



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

**Enterprise Standards and Best Practices for IT Infrastructure**

**4<sup>th</sup> Year 2<sup>nd</sup> Semester 2016**

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Practical Session: WE Monday

Practical Number: Lab 1, Lab 2, Lab 3

Date of Submission: 30/07/2016

Date of Evaluation : \_\_\_\_\_

Evaluators Signature : \_\_\_\_\_

# Creating an Amazon EBS - Backed Windows AMI

## Step 01

Select EC2 web service (virtual server in cloud) from Amazon web servers.

The screenshot shows the AWS Management Console homepage. The top navigation bar includes links for AWS, Services, Edit, and Support, along with user information for Dinindu Koliya Harshanath and location Oregon. The main content area is titled "Amazon Web Services" and lists various services under categories such as Compute, Storage & Content Delivery, Database, and more. A "Resource Groups" section on the right explains what they are and provides a "Create a Group" button. Other sections include "Additional Resources" (Getting Started, AWS Console Mobile App, AWS Marketplace), "Service Health", and a "Help" link.

## Step 02

Select Launch Instance under Create Instance in main interface.

The screenshot shows the EC2 Management Console dashboard. The left sidebar has a tree view with nodes like EC2 Dashboard, Instances, Images, Elastic Block Store, and Network & Security. The main content area has tabs for Resources, Account Attributes, Additional Information, and AWS Marketplace. The "Create Instance" tab is active, showing a summary of resources: 0 Running Instances, 0 Dedicated Hosts, 0 Volumes, 0 Key Pairs, 0 Placement Groups, 0 Elastic IPs, 0 Snapshots, 0 Load Balancers, and 1 Security Groups. Below this is a "Simple Workflow Service" callout. The "Service Health" tab shows "Service Status: US West (Oregon)" with "No events". The "Scheduled Events" tab shows "US West (Oregon): No events". The "Additional Information" section includes links to Getting Started Guide, Documentation, All EC2 Resources, Forums, Pricing, and Contact Us. The "AWS Marketplace" section promotes free software trial products.

## Step 03

Choose an Amazon Machine image (AMI).

(Select Microsoft windows Server 2012 R2 Base)

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes 'AWS Services Edit' and user information 'Dinindu Koliya Harshanath Oregon Support'. Below the navigation is a breadcrumb trail: '1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review'. The main content area is titled 'Step 1: Choose an Amazon Machine Image (AMI)'. It lists three AMI options:

- Free tier eligible** (<http://www.ubuntu.com/cloud/services>)  
Root device type: ebs Virtualization type: hvm
- Microsoft Windows Server 2012 R2 Base - ami-8d0acfcd**  
Microsoft Windows 2012 R2 Standard edition with 64-bit architecture. [English]  
Root device type: ebs Virtualization type: hvm  
Select 64-bit
- Amazon RDS**  
Are you launching a database instance? Try Amazon RDS.  
Amazon Relational Database Service (RDS) makes it easy to set up, operate, and scale a relational database of your choice (MySQL, PostgreSQL, Oracle, SQL Server) in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database management tasks, freeing you up to focus on your applications and business. [Learn more](#).  
Launch a database using RDS
- Windows**  
Microsoft Windows Server 2012 R2 with SQL Server Express - ami-4817d228  
Microsoft Windows Server 2012 R2 Standard edition, 64-bit architecture, Microsoft SQL Server 2016 Express edition. [English]  
Root device type: ebs Virtualization type: hvm  
Select 64-bit

At the bottom of the page are links for 'Feedback', 'English', 'Privacy Policy', and 'Terms of Use'.

## Step 04

Choose an Instance type. (Free instance)

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes 'AWS Services Edit' and user information 'Dinindu Koliya Harshanath Oregon Support'. Below the navigation is a breadcrumb trail: '1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Tag Instance 6. Configure Security Group 7. Review'. The main content area is titled 'Step 2: Choose an Instance Type'. It displays a table of instance types:

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate

Below the table are buttons for 'Cancel', 'Previous', 'Review and Launch', and 'Next: Configure Instance Details'. At the bottom of the page are links for 'Feedback', 'English', 'Privacy Policy', and 'Terms of Use'.

## Step 05

Review Instance Launch.

The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard>. The page is titled "Step 7: Review Instance Launch". It displays the configuration details for launching an instance, including the AMI selected (Microsoft Windows Server 2012 R2 Base - ami-8d0acf6), the instance type (t2.micro), and storage options (EBS only). A warning message about security groups is present. At the bottom, there are "Cancel", "Previous", and "Launch" buttons, along with links for feedback, English language, privacy policy, and terms of use.

## Step 06

After launch there is popup box which is to select an existing key pair or create new key pair.

Select new key pair and download the key pair.

After downloading the key pair click Launch Instance.

The screenshot shows the AWS EC2 Management Console with the same URL as before. A modal window titled "Select an existing key pair or create a new key pair" is open. It contains instructions about key pairs and a form to either "Create a new key pair" or "Select an existing key pair". The "Key pair name" field is filled with "KeyPair01". Below the form, a note states that a private key file must be downloaded and stored securely. At the bottom of the modal are "Cancel" and "Launch Instances" buttons. The background of the main window shows the same instance configuration as the previous screenshot.

## Step 07

View instance after launching.

The screenshot shows the AWS EC2 Management Console at the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard>. The user is signed in as Dinindu Koliya Harshanath from Oregon. The main content area is titled "Launch Status" and displays a green success message: "Your instances are now launching. The following instance launches have been initiated: i-04b27187dff6bab99" with a link to "View launch log". Below this, there is a callout box with the heading "Get notified of estimated charges" and a sub-instruction: "Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier)". Further down, under "How to connect to your instances", it says: "Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances." It also advises clicking "View Instances" to monitor status. A sidebar on the left lists navigation options like EC2 Dashboard, Events, Tags, Reports, Limits, Instances (which is selected), Spot Requests, Reserved Instances, Scheduled Instances, Dedicated Hosts, Images, AMIs, Bundle Tasks, Elastic Block Store, Volumes, Snapshots, Network & Security, Security Groups, and Elastic IPs. At the bottom, there are links for Feedback, English, Privacy Policy, and Terms of Use.

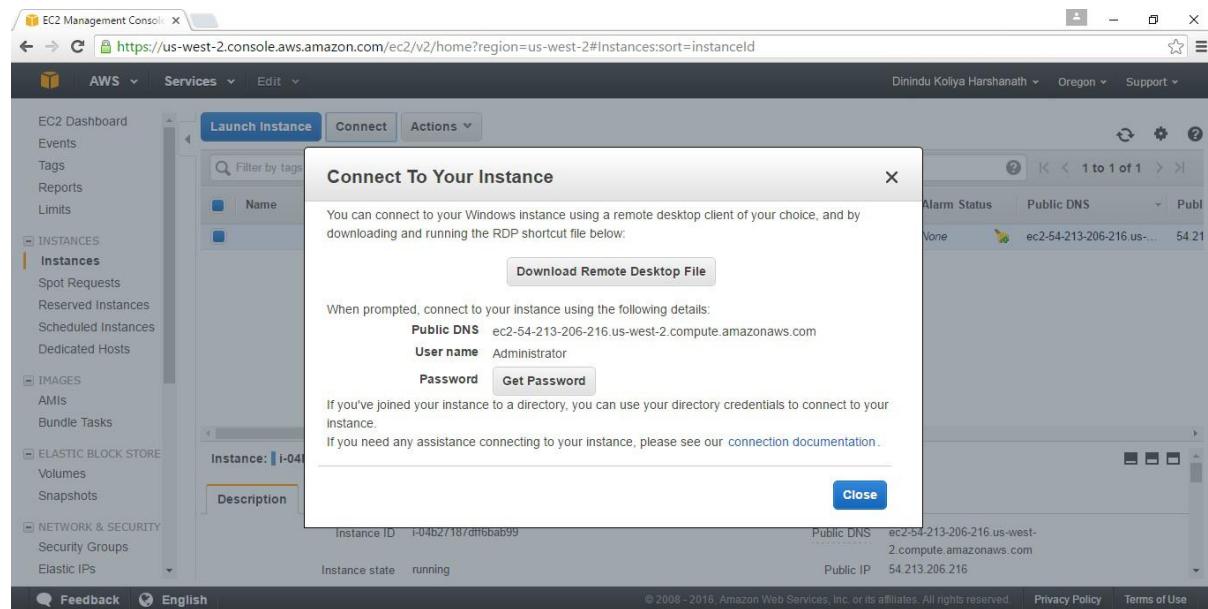
## Step 08

Select the created instance and then connect.

The screenshot shows the AWS EC2 Management Console at the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#Instances>. The user is signed in as Dinindu Koliya Harshanath from Oregon. The main content area shows the "Instances" section of the dashboard. A table lists one instance: "i-04b27187dff6bab99" (t2.micro, us-west-2b, running, Public DNS: ec2-54-213-206-216.us-west-2.compute.amazonaws.com, Public IP: 54.213.206.216). Below the table, a detailed view for the selected instance (i-04b27187dff6bab99) is shown, including tabs for Description, Status Checks, Monitoring, and Tags. The "Description" tab displays the Instance ID (i-04b27187dff6bab99), Public DNS (ec2-54-213-206-216.us-west-2.compute.amazonaws.com), Public IP (54.213.206.216), and Instance state (running). The sidebar on the left includes sections for EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Spot Requests, Reserved Instances, Scheduled Instances, Dedicated Hosts, Images, AMIs, Bundle Tasks, Elastic Block Store, Volumes, Snapshots, Network & Security, Security Groups, and Elastic IPs. At the bottom, there are links for Feedback, English, Privacy Policy, and Terms of Use.

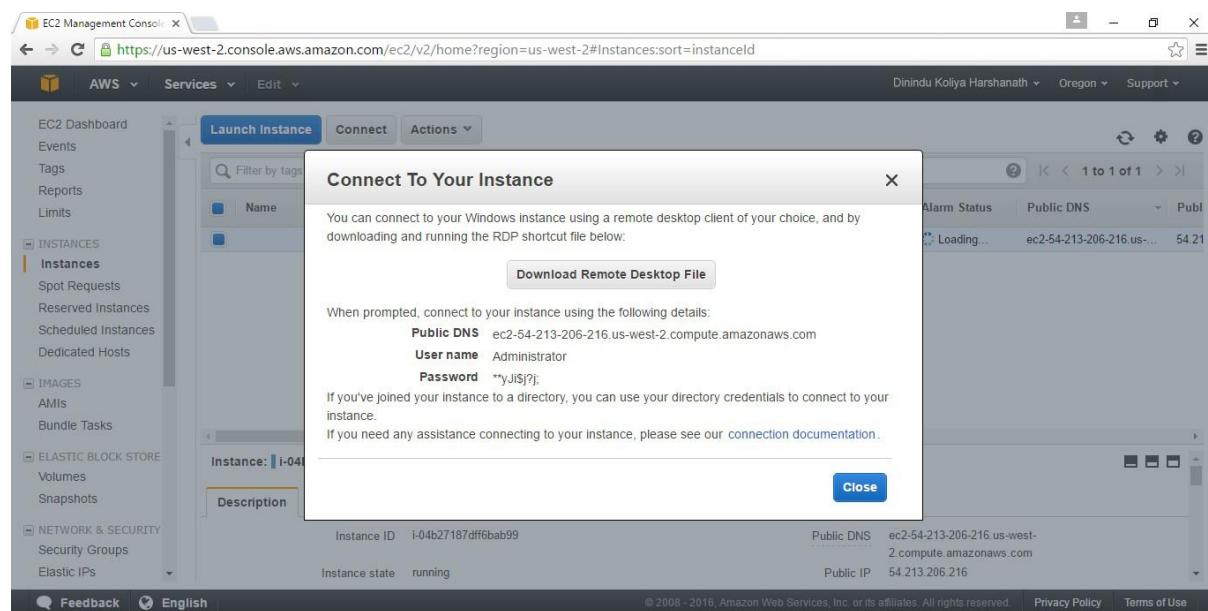
## **Step 09**

Get a password from Connect to Your Instance window.



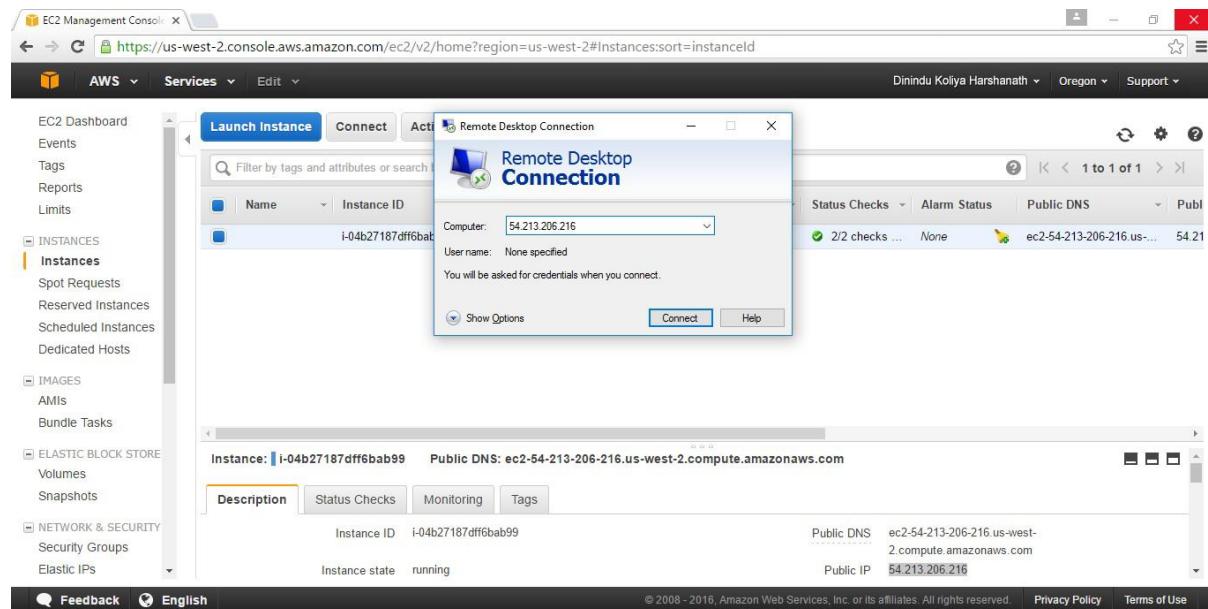
## **Step 10**

Decrypt the password. Note down the user name and the decrypted password.



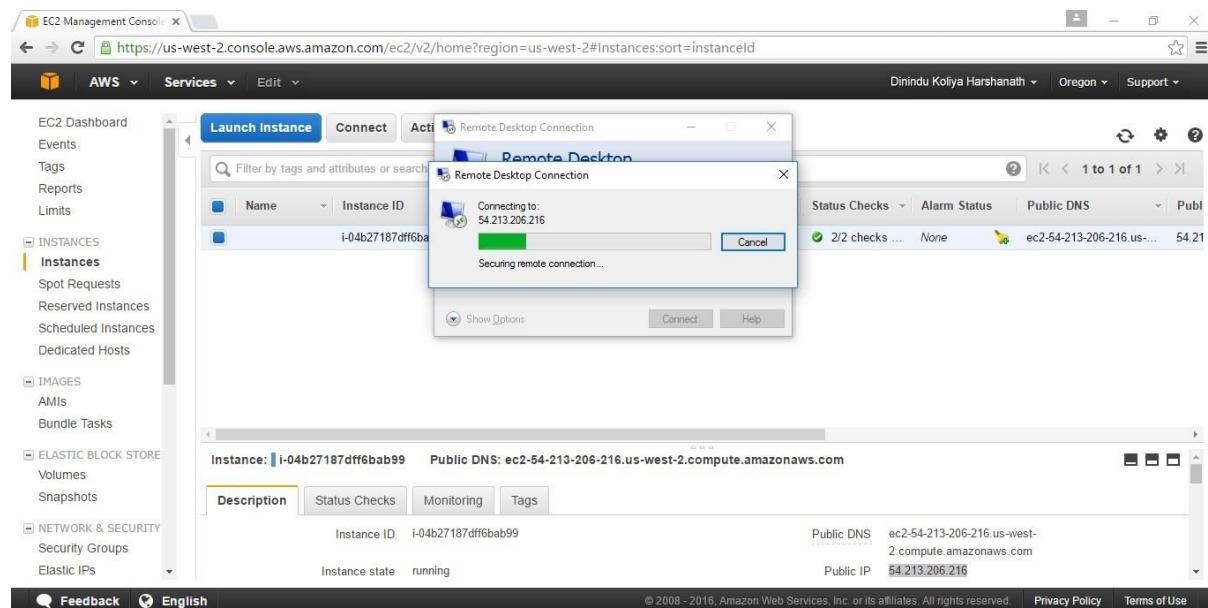
## Step 11

Open Remote Desktop Connection. Provide the public IP of the launched instance.



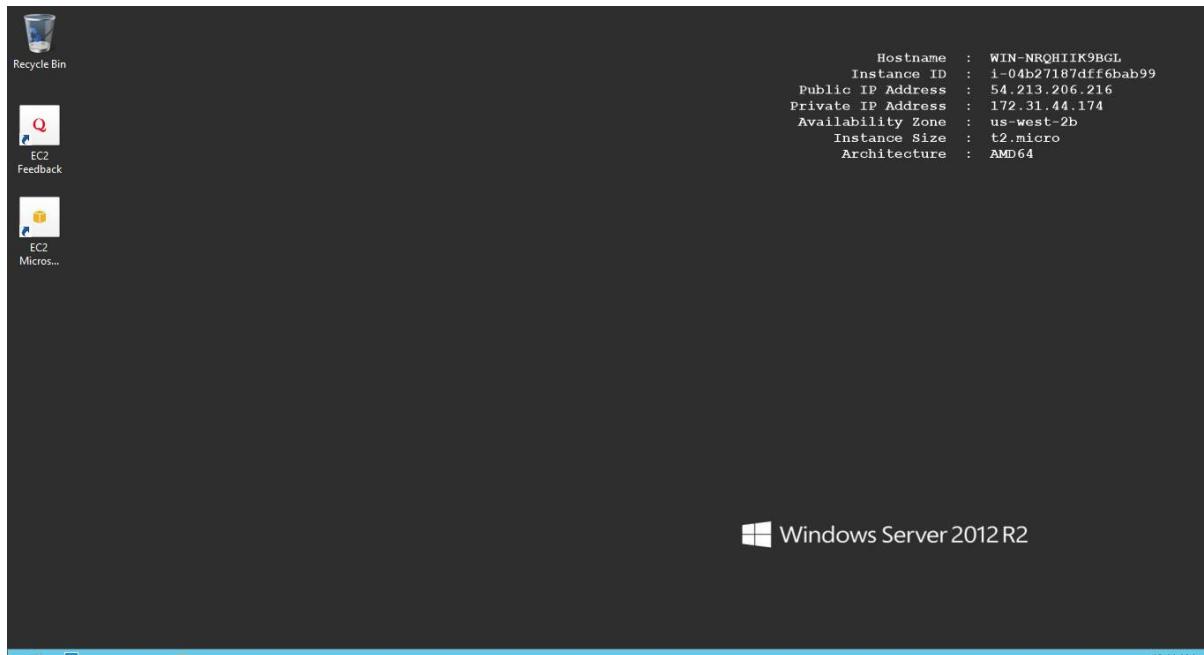
## Step 12

Connect to the created instance.



## Step 13

Log in to Windows Server 2012 R2 using the given user name and the decrypted password.



## Step 14

Right click on the created server instance and terminate it from the instance state.

(Right click on instance -> Instance State -> Stop)

A screenshot of the AWS EC2 Management Console. The left sidebar shows navigation options like EC2 Dashboard, Events, Tags, Reports, Limits, Instances, Images, AMIs, and more. The 'Instances' section is currently selected. The main content area displays a table of instances. One instance is listed with the following details:

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Publ
i-04b27187dff6bab99	t2.micro	us-west-2b	terminated	None				

At the bottom of the instance details, there is a 'Description' tab and a summary table:

Instance ID	i-04b27187dff6bab99	Public DNS:	-
Instance state	terminated	Public IP	
Instance type	t2.micro	Floating IPs	

# Creating an Amazon EBS-Backed Linux AMI

## Step 01

Choose an Amazon Machine Image (AMI).

Select Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type

Step 1: Choose an Amazon Machine Image (AMI)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Quick Start

My AMIs

AWS Marketplace

Community AMIs

Free tier only

Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611

The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.

Root device type: ebs Virtualization type: hvm

Select

64-bit

Red Hat Enterprise Linux 7.2 (HVM), SSD Volume Type - ami-775e4f16

Red Hat Enterprise Linux version 7.2 (HVM), EBS General Purpose (SSD) Volume Type

Root device type: ebs Virtualization type: hvm

Select

64-bit

SUSE Linux Enterprise Server 12 SP1 (HVM), SSD Volume Type - ami-d2627db3

SUSE Linux Enterprise Server 12 Service Pack 1 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled.

Select

64-bit

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## Step 02

Choose an Instance Type. Then review and launch

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.

Filter by: All instance types Current generation Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
<input checked="" type="checkbox"/>	General purpose	t2.micro	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate

Cancel Previous Review and Launch Next: Configure Instance Details

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## Step 03

### Review Instance Launch.

The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard>. The page is titled "Step 7: Review Instance Launch". It shows the following details:

- AMI Details:** Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611 (Free tier eligible). The description states it's an EBS-backed, AWS-supported image with Docker, PHP, MySQL, PostgreSQL, and other packages. Root Device Type: ebs, Virtualization type: hvm.
- Instance Type:** T2 micro (Variable, 1 vCPU, 1 GiB Memory, EBS only storage, EBS-Optimized Available, Low to Moderate Network Performance).

A modal window titled "Select an existing key pair or create a new key pair" is displayed, asking for a key pair name (e.g., KeyPair02) and providing instructions to download the private key file. The "Launch" button is visible at the bottom right of the modal.

## Step 04

Choose create a new key pair to download a new key pair.

Then give a key pair name. Then select Launch Instance.

The screenshot shows the AWS EC2 Management Console with the URL <https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstanceWizard>. The page is titled "Step 7: Review Instance Launch". It shows the following details:

- AMI Details:** Amazon Linux AMI 2016.03.3 (HVM), SSD Volume Type - ami-7172b611 (Free tier eligible). The description states it's an EBS-backed, AWS-supported image with Docker, PHP, MySQL, PostgreSQL, and other packages. Root Device Type: ebs, Virtualization type: hvm.
- Instance Type:** T2 micro (Variable, 1 vCPU, 1 GiB Memory, EBS only storage, EBS-Optimized Available, Low to Moderate Network Performance).

A modal window titled "Select an existing key pair or create a new key pair" is displayed, asking for a key pair name (e.g., KeyPair02) and providing instructions to download the private key file. The "Create a new key pair" option is selected. A note at the bottom of the modal states: "You have to download the private key file (\*.pem file) before you can continue. Store it in a secure and accessible location. You will not be able to download the file again after it's created." The "Launch Instances" button is visible at the bottom right of the modal.

## Step 05

View Instances after launching.

Your instances are now launching  
The following instance launches have been initiated: i-02ecbc4cf693e07bf [View launch log](#)

**Get notified of estimated charges**  
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

▼ Here are some helpful resources to get you started

- How to connect to your Linux instance
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- Amazon EC2: Discussion Forum

## Step 06

Open PUTTY Key Generator.

Then browse and load the downloaded key pair file and save it as a private key.

Putty Key Generator

File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized\_keys file:

```
ssh-rsa AAAAB3NzaC1yc2EAAQABAAAQCC5wjaeVW4DhYXh5JaRbFr4pCrpx...+hZU0fH+10+M3mb4M2XjNEdh8/1dBeYXtLebH0xnZuhD5o3F1vDMFQB...+Yy6WVxtAe0nlfEdOwvMawVs02IIAv4lNTrZGQ73/...+BV1b2 PuTTYgen Notice
```

Key finger

Key comment

Key pass

Confirm p

Actions

Generate

Load an

Save the generated key

Parameters

Type of key to generate:  RSA  DSA  ECDSA  SSH-1 (RSA)

Number of bits in a generated key: 2048

OK

OK

Search Downloads

54.20

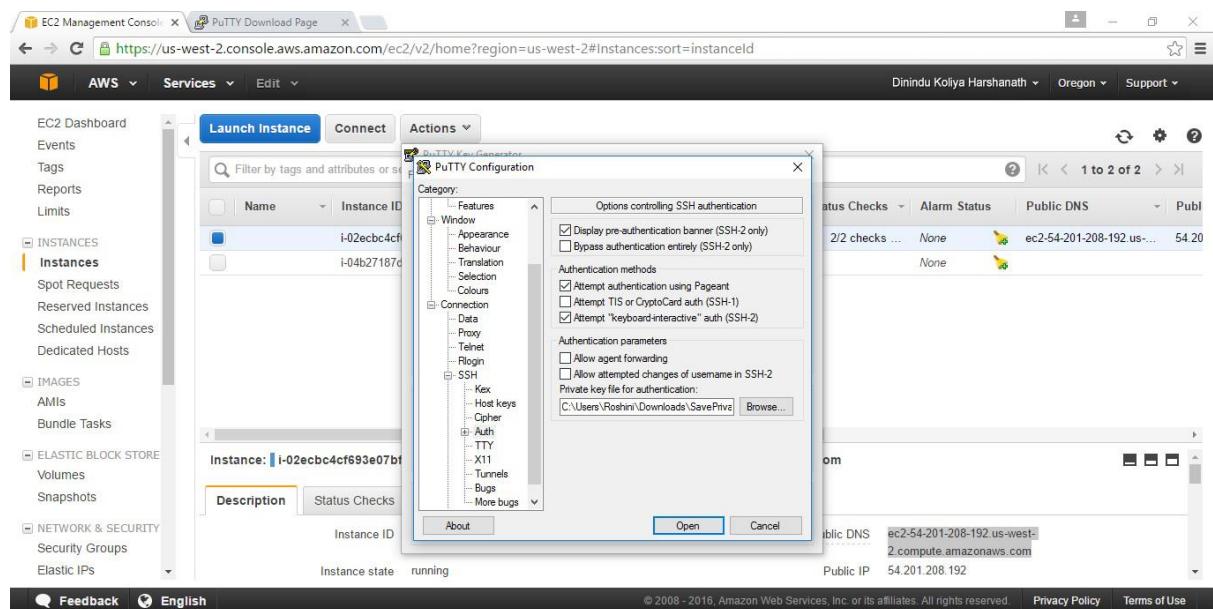
## Step 07

Open PUTTY Configuration.

Go to Connection category for SSH authentication.

(Connection -> SSH -> Auth)

Then under authentication parameters browse saved private key and open.

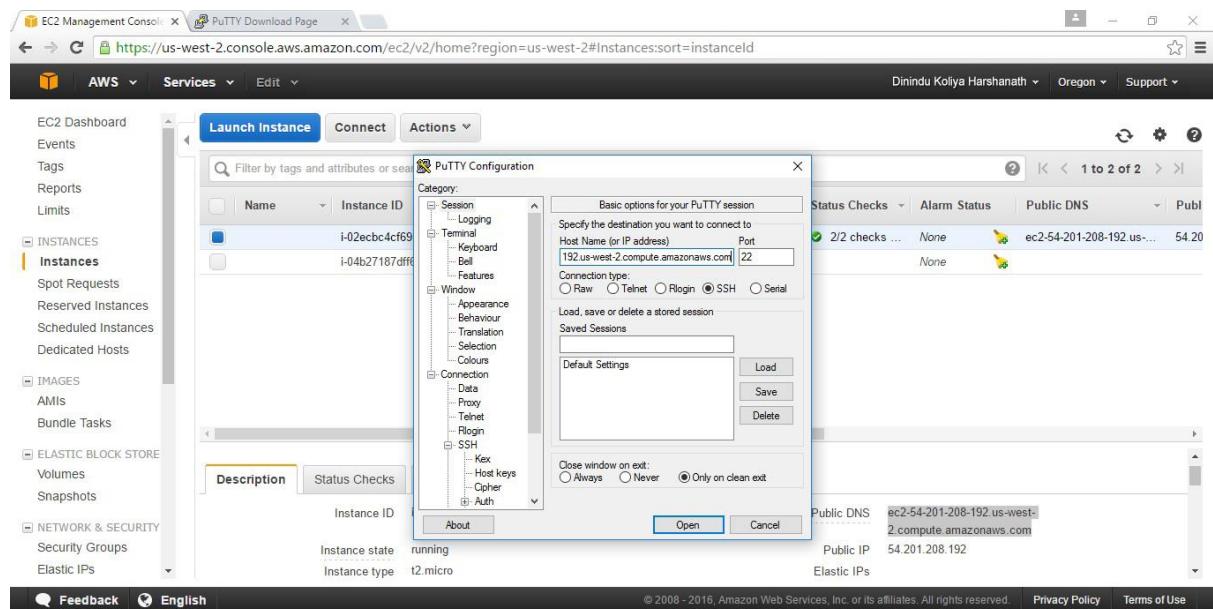


## Step 8

Go back to Session category in PUTTY Configuration.

Copy the Public DNS of created instance and paste it under Host Name.

Set Connection type to SSH and open.



## Step 9

Log in to Linux by giving user name in the kernel. (ec2-user)

Type some Linux commands to check. (ls -al)

The screenshot shows the EC2 Management Console interface. On the left, there's a sidebar with navigation links like EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES, IMAGES, AMIs, and more. The main area has two tabs: 'PuTTY Download Page' and 'ec2-user@ip-172-31-27-217:~'. The terminal window displays a login session for 'ec2-user' on an 'Amazon Linux AMI' instance. The user runs 'ls -al' which lists the contents of the current directory. To the right of the terminal is a table showing two instances: 'i-02ecbc4cf693e07bf' (running) and 'i-04b27187dff6bab99' (terminated). Below the table is a detailed view of the running instance, showing its ID, state, type, and network information.

## Step 10

Terminate or stop the instance from instance state.

(Right click on instance -> Instance State -> Terminate/ Stop)

This screenshot shows the EC2 Management Console after the instance 'i-02ecbc4cf693e07bf' has been terminated. The terminal window now shows the instance is 'stopped'. The table on the right still lists it as 'running', but the detailed view below shows its state as 'stopped'. The sidebar remains the same as in the previous screenshot.

# Creating an Amazon RDS Database

## Step 01

Select RDS from Amazon Web Services. (Services -> RDS)

The screenshot shows the AWS Management Console interface. At the top, there's a navigation bar with links for AWS, Services, Edit, and a user profile. Below the navigation bar is a search bar and a "Resource Groups" button. The main content area is titled "Amazon Web Services" and contains several categories of services, each with a list of icons and names. The "RDS" icon under the "Database" section is highlighted with a blue border. Other database services like DynamoDB, ElastiCache, Redshift, and DMS are also listed. To the right of the service lists are sections for "Additional Resources" (Getting Started, AWS Console Mobile App, AWS Marketplace, AWS re:Invent Announcements) and "Service Health". The bottom of the screen shows the Windows taskbar with various pinned icons.

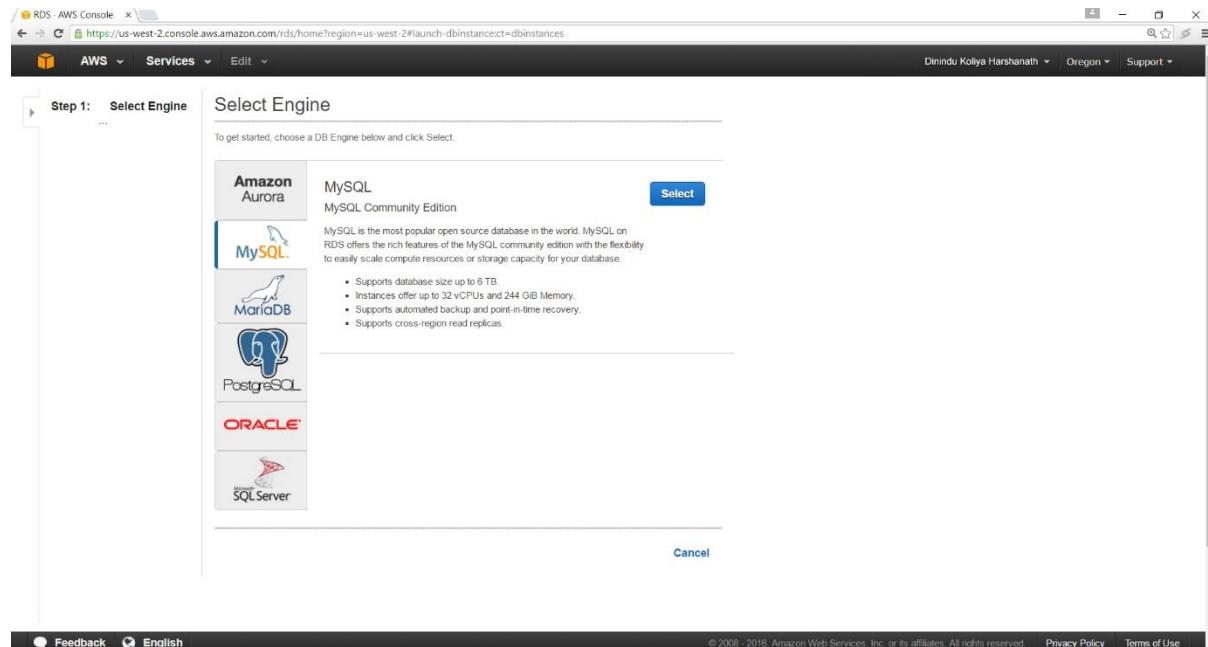
## Step 02

Choose Instances from RDS Dashboard. Select Launch DB Instance.

The screenshot shows the RDS - AWS Console dashboard. The left sidebar has a "RDS Dashboard" section with links for Instances, Clusters, Reserved Purchases, Snapshots, Security Groups, Parameter Groups, Option Groups, Subnet Groups, Events, Event Subscriptions, and Notifications. The main content area has tabs for "Launch DB Instance", "Show Monitoring", and "Instance Actions". A search bar at the top says "Search DB Instances...". Below the search bar is a table header with columns: Filter, Engine, DB Instance, Status, CPU, Current Activity, Maintenance, Class, VPC, Multi-AZ, Replication Role, and Encrypted. A note below the table says: "Amazon Relational Database Service (RDS) is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. We currently offer MySQL, SQL Server, Postgres and Oracle engines, allowing you to use the code, application and tools you already use with your existing database with Amazon RDS. You can find pricing information for RDS [here](#). Click the Launch DB Instance button to get started." At the bottom of the page, there are links for Feedback, English, Copyright notice (© 2006–2016, Amazon Web Services, Inc. or its affiliates. All rights reserved.), Privacy Policy, and Terms of Use.

## Step 03

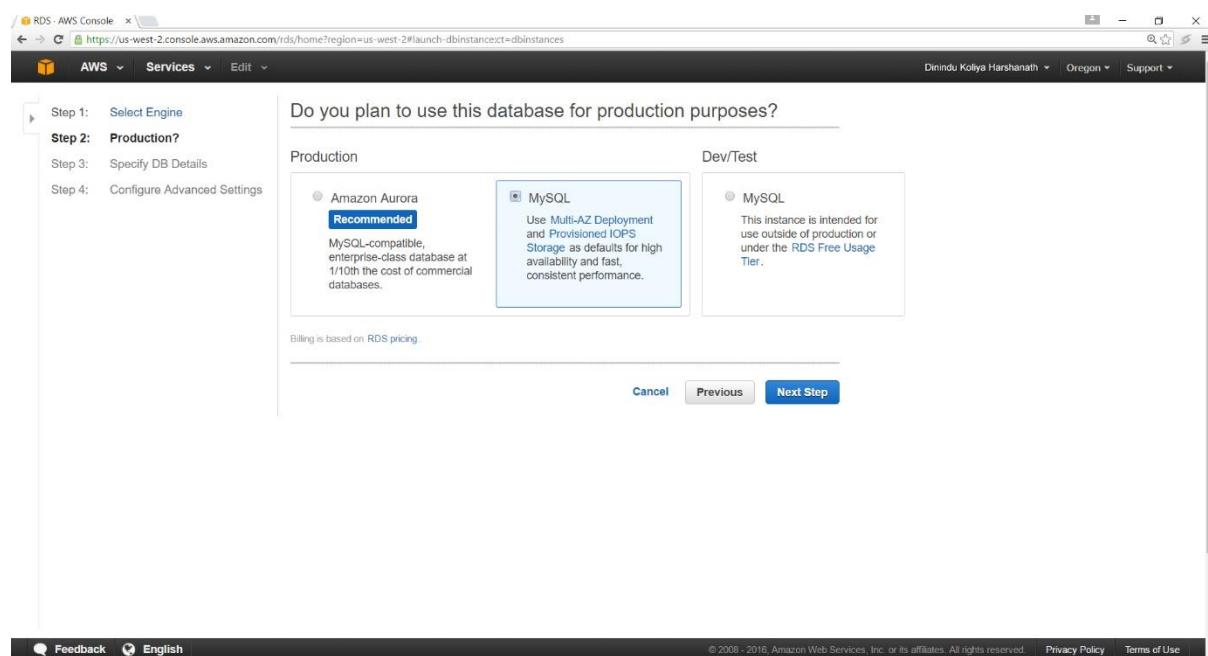
Choose MySQL from ‘Select Engine’ tab.



## Step 04

Select MySQL under ‘Production’ category.

Then proceed to next step.



## **Step 05**

Specify the DB details. (Instance Specifications and Settings)

- License Model: general-public-license
- DB Engine Version: 5.6.19a
- DB Instance Class: db.t2. micro – 1 vCPU, 1 GB RAM
- Multi-AZ Deployment: No
- Storage Type: General Purpose (SSD)
- Allocated Storage: 15 GB

Provide a DB instance identifier, a master username and a master password.

The screenshot shows the 'Specify DB Details' page of the AWS RDS console. The navigation bar at the top indicates 'Step 3: Specify DB Details'. The main section is titled 'Instance Specifications' and contains the following configuration:

- DB Engine: mysql
- License Model: general-public-license
- DB Engine Version: 5.6.19a
- DB Instance Class: db.t2.micro — 1 vCPU, 1 GiB RAM
- Multi-AZ Deployment: No
- Storage Type: General Purpose (SSD)
- Allocated Storage: 15 GB

A warning message in a callout box states: "Provisioning less than 100 GB of General Purpose (SSD) storage for high throughput workloads could result in higher latencies upon exhaustion of the initial General Purpose (SSD) IO credit balance. Click here for more details." Below this, the 'Settings' section includes fields for:

- DB Instance Identifier\*: firstinstance
- Master Username\*: firstinstance
- Master Password\*

Below the master password field, a note says: "Retype the value you specified for Master Password."

This screenshot shows the same 'Specify DB Details' page, but the 'Next Step' button at the bottom is now visible and highlighted in blue, indicating the user can proceed to the next step in the wizard.

## Step 06

Give a database name in ‘Configure Advanced Settings’ tab. (Database Options)

Choose ‘No’ in Enable Enhanced Monitoring. (Monitoring)

Click ‘Launch DB Instance’.

The screenshot shows the 'Configure Advanced Settings' step of the AWS RDS wizard. The 'Database Name' field is populated with 'firstDB'. The 'Enable Enhanced Monitoring' dropdown is set to 'No'. The 'Launch DB Instance' button is located at the bottom of the page.

The screenshot shows the 'Configure Advanced Settings' step of the AWS RDS wizard, focusing on the 'Monitoring' section. The 'Enable Enhanced Monitoring' dropdown is set to 'No'. The 'Launch DB Instance' button is located at the bottom of the page.

## **Step 07**

Click ‘View Your DB Instances’ from next window.

The screenshot shows the AWS RDS console with the URL <https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#launch-dbinstancect=dbinstances>. The page displays a progress bar with four steps: Step 1: Select Engine, Step 2: Production?, Step 3: Specify DB Details, and Step 4: Configure Advanced Settings. A green box highlights the message: “Your DB Instance is being created.” Below it, a note says: “Note: Your instance may take a few minutes to launch.” Further down, there is a section titled “Connecting to your DB Instance” with a note about security groups and a link to “Go to the Security Groups Page”. A “Related AWS Services” section includes “Amazon ElastiCache” with a link to learn more and launch a Cache Cluster. At the bottom right is a blue button labeled “View Your DB Instances”.

## **Step 08**

Wait until the instance status change to ‘available’ from ‘creating’.

(Creating -> backing-up -> available)

The screenshot shows the AWS RDS Dashboard with the URL <https://us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#dbinstancesid=firstinstance>. The left sidebar has links for RDS Dashboard, Instances, Clusters, Reserved Purchases, Snapshots, Security Groups, Parameter Groups, Option Groups, Subnet Groups, Events, Event Subscriptions, and Notifications. The main area shows a table of DB instances. The first instance listed is “firstinstance”, which is currently in the “creating” state. Other columns include Engine (MySQL), Status (creating), Current Activity (None), Class (db.t2.micro), VPC (vpc-031b6067), Multi-AZ (No), Replication Role (None), and Encrypted (No). The table has filters for Engine, DB Instance, Status, CPU, Current Activity, Maintenance, Class, VPC, Multi-AZ, Replication Role, and Encrypted.

The screenshot shows the AWS RDS console interface. On the left, there's a sidebar titled 'RDS Dashboard' with various navigation options like Instances, Clusters, Reserved Purchases, Snapshots, Security Groups, Parameter Groups, Option Groups, Subnet Groups, Events, Event Subscriptions, and Notifications. The main area has tabs for 'Launch DB Instance', 'Show Monitoring', and 'Instance Actions'. A search bar at the top says 'Search DB Instances...'. Below it is a table titled 'Viewing 1 of 1 DB Instances'. The table has columns for Engine (MySQL), DB Instance (firstinstance), Status (backing-up), CPU, Current Activity, Maintenance, Class (db.t2.micro), VPC (vpc-031b6067), Multi-AZ, Replication Role, and Encrypted. The status 'backing-up' is highlighted in orange. At the bottom of the page, there are links for Feedback, English, Privacy Policy, and Terms of Use.

This screenshot is identical to the one above, showing the AWS RDS console. The main difference is the status of the database instance. In the first screenshot, it was 'backing-up'. In this second screenshot, it has been successfully created and is now listed as 'available'. All other details like engine, class, and VPC remain the same.

## Step 09

Expand the instance to view Endpoint.

Copy the Endpoint without the port number.

The screenshot shows the AWS RDS Dashboard. On the left, there's a sidebar with options like Instances, Clusters, Reserved Purchases, Snapshots, Security Groups, Parameter Groups, Option Groups, Subnet Groups, Events, Event Subscriptions, and Notifications. The main area displays a table for 'All Instances'. One row is selected for 'MySQL firstinstance', which is listed as 'available' with a CPU usage of 5.67%, 0 connections, and no maintenance. Below the table, there are two sections: 'Alarms and Recent Events' and 'Monitoring'. The 'Alarms and Recent Events' section shows several log entries: 'Jul 25 7:56 AM Finished DB Instance backup', 'Jul 25 7:56 AM Backing up DB instance', 'Jul 25 7:54 AM DB Instance created', and 'Jul 25 7:54 AM DB Instance restarted'. The 'Monitoring' section provides real-time metrics for CPU, Memory, Storage, and Swap Usage. At the bottom, there are buttons for 'Instance Actions', 'Tags', and 'Logs'.

## Step 10

Open XAMPP Control Panel.

Start MySQL.

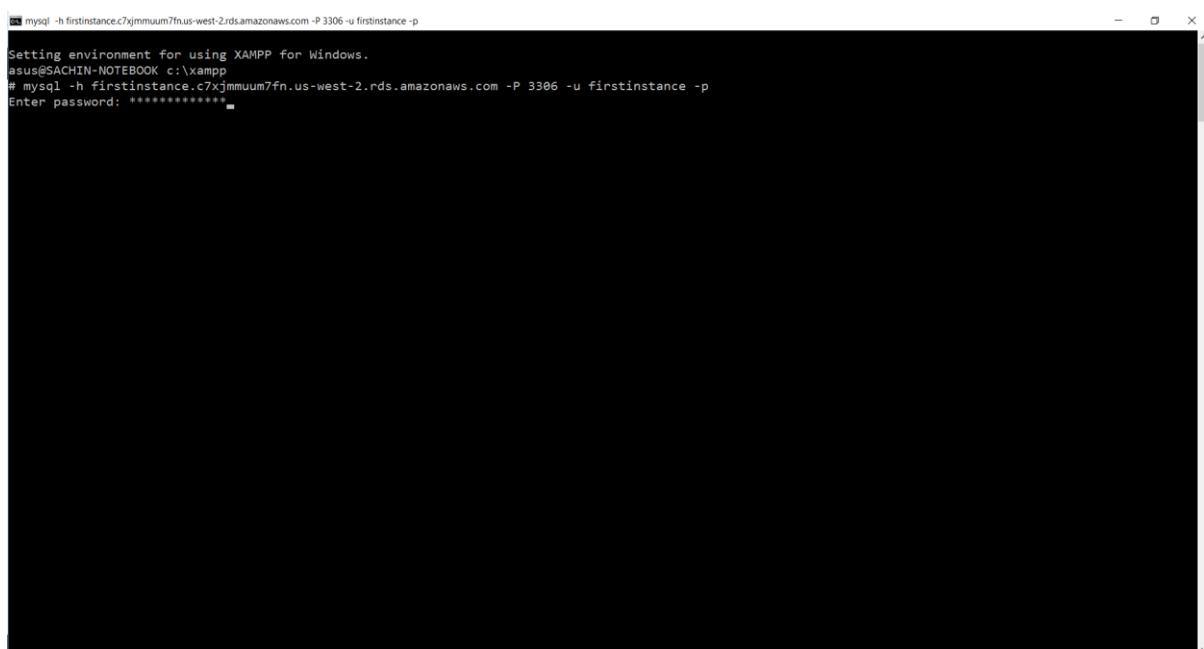
The screenshot shows the XAMPP Control Panel v3.2.1. On the left, a list of services includes Apache, MySQL (selected), FileZilla, Mercury, and Tomcat. The MySQL entry shows a PID of 11036 and a Port of 3306. There are buttons for Start, Stop, Admin, Config, Logs, and Shell. A message box is open, displaying logs for MySQL: 'Attempting to start MySQL app...', 'Status change detected: running', and 'Status: running'. In the background, a separate window for the AWS RDS Dashboard is visible, showing the same MySQL instance 'firstinstance' with its monitoring details.

## **Step 11**

Go to the Shell in XAMPP Control Panel.

Type the command. (mysql -h <endpoint> -P <portnumber> -u <instancename> -p)

Enter master password.



```
mysql -h firstinstance.c7xjmmuum7fn.us-west-2.rds.amazonaws.com -P 3306 -u firstinstance -p
Setting environment for using XAMPP for Windows.
asus@SACHIN-NOTEBOOK c:\xampp
# mysql -h firstinstance.c7xjmmuum7fn.us-west-2.rds.amazonaws.com -P 3306 -u firstinstance -p
Enter password: *****
```

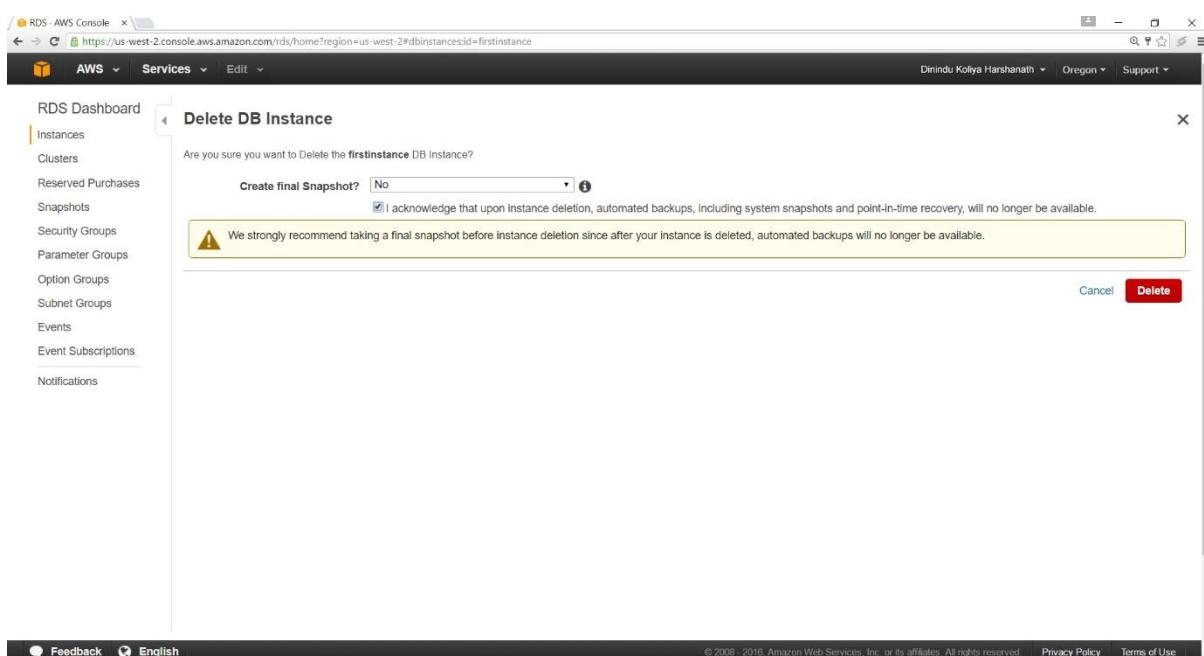
## **Step 12**

Delete the created DB instance.

(Instance Actions -> Delete)

Choose ‘No’ in Create Final Snapshot.

Confirm delete by clicking ‘Delete’.



RDS - AWS Console

AWS Services Edit

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RDS Dashboard

Instances Clusters Reserved Purchases Snapshots Security Groups Parameter Groups Option Groups Subnet Groups Events Event Subscriptions Notifications

Launch DB Instance Show Monitoring Instance Actions

Filter: All Instances Search DB Instances... Viewing 1 of 1 DB Instances

Engine: MySQL DB Instance: firstinstance Status: deleting CPU: 1.17% Current Activity: 0 Connections Maintenance: None Class: db.t2.micro VPC: vpc-031b6067 Multi-AZ: No Replicati

Endpoint: firstinstance.c7jmuu7fn.us-west-2.rds.amazonaws.com:3306 (authorized)

Alarms and Recent Events

TIME (UTC+5:30)	EVENT
Jul 25 7:56 AM	Finished DB instance backup
Jul 25 7:55 AM	Backing up DB instance
Jul 25 7:54 AM	DB instance created
Jul 25 7:54 AM	DB instance restarted

Monitoring

CURRENT VALUE	THRESHOLD	LAST HOUR	CURRENT VALUE	LAST HOUR
CPU	1.17%		Read IOPS	0/sec
Memory	556 MB		Write IOPS	0.2/sec
Storage	14,500 MB		Swap Usage	0 MB

Instance Actions Tags Logs

Feedback English

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RDS - AWS Console

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RDS Dashboard

Instances Clusters Reserved Purchases Snapshots Security Groups Parameter Groups Option Groups Subnet Groups Events Event Subscriptions Notifications

Launch DB Instance Show Monitoring Instance Actions

Filter: All Instances Search DB Instances... No DB Instances

Engine: MySQL DB Instance: firstinstance Status: CPU: Current Activity: Maintenance: Class: VPC: Multi-AZ: Replication Role: Encrypted:

Amazon Relational Database Service (RDS) is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. We currently offer MySQL, SQL Server, PostgreSQL and Oracle engines, allowing you to use the code, application and tools you already use with your existing database with Amazon RDS. You can find pricing information for RDS [here](#). Click the Launch DB Instance button to get started.

Note: Your DB Instances will launch in the US West (Oregon) region.

Feedback English

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