SLIIT

SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

Enterprise Standards and Best Practices for IT Infrastructure

4th Year 1nd Semester 2016 (June Intake)

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SLIIT ID: IT13113100	
Group Number: -	
Practical Session: WD	
Practical Number : Lab 1,2,3	
Date of Submission: 30/07/2016	
Date of Evaluation :	
Evaluators Signature :	

What is amazon EC2

Amazon is an elastic compute cloud which provides resizable compute capacity in the cloud. It makes easier for developers by providing complete control of computing resources and programs run on Amazon's proven computing environment. Amazon EC2 also can reduce the time required to obtain and boot new instance, allow quick scalability.

Amazon EC2 also provides inexpensive, easy to start, reliable and secure service for developers.

Create amazon account

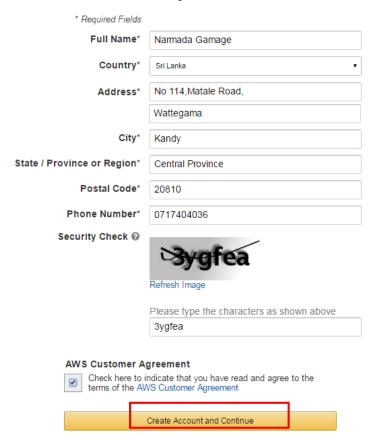
Login Credentials

Step 1 –Provide logging credentials after selecting the "I am a new user" from sign in or create an AWS account window. Then press create account option

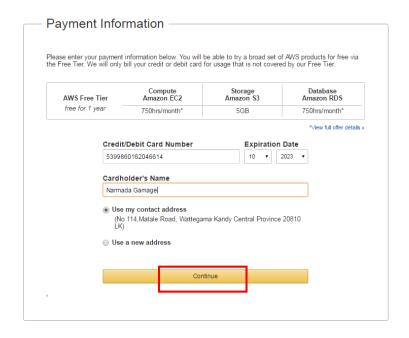
Create account

Use the form below to create login credentials that can be used for AWS as well as Amazon.com. My name is: Narmada Gamage My e-mail address is: narmadadg@gmail.com Type it again: narmadadg@gmail.com note: this is the e-mail address that we will use to contact you about your account Enter a new password: Type it again:

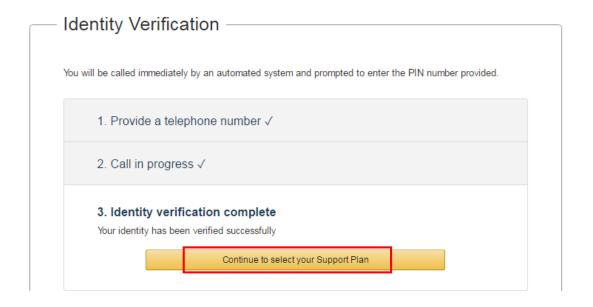
Step 2 -Provide contact information and press "create account and continue" button



Step 3 – Provide proper payment information for verify account as a real one and press "continue" button.



Step 4 – To verify the account creation type PIN number display on screen, using mobile phone after getting automated call from amazon.com. After identity verification complete press "continue to select support plan" button



Step 5 – Select support plan as "Basic" and press "continue" button. Now the account is successfully created.

Welcome to Amazon Web Services

Thank you for creating an Amazon Web Services account. We are activating your account, which should only take a few minutes. You will receive an email when this is complete.

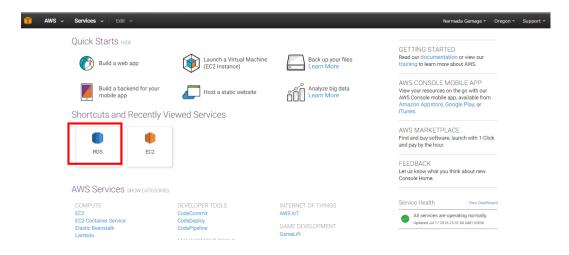


Create AWS windows instance

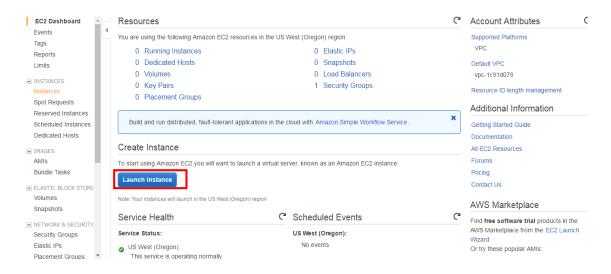
Step 1 – Sign in to the AWS console by providing user name (email address) and pass word.

Ŷ	amazon web services
S	ign In or Create an AWS Account
w	hat is your email (phone for mobile accounts)?
E-ı	mail or mobile number:
na	armadadg@gmail.com
	I am a new user.
•	I am a returning user and my password is:
	•••••
	Sign in using our secure server
	Forgot your password?

Step 2 – Select "EC2" from AWS services – "Compute" category

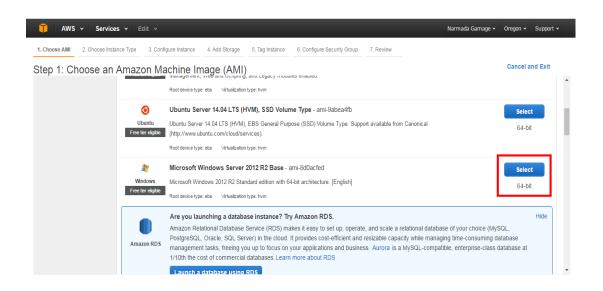


It shows resource window of EC2 where it don't have any running instances

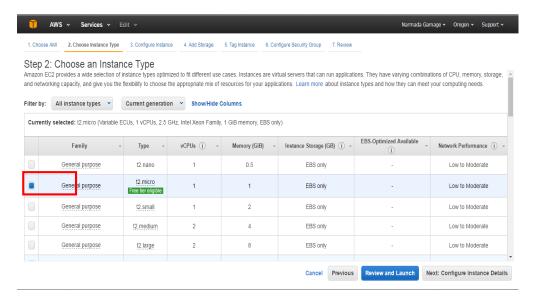


Step 3 – Press "Launch instance" button to create new instance.

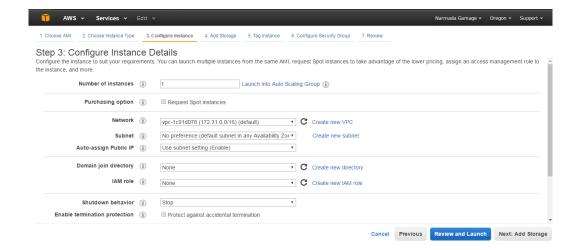
Step 4 - Choose "Microsoft windows server R2 base" option from list of Amazon machine image to create windows instance



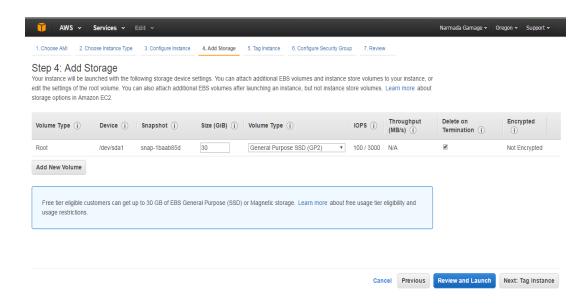
Step 5 - Choose instance type as "t2 Micro" (Free tier eligible) for create general purpose instance and press "next" option



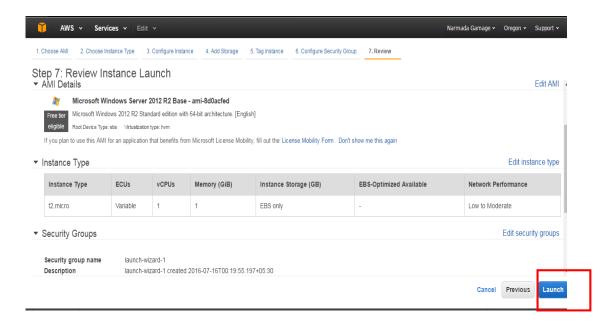
Step 6- Provide configuration details for the instance which user required and press "Next" option



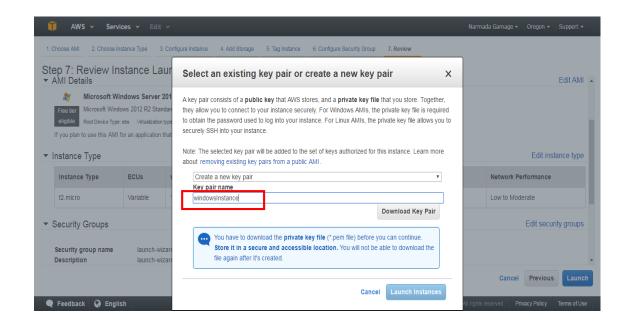
Step 7 – Add storage option is for add additional storage for the newly creating instance or for edit the settings of root volume. Since it is a general purpose instance without changing default values select "Review and launch" option



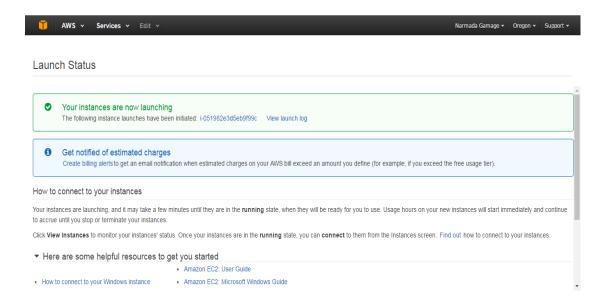
Step 8 - Screen prompts a form with instance details. Using that window user can edit instance type or directly launch the instance



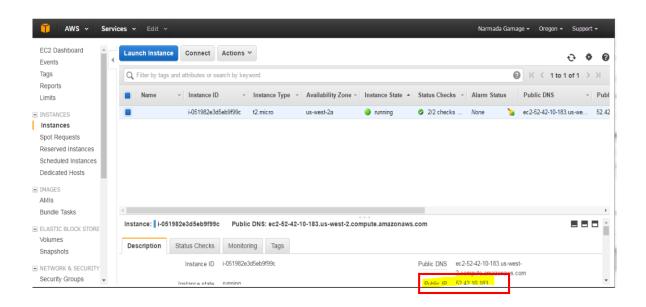
Step 9 – To launch the instance it required a key pair for security purpose. By providing new key pair name user can download key pair by pressing "Download key pair" button



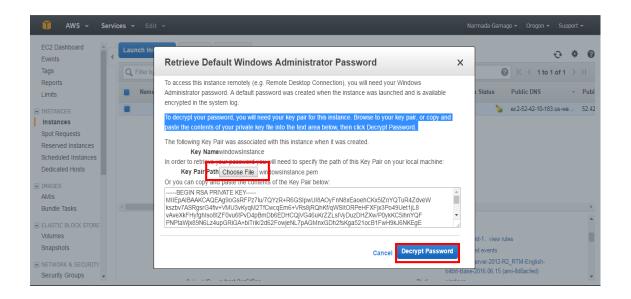
Step 10 – Users would get a notification on successful launching of windows instance. To view the instance details press "View instance" button



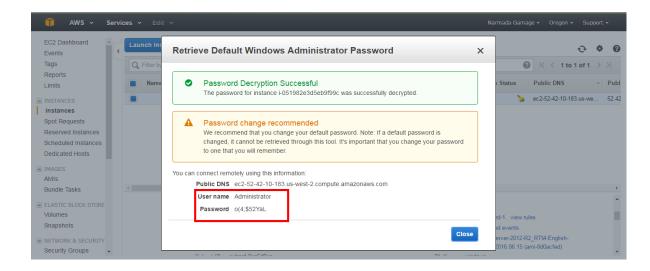
Step 11 – Now user can see the details of created instance. Instance status would be running. To connect secure with the cloud server it required windows password. To obtain that right click on created instance and select "Get windows password" option.(Copy the highlighted public key for connect to remote desktop)



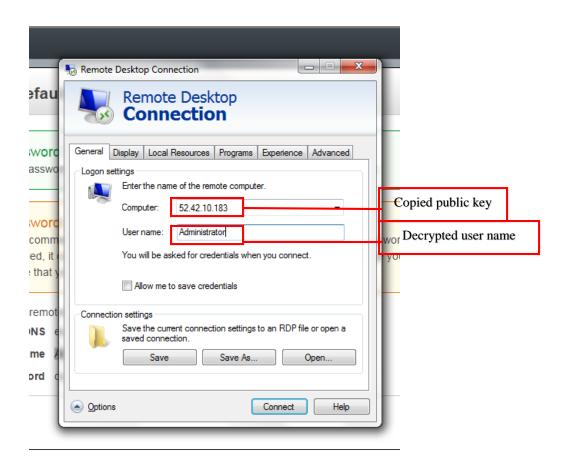
Step 12 - To retrieve default windows administrator password, open the downloaded key pair in step 9. It will open to the text field at the bottom of the message box. Since the key is encrypted to have high security user need to decrypt it.



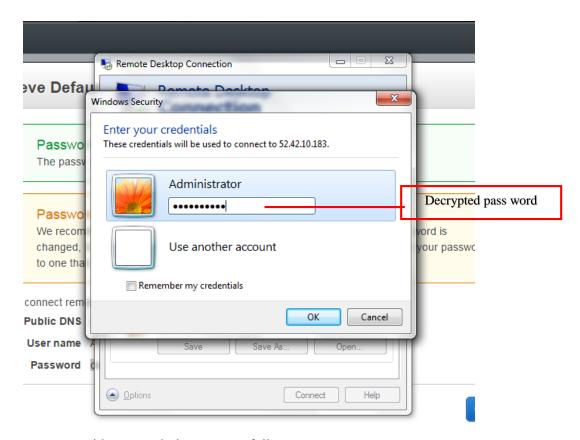
Users can see the notification below after a successful key decryption. It contains User name and password for logging to the remote computer.



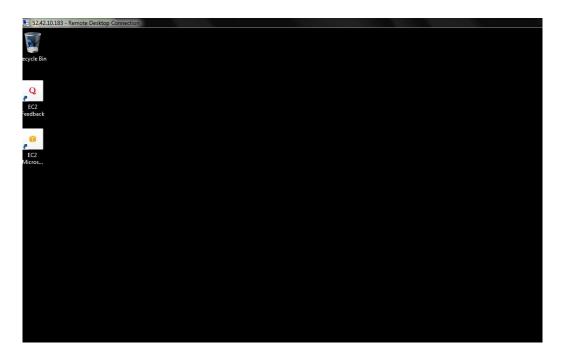
Step 13 – Open the remote desktop connection on users PC. Paste the public id which is copied at step 11, as name of the remote computer. Use the user name obtain by decrypting key pair to establish the connection and press "Connect" button



Now the system prompts a message box to enter password which obtains by decrypting windows key

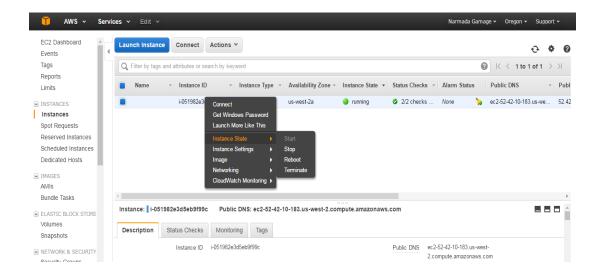


Now the user can connect with remote desktop successfully.



Now we can install any software on windows instance like MS office package, MySQL, Visual studio to do development in remote environment.

Terminate the current running instance by right click on instance and select instance status in to terminate

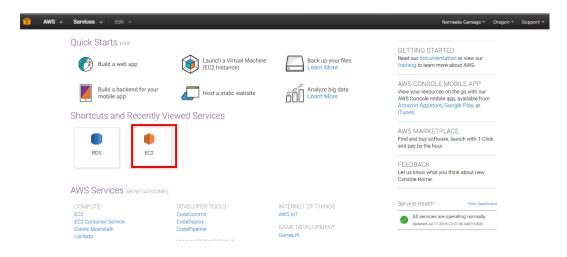


Create Linux instance

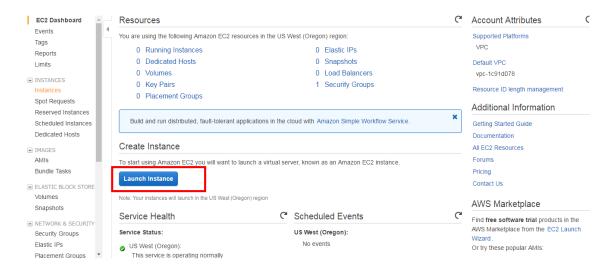
Step 1 – Sign in to the AWS console by providing user name (email address) and pass word.

Ŷ	amazon web services
S	ign In or Create an AWS Account
w	hat is your email (phone for mobile accounts)?
E-ı	mail or mobile number:
na	armadadg@gmail.com
	I am a new user.
•	I am a returning user and my password is:
	••••••
	Sign in using our secure server
	Forgot your password?

Step 2 – Select "EC2" from AWS services – "Compute" category

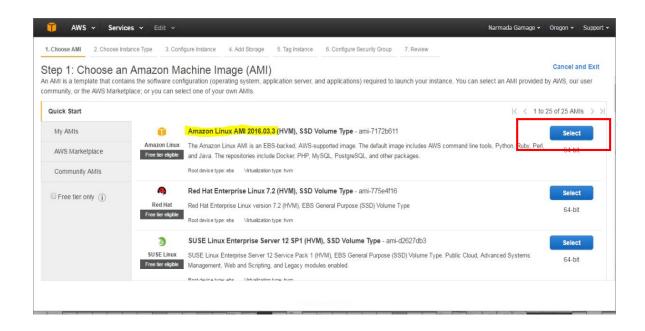


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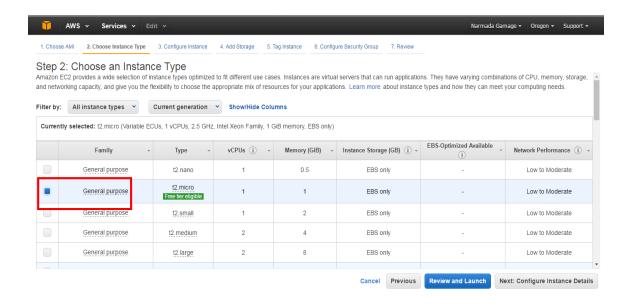


Step 3 – Press "Launch instance" button to create new instance.

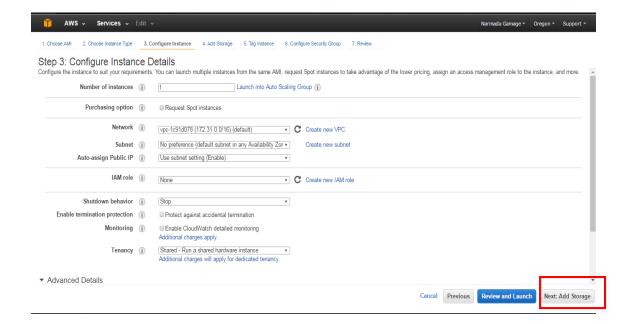
Step 4 - Choose "Amazon Linux AMI 2016.03.3" option from list of Amazon machine image to create Linux instance



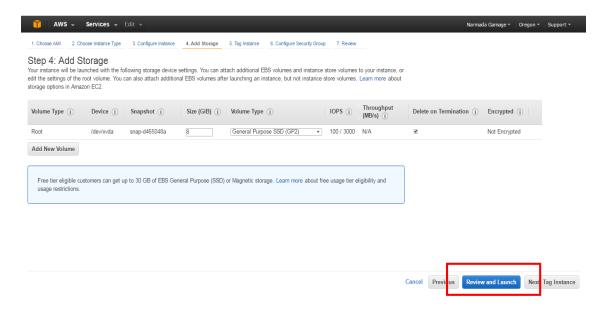
Step 5 - Choose instance type as "t2 Micro" (Free tier eligible) for create general purpose instance and press "next" option



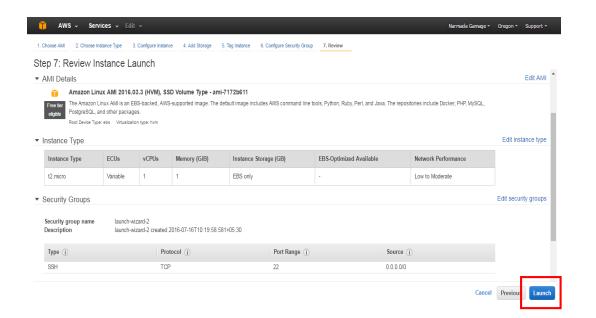
Step 6 - Provide configuration details for the instance which user required and press "Next" option



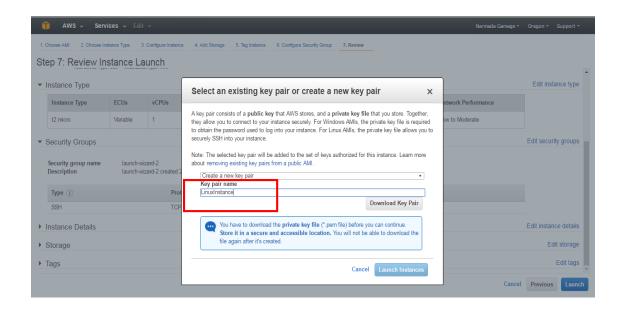
Step 7 – Add storage option is for add additional storage for the newly creating instance or for edit the settings of root volume. Since it is a general purpose instance without changing default values select "Review and launch" option.



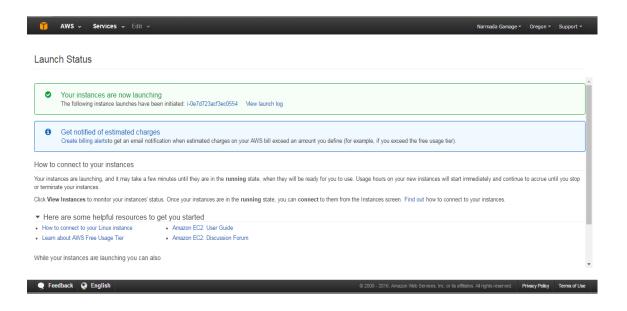
Screen prompts a form with instance details. Using that window user can edit instance type or directly launch the instance



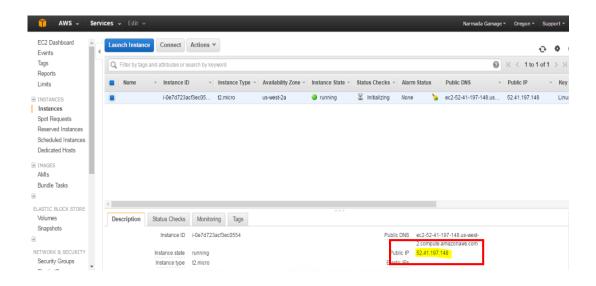
Step 8 – To launch the instance it required a key pair for security purpose. By providing new key pair name user can download key pair by pressing "Download key pair" button



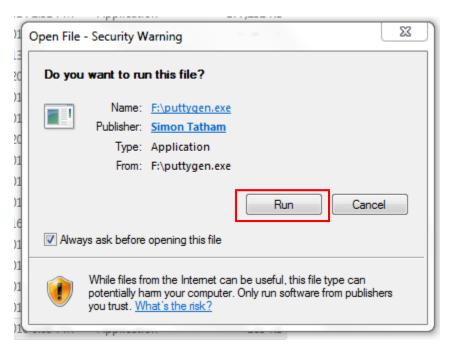
Step 9 – Users would get a notification on successful launching of windows instance. To view the instance details press "View instance" button



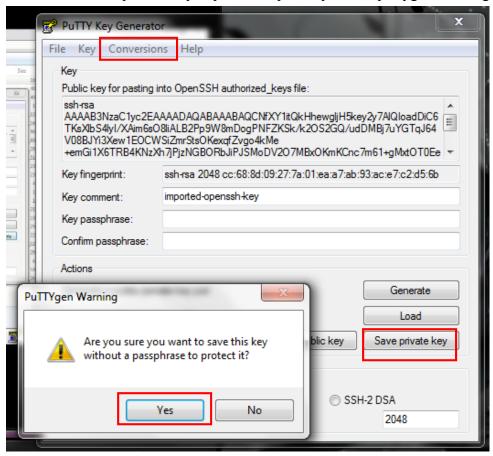
Step 10 – Now user can see the details of created instance. Instance status would be running. To connect secure with the cloud server it required windows password. To obtain that right click on created instance and select "Get windows password" option.(Copy the highlighted public key for connect to remote desktop)



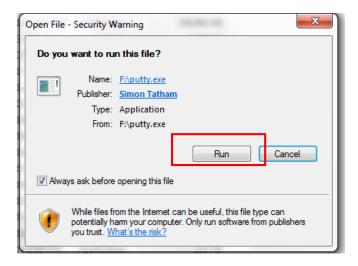
Step 11 - To convert downloaded key file to make it compatible with putty, run "puttygen" software



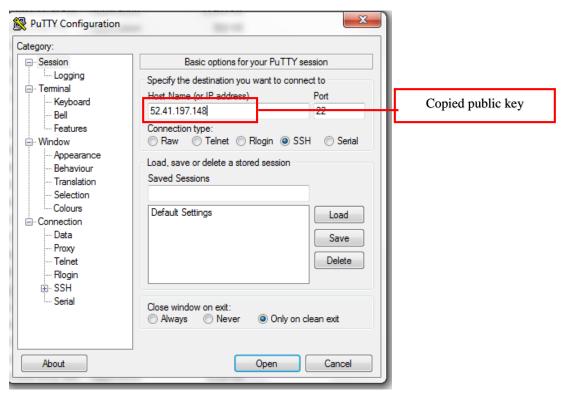
- **Step 12** Select "conversation" tab of Puttygen.
 - Select "import key" of conversation tab and import the key pair which downloaded into user's PC in step 8
 - Select" save private key" option and press "yes" on puttygen warning message



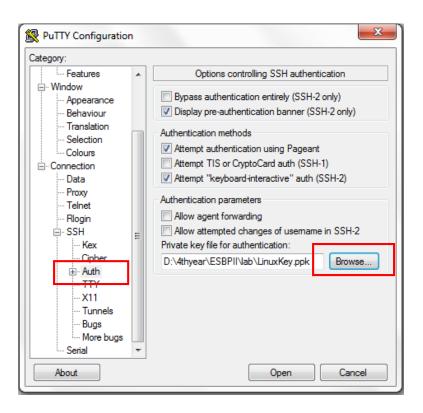
Step 13 – Run "Putty" software for process the private key



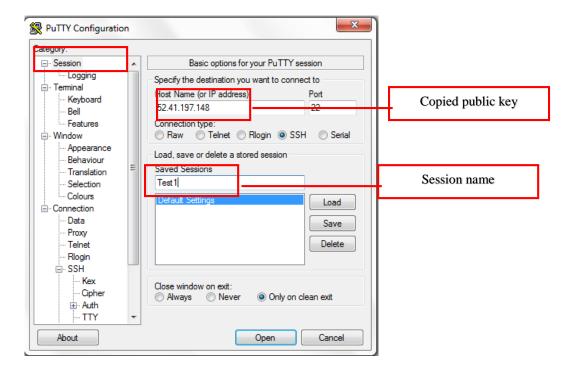
Step 14 – Paste the Public id copied at Step 10 as host name in "Putty configuration" prompt



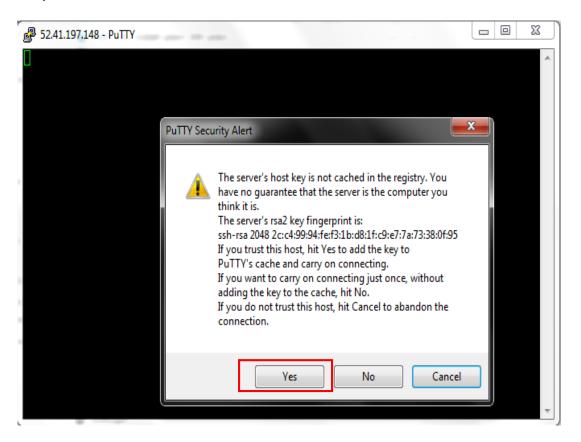
Step 15 - Select "SSH" option from "Connection" category and press on "Auth". Then browse and load converted key pair using "Puttygen"



Step 16 – Go to "Session" category and save the session by providing suitable name



Step 17 - Now user can see command prompt of created Linux instance in remote machine. Press "Yes" to "Putty security alert"

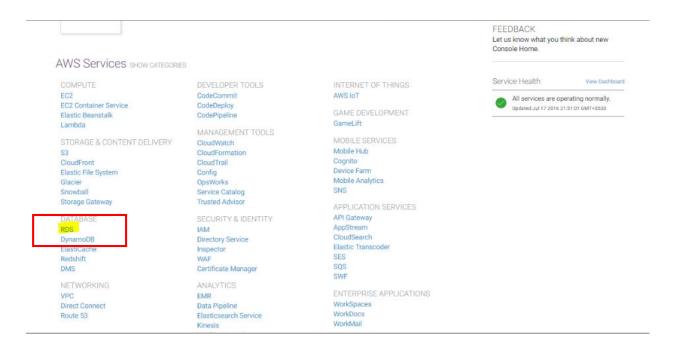


Step 18 – Logging to the remote Linux instance by logging as "ec2-user"

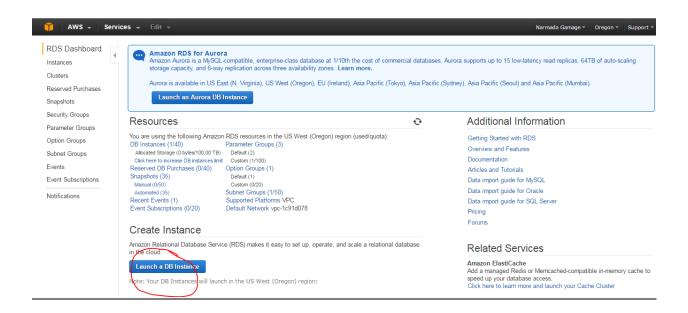
Now user can provide Linux commands to work on Linux instance

Create RDB instance

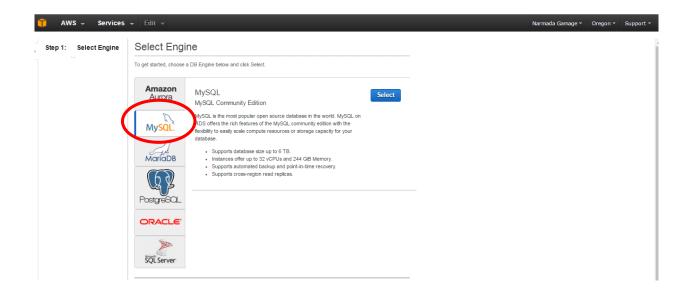
Step 1 – Select RDS of database category from Amazon dashboard



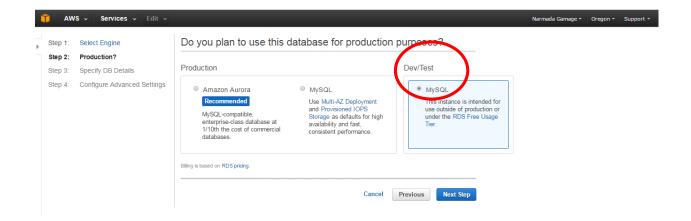
Step2- Select instance and click on "Launch DB" to create new database instance



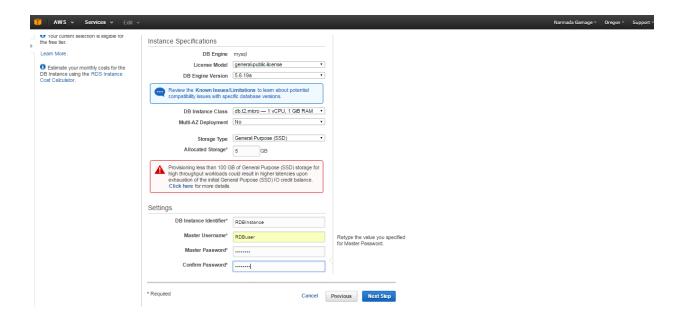
Step 3- Select engine as "MySQL"



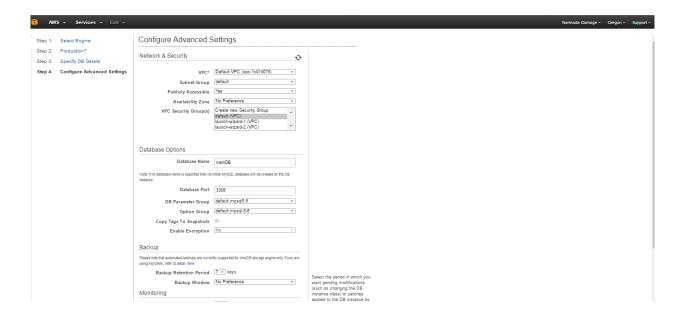
Step 4- Select production as MySQL RDS free usage tier and press "Next"



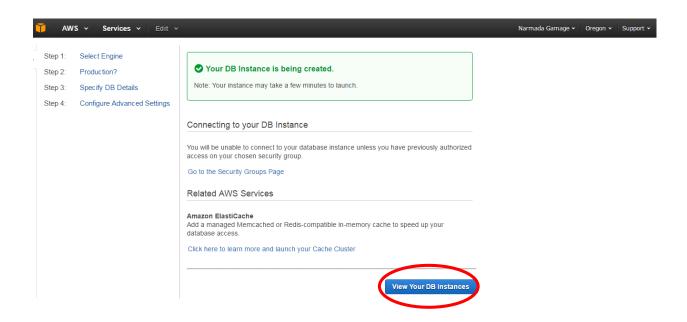
Step 5 - Specify DB details as user want and click on "Next" button



Step 6 – Configure Advanced settings of the instance and launch the RDS



Step 7 – Users would get a notification on successful launching of database instance. To view the instance details press "View instance" button



Now user can view the details of created database instance. Right click on instance and copy the end point from it. Then open the work bench

- **Step 8** Paste copied end point as host name and provide name user entered at "Specify DB" as the Username. And press "Test connection". If it successful RDS is created properly.
 - -User can perform any database related action using created database (Create data base, insert data into database, execute queries etc.)

