage−

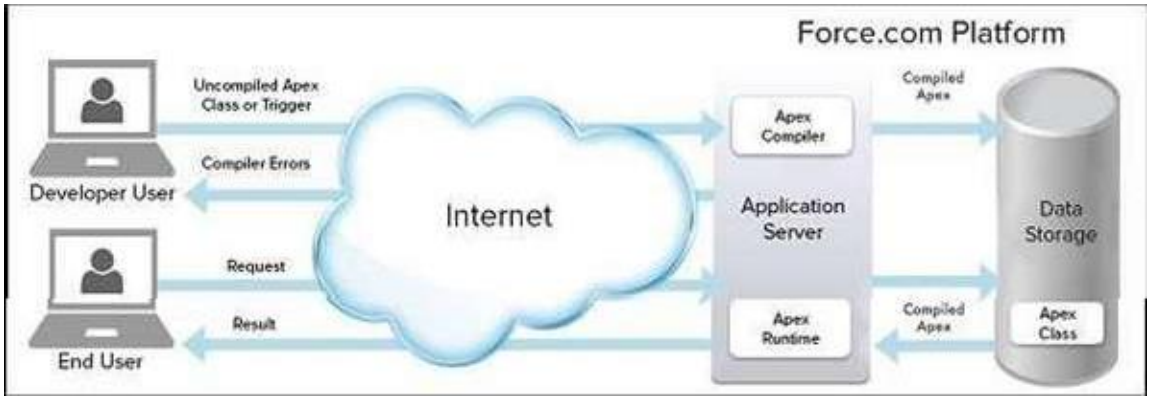
Apex has built in support for DML operations like INSERT, UPDATE, DELETE and also DML Exception handling.It has support for inline SOQL and SOSL query handling which returns theset of sObject records. We will study the sObject, SOQL, SOSL indetail in future chapters.

Javalikesyntaxandeasytouse

Apex is easy to use as it uses the syntax like Java. For example, variable declaration, loop syntax and conditional statements.

StronglyIntegratedWithData

Apex is data focused and designed to execute multiple queries and DML statementstogether.It issues multiple transaction statements on Database cludingtestresultsthat indicate how much codeis covered,and which parts of your code can be more efficien



WhenShouldDeveloperChooseApex?

Apex should be used when we are not able to implement the complex business functionality using the pre-built and existing out of the box functionalities. Below are the cases where we need to use apex over Salesforce configuration.

ApexApplications

WecanuseApexwhenwewantto−

 Create Web services with integrating other systems. Createemailservicesforemailblastor emailsetup.

 Perform complex validation overmultipleobjectsatthesametimeandalsocustomvalidation implementation.

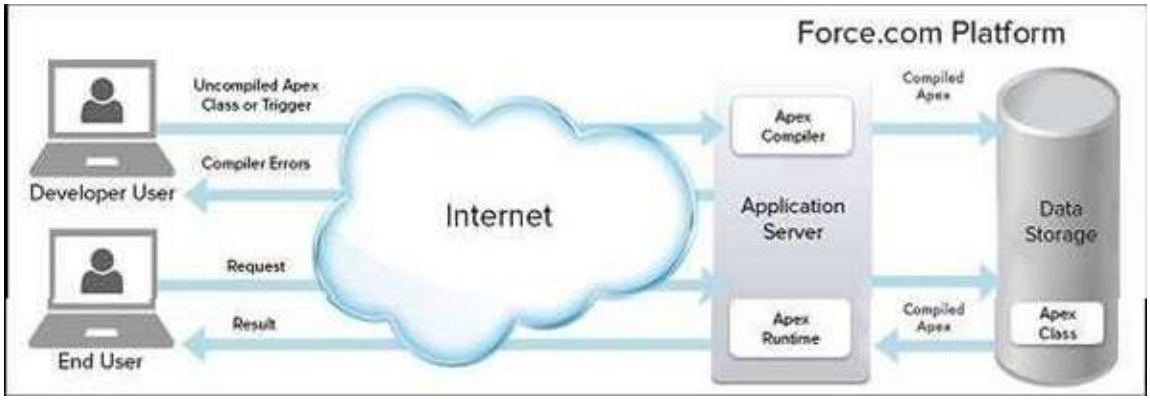
 Create complex business processes that are not supported by existing workflow functionality orflows.

 Create custom transactional logic (logic that occurs over the entire transaction,notjustwitha singlerecordorobject)likeusingtheDatabasemethodsforupdatingtherecords.

 Perform some logic when a record is modified or modify the related object's record when thereissomeeventwhichhascausedthetriggertofire.

WorkingStructureofApex

As shown in the diagram below (Reference: Salesforce Developer Documentation), Apex runs entirely on demand Force.com Platform.



FlowofActions

There are two sequence of actions when the developer saves the code and when an end user performs some action which invokes the Apex code as shown below –

DeveloperAction

When a developer writes and saves Apex code to the platform, the platform application server first compiles the code into a set of instructions that can be understood by the Apex runtime interpreter, and then saves those instructions as metadata.

EndUserAction

Whenanend-usertriggerstheexecutionofApex,byclickingabuttonoraccessingaVisual force page, the platform application server retrieves the compiled instructions from the metadata andsendsthemthroughtheruntimeinterpreterbeforereturningtheresult.Theenduser observes no differences in execution time as compared to the standard application platformrequest.

SinceApexistheproprietarylanguageofSalesforce.com,itdoesnotsupportsomefeatures which a general programming language does. Following are a few features which Apex does not support −

- It cannot show the elements inUserInterface.
- You cannot change the standard SFDC provided functionality and also it is not possible to preventthestandardfunctionalityexecution.
- You cannot change the standard SFDC provided functionality and also it is not possible to preventthestandardfunctionalityexecution.
- Creating multiple threads is also not possible as wecandoitinotherlanguages.

UnderstandingtheApexSyntax

Apexcodetypicallycontainsmanythingsthatwemightbefamiliarwithfromother programming languages.

VariableDeclaration

As strongly typed language, you must declare every variable with data type in Apex. As seen in the code below (screenshot below), lstAcc is declared with data type as Listof Accounts.

SOQLQuery

This will be used to fetch the data from Salesforce database. The query shown in screenshot below is fetching data from Account object.

LoopStatement

Thisloopstatementisusedforiteratingoveralistoriteratingoverapieceofcodefora specifiednumber of times.Inthe code shown in the screenshotbelow, iterationwill be same as thenumberofrecordswehave.

FlowControlStatement

TheIfstatementisusedforflowcontrolinthiscode.Basedoncertaincondition,itisdecided whether to go for execution or to stop the execution of the particular piece of code.Forexample,in the code shown below, it is checking whether the list is empty or it containsrecords.

DMLStatement

Performstherecordsinsert,update,upsert,deleteoperationontherecordsindatabase.For example, the code given below helps in updating Accounts with new field value.

ApexCodeDevelopmentTools

Inalltheeditions,wecanuseanyofthefollowingthreetoolstodevelopthecode−

- Force.com Developer Console
- Force.com IDE
- Code Editor in the Salesforce User Interface

Conclusion:

Thus,WehavecreatedanApplicationinSalesForce.comusingApexprogrammingLanguage.

Reference:https://www.tutorialspoint.com/apex/apex_overview.html

PracticalNo:04

PracticalTitle: DesignanddevelopcustomApplication(MiniProject)usingSalesforceCloud.

Objectives:

- Tolearnsalesforcecloudadministration
- Toinstallandconfigurethesalesforcecloudadministrativefeatures

HardwareRequirements:

- PentiumIVwithlatestconfiguration

SoftwareRequirements:

- Ubuntu20.04,Webapplicationi.e.salesforce.com

Theory:

Introduction

Salesforce.com Inc. is an American cloud-based software company headquartered in San Francisco, California. Though the bulk of its revenue comes from a customer relationship management (CRM) product, Salesforce also sells a complementary suite of enterpriseapplications focused on customer service, marketing automation, analytics and application development.

SalesforceistheprimaryenterpriseofferingwithintheSalesforceplatform.Itprovides companieswithaninterfaceforcasemanagementandtaskmanagement,andasystemforautomatically routing and escalating important events. The Salesforce customer portal provides customers theability totracktheirown cases,includesa socialnetworking plug-inthatenables theusertojointheconversationabouttheircompanyonsocialnetworkingwebsites,provides analytical tools and other services including email alert, Google search, and access to customers' entitlement and contracts.

LightningPlatform

Lightning Platform (also known as Force.com) is a platform as a service (PaaS) that allows developers to create add-on applications that integrate into the main Salesforce.com application. These third-party applications are hosted on Salesforce.com's infrastructure. Force.com applications are built using declarative tools, backed by Lightning and Apex (a proprietary Java-like programming language for Force.com) and Lightning and Visual force (a framework that includes an XML syntax typically used to generate HTML). The Force.com platform typically receivesthreecompletereleasesayear.Astheplatformisprovidedasaservicetoits developers, every single development instance also receives all these updates.

CommunityCloud

Community Cloud provides Salesforce customers the ability to create online web properties for externalcollaboration,customer service,channelsales,andother customportalsItheirinstance of Salesforce. Tightly integrated to Sales Cloud, Service Cloud, and App Cloud, CommunityCloud can be quickly customized to provide a wide variety of web properties Salesforce Sales CloudSalesforceSalesCloudisacustomerrelationshipmanagement(CRM) platformdesigned to support sales, marketing and customer support in both business-to-business (B2B) andbusiness-to-customer (B2C) contexts. Sales Cloud is a fully customizable product that brings allthe customer information together in an integrated platform that incorporates marketing, lead generation, sales, customer service and business analytics and provides access to thousands of applicationsthroughtheAppExchange.TheplatformisprovidedasSoftwareasaService (SaaS) for browser-based access; a mobile app is also available. A realtime social feed for collaboration allows users to share information or ask questions of the user community.Salesforce.com offers five versions of Sales Cloud on a per-user, per month basis,from lowest to highest: Group, Professional, Enterprise, Unlimited and Performance. Thecompany offers three levels of support contracts: Standard Success Plan,Premier SuccessPlanand Premier+ Success Plan.

CreateCustomAppsforSalesforceClassic

Create customapps to giveyour Salesforce Classicusers'access to everything they need all in one place.

If you're new to custom apps, we recommend using Lightning Platform quick start to create an app. With this tool, you can generate a basic working app in just one step.

If you've already created the objects, tabs, and fields you need for your app, follow these steps.Withthisoption,youcreateanapplabelandlogo,additemstotheapp,andassignthe app to profiles.

1. FromSetup,enterAppsintheQuickFindbox,thenselectApps.
2. ClickNew.
3. If the Salesforce console is available, select whether you want to define a custom app or a Salesforce console.
4. Givetheappanameanddescription.

Anappnamecanhaveamaximumof40characters,includingspaces.

5. Optionally,brandyourappbygivingitacustomlogo.
6. Selectwhichitemstoincludeintheapp.
7. Optionally, set the default landing tab for your newappusing the Default LandingTab drop-down menu below the list of selected tabs. This determines the first tab a user sees when logging into this app.

Choosewhichprofilestheappwillbevisibleto.

8. Check the Default box to set the app as that profile's default app, meaning that new users with the profile see this app the first time they log in. Profiles with limits are excluded fromthislist.
9. ClickSave

What is the difference between custom application and console application in sales force? A custom application is a collection of tabs, objects etc that function together to solve aparticular problem.

A console application uses a specific Salesforce UI - the console. Console applications areintendedtoenhanceproductivitybyallowingeverythingtobedonefromasingle,tabbed, screen.

Conclusion:

Thus,Wehavedesignedanddevelopedcustomapplicationusingsalesforcecloud.

PracticalNo:05

PracticalTitle: SetupyourowncloudforSoftwareasaService(SaaS)overtheexisting LAN in your laboratory. In this assignment you have to write your own code for cloudcontroller using open-source technologies to implement with HDFS. Implement the basic operationsmaybeliketodividethefileinsegments/blocksandupload/downloadfile on/from cloud in encrypted form.

Objectives:

- TosetyourowncloudforSaaSoverexistingLAN
- Toimplementthebasicoperationsmaybeliketodividethefileinsegments/blocks

HardwareRequirements:

- PentiumIVwithlatestconfiguration

SoftwareRequirements:

- Ubuntu20.04,VMwareESXicloud

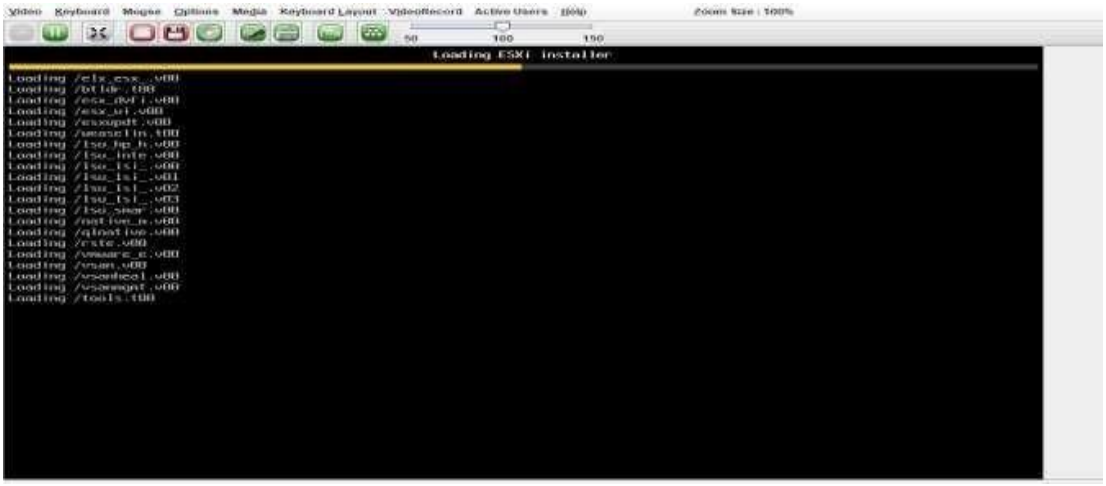
Theory:

HereweareinstallingVMwareESXicloud

- Host/NodeESXiinstallation:-
- **ESXiHardwareRequirements:-**

- ESXi6.7requiresahostmachinewithatleasttwoCPUcores.
- ESXi6.7supports64-bitx86processors
- ESXi6.7requirestheNX/XDbittobeenabledfortheCPUintheBIOS.
- ESXi6.7requiresaminimumof4GBofphysicalRAM.Itisrecommended to provide atleast 8 GB of RAM to run virtual machines in typical productionenvironments.
- Tosupport64-bitvirtualmachines,supportforhardwarevirtualization (IntelVT-xorAMDRVI)mustbeenabledonx64CPUs.
- Oneor moreGigabit or fasterEthernet controllers. For alist of supportednetwork adapter models.
- SCSIdiskoralocal,non-network,RAIDLUNwithunpartitionedspacefor thevirtualmachines.

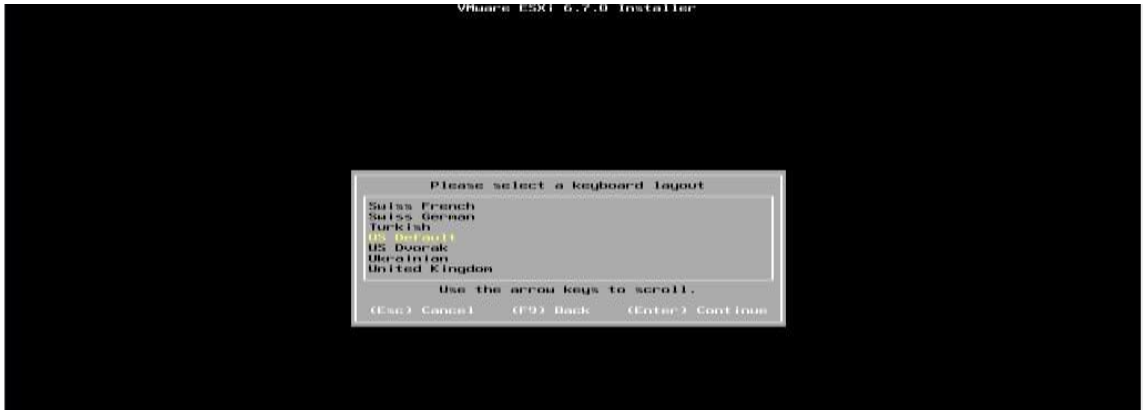
ForSerialATA(SATA), a disk connected through supported SAS controller or supportedon board SATA controllers.SATAdisksareconsideredremotenotlocal.Thesedisksarenotusedasascratch partition by default be cause they are seen as remote.



ESXiInstaller:

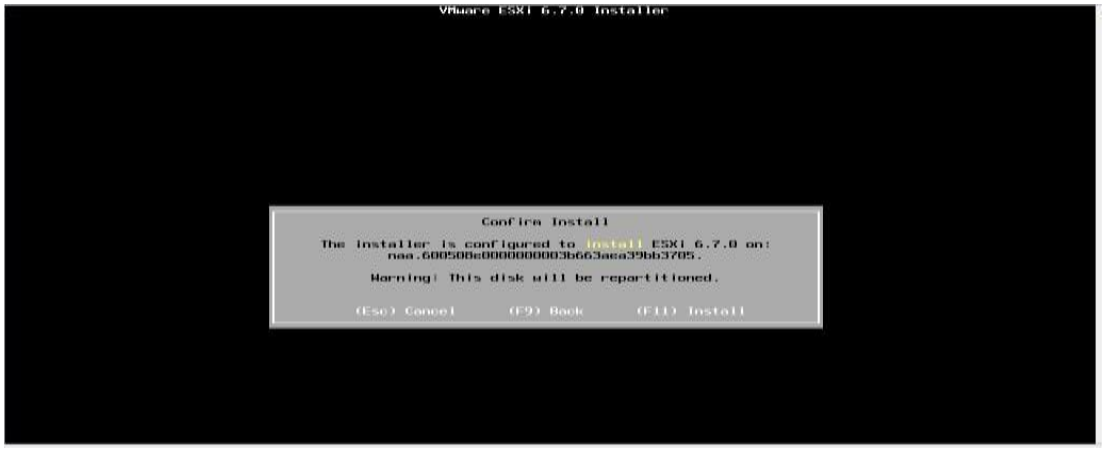
AcceptAgreement:

Selectstorage:

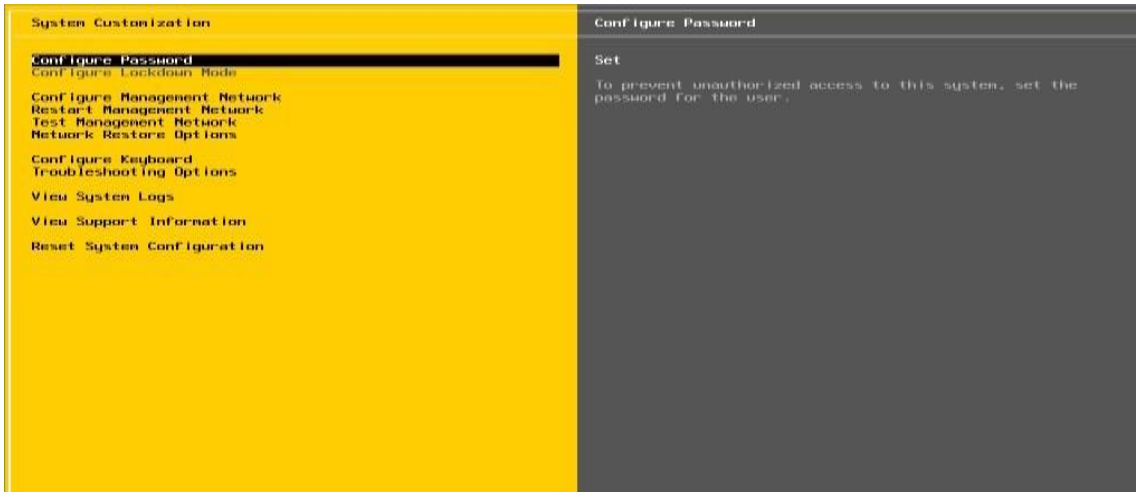


SelectKeyboardLayout:

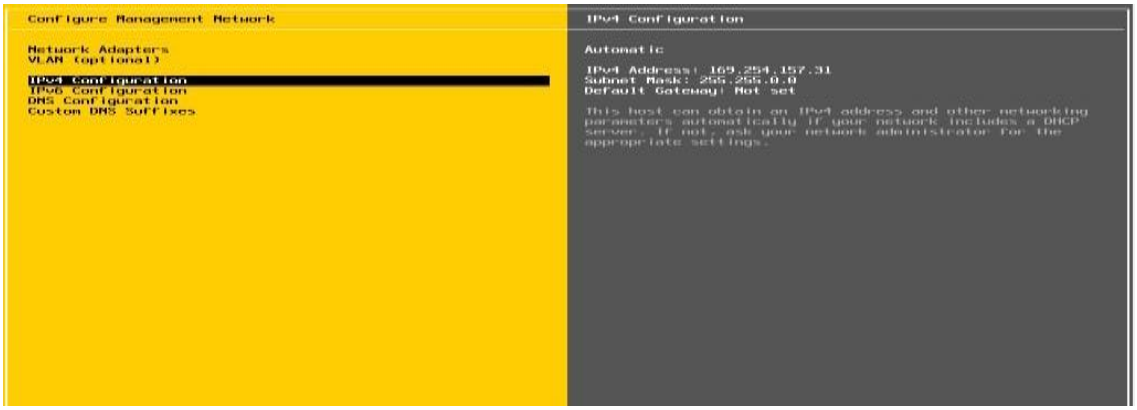
SetNodeESXiRootPassword:



Installation complete(Reboot)CLIIinterfacetoconfiguration

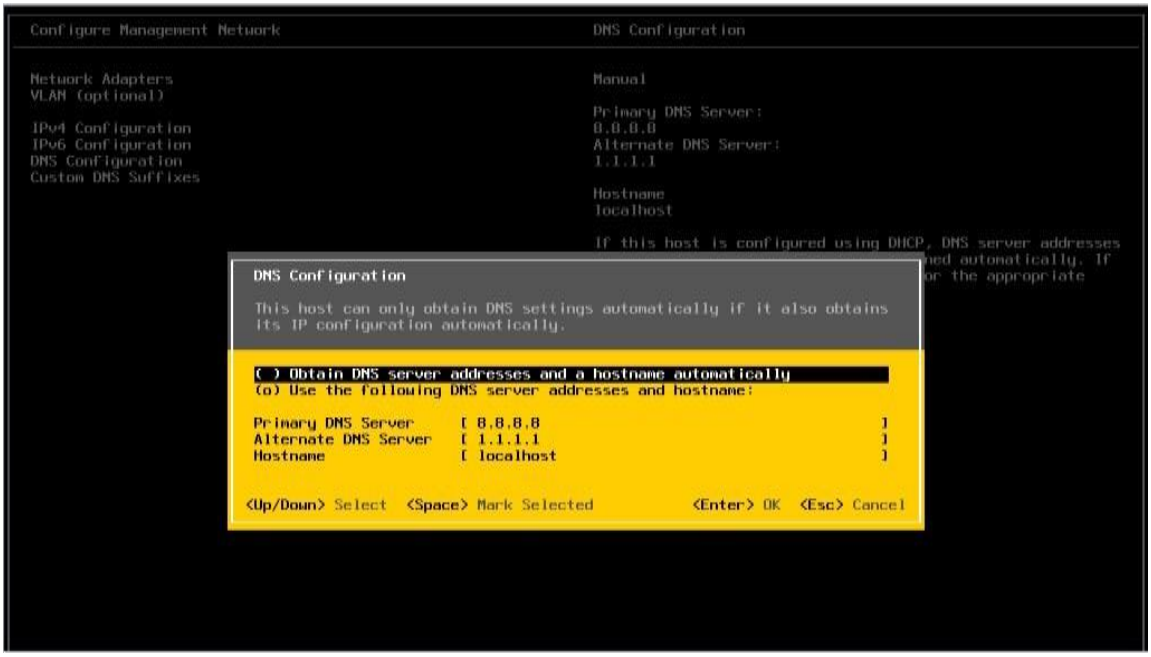


CLIInterfacetoConfiguration:



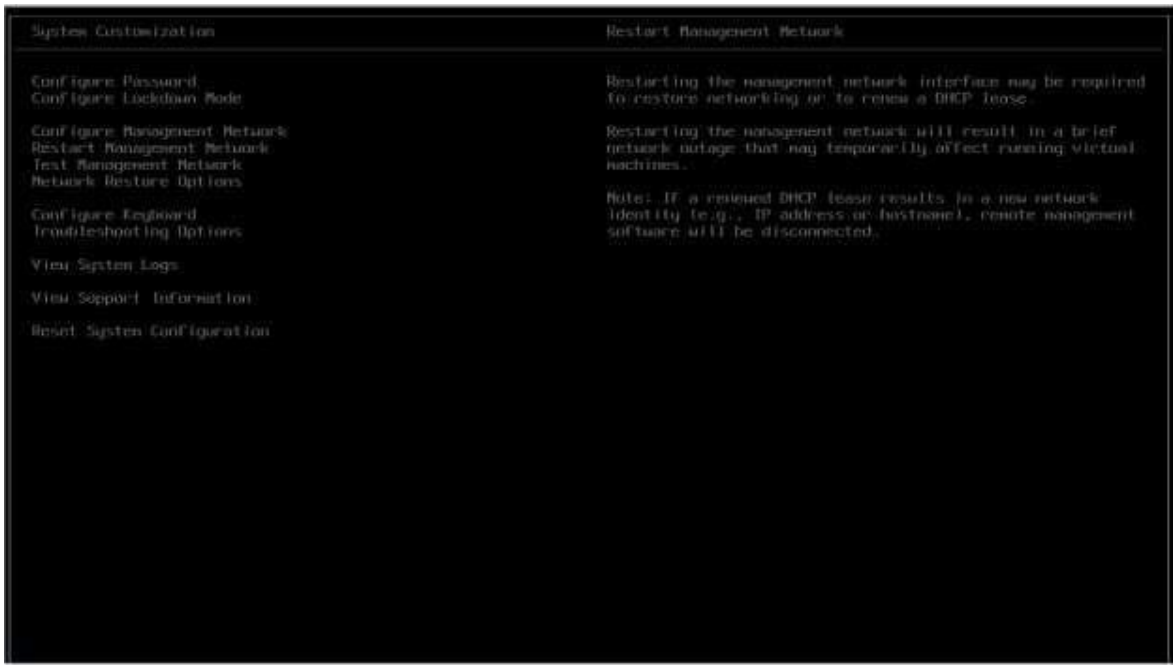
ConfigureManagementNetwork

SetIPV4



SetDNSeriver:

RestartManagementNetwork

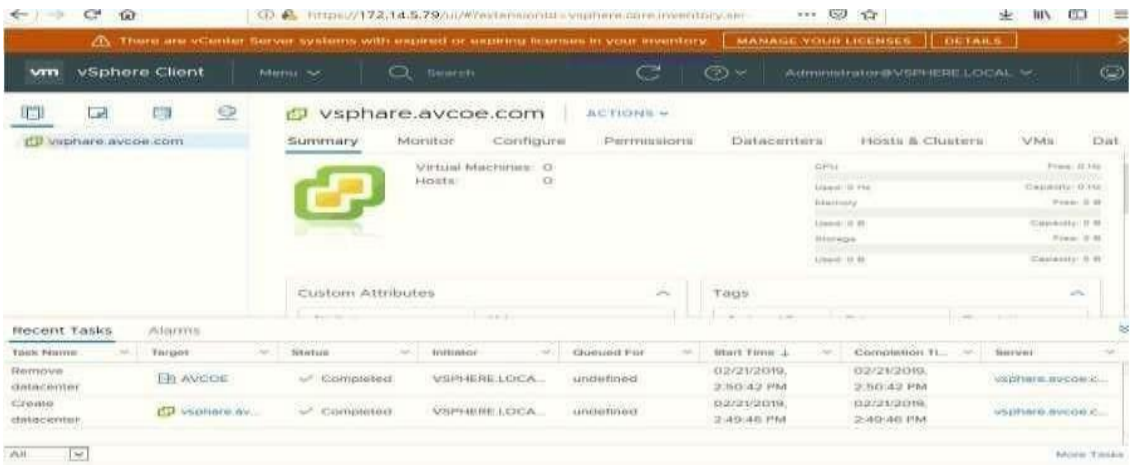


GUIAccess:

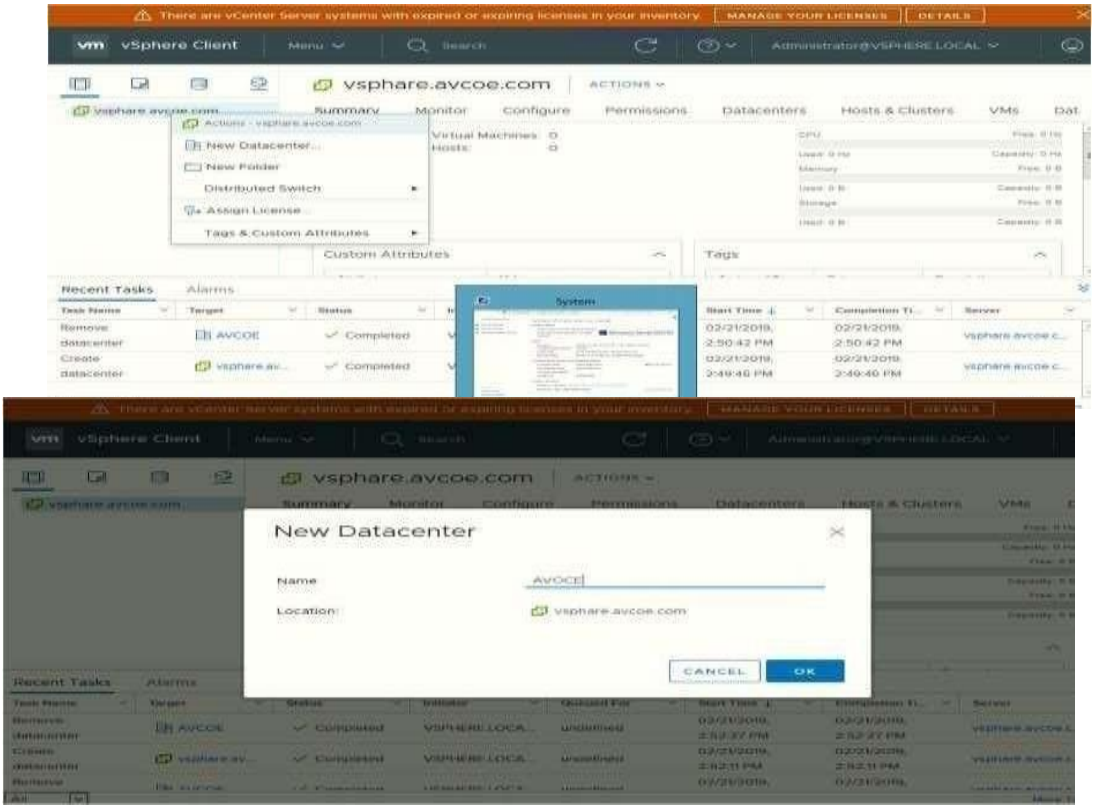
ClusterSetup

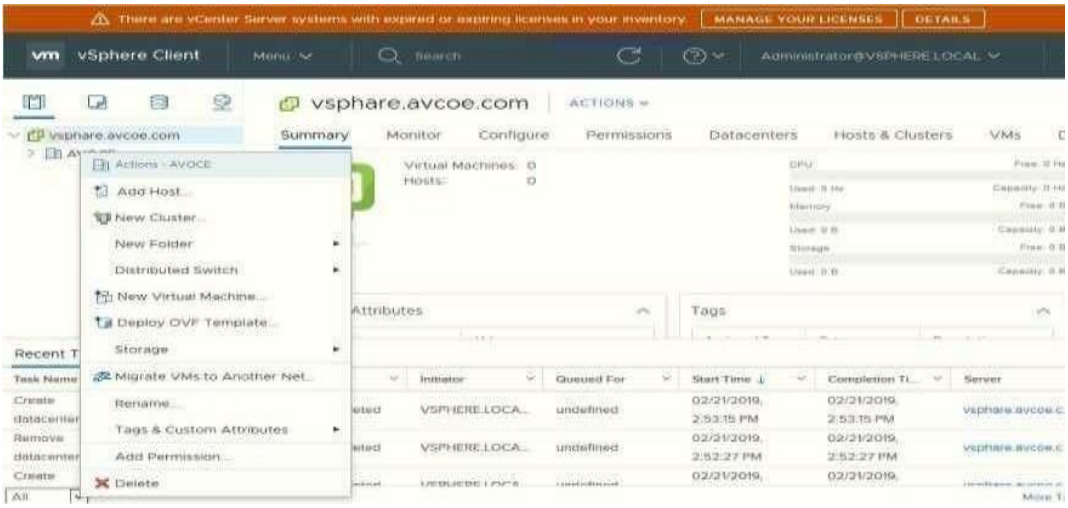
- **CreatingDatacenter**
- **CreatingCluster**
- **AddingHostsincluster**
- **Resourcesafteraddingcluster.**
- **DRS**
- **Failover**

VCenterAccess:



CreateDatacenter:

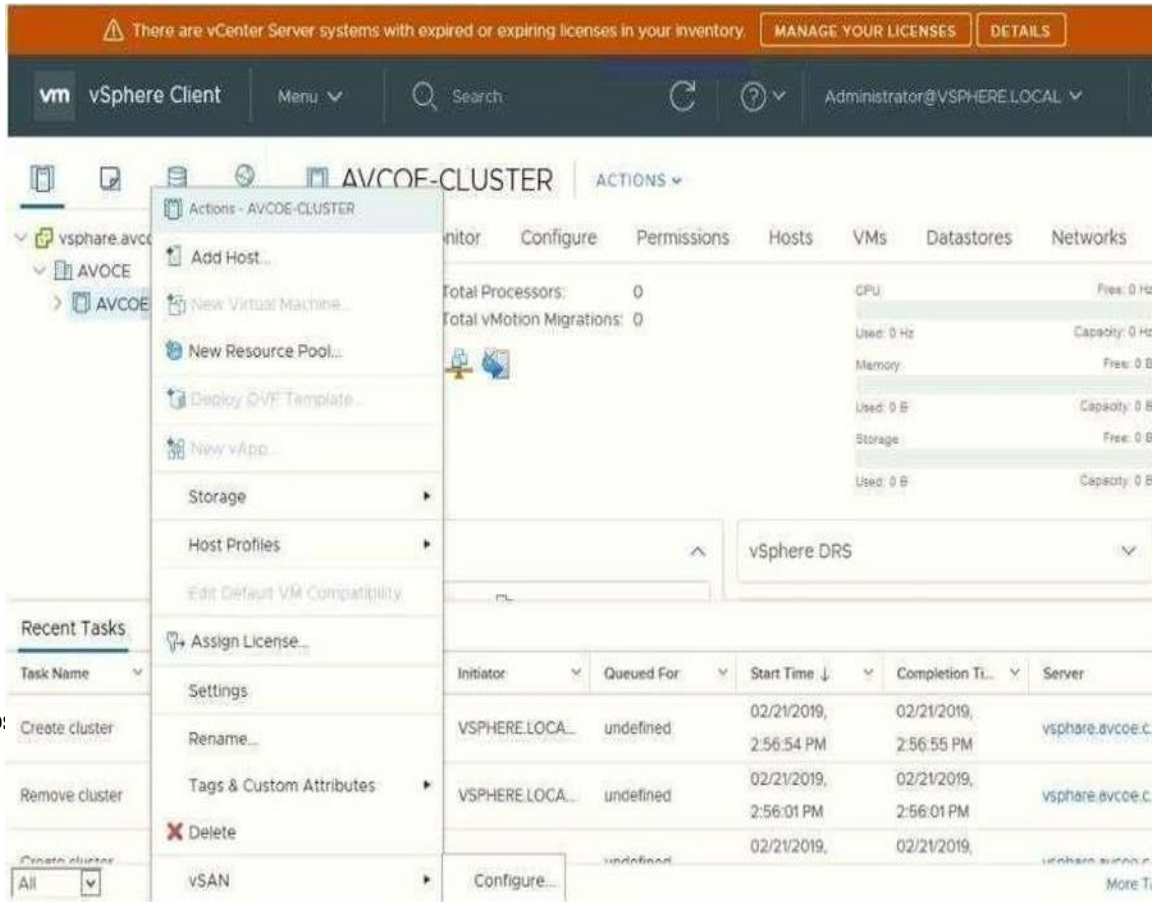




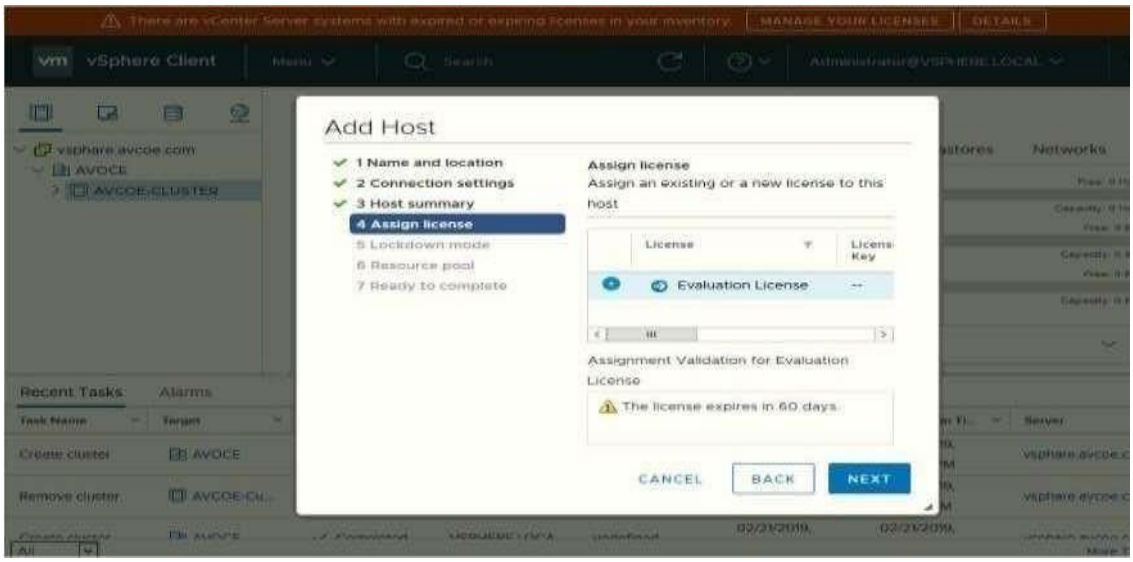
Createcluster:

Assignclustername:

Addhost.:



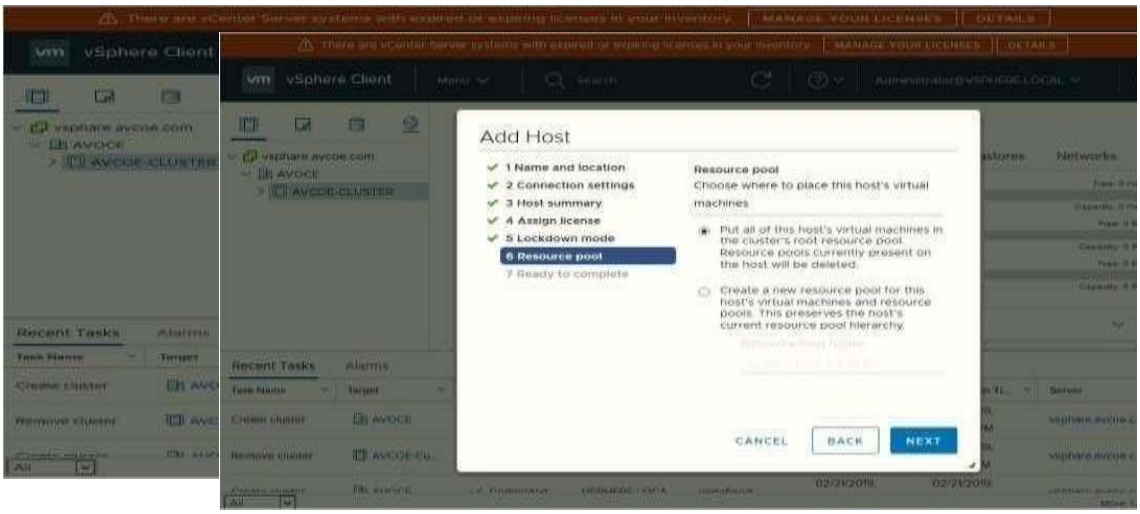
Enterhos



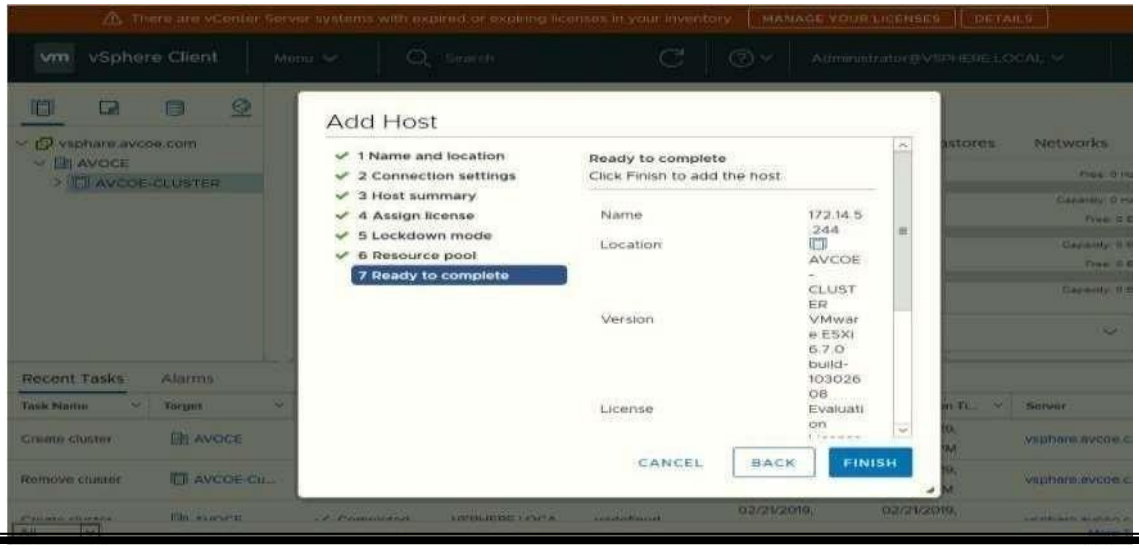
Hot summary :

LockDownmode:

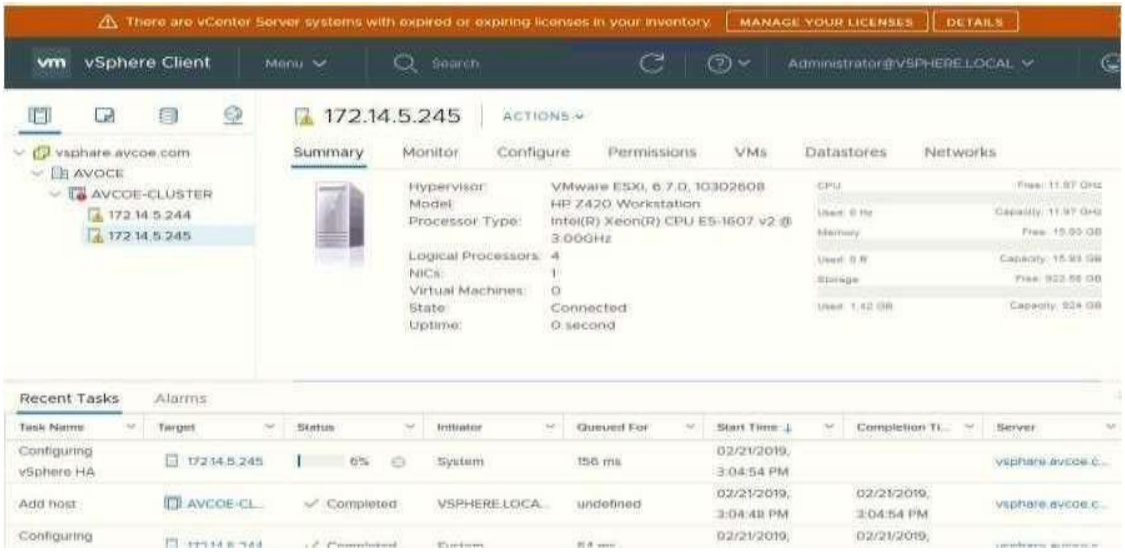
AddHostInPool:

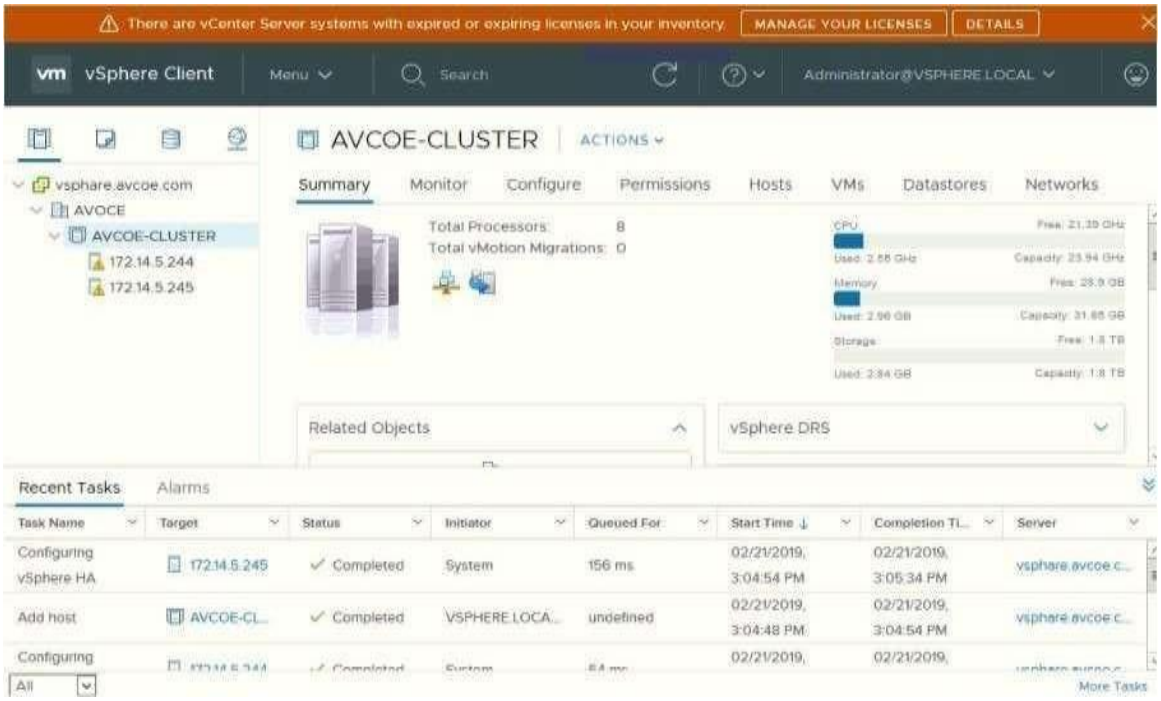


Finish:



ClusterViewandConfiguration:





Conclusion: LikethiswehaveconfigureVSpherePrivateCloud