



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 Tuesday

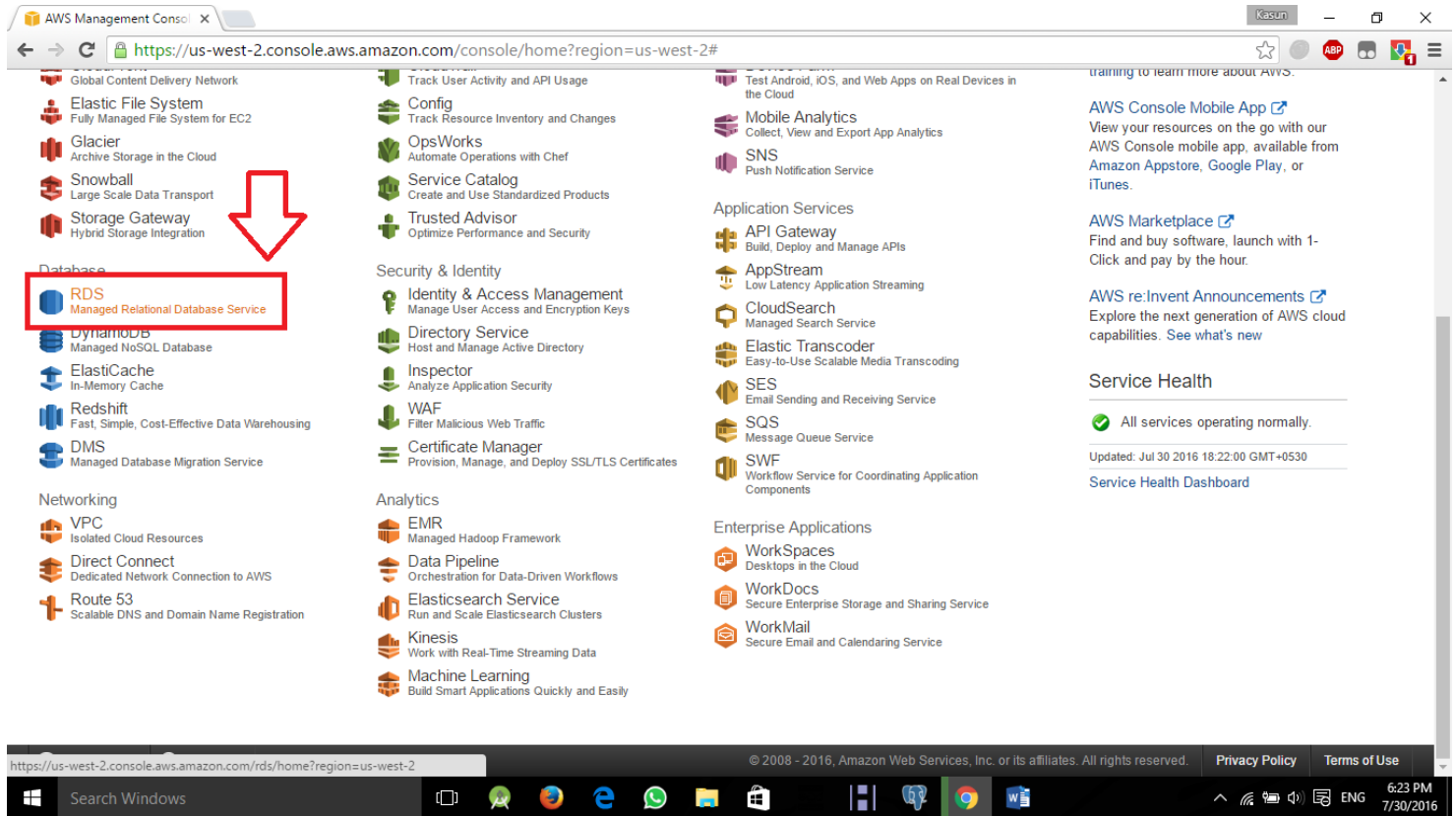
Practical Number : Lab 03

Date of Submission: 2016/07/30

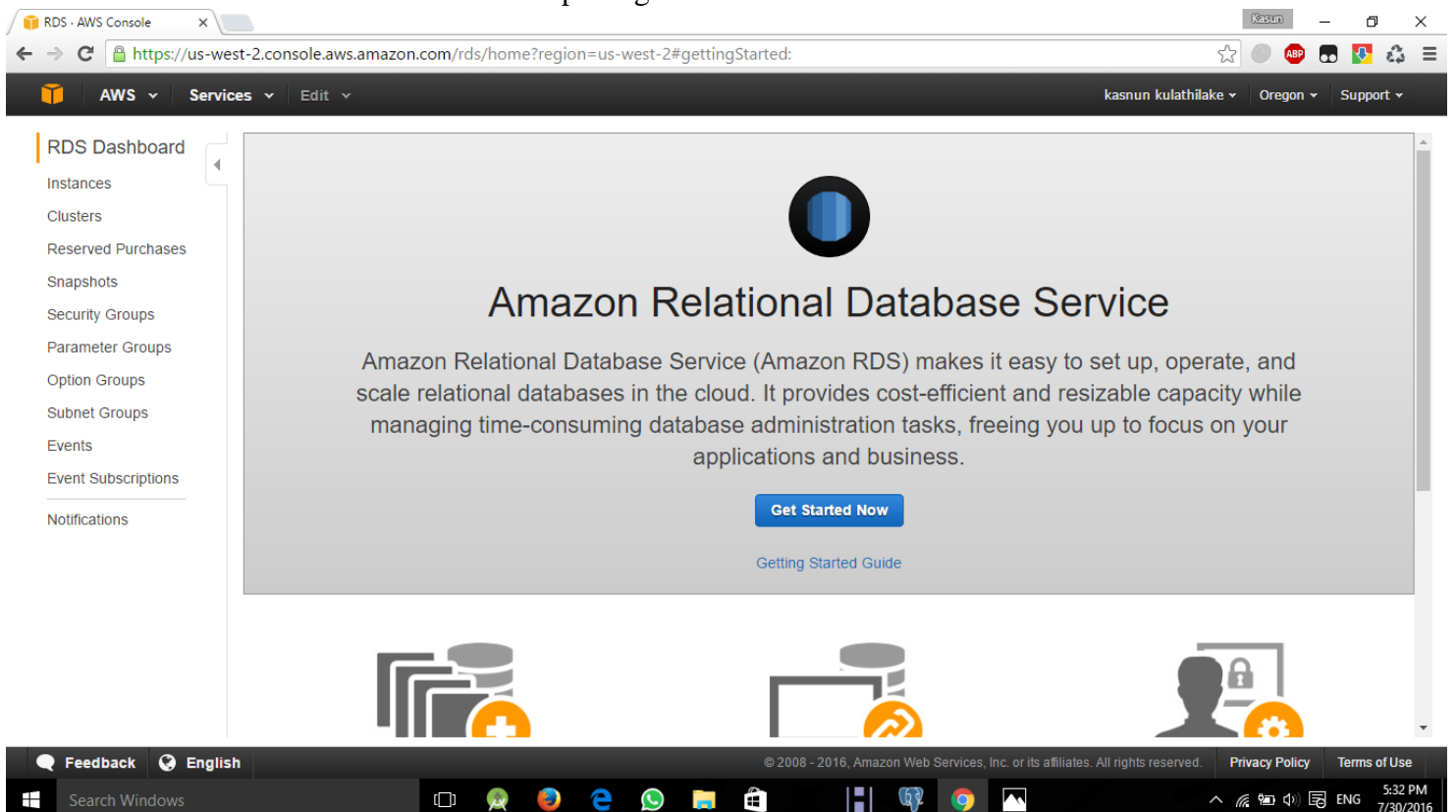
# Creating a MySQL DB Instance

## Steps

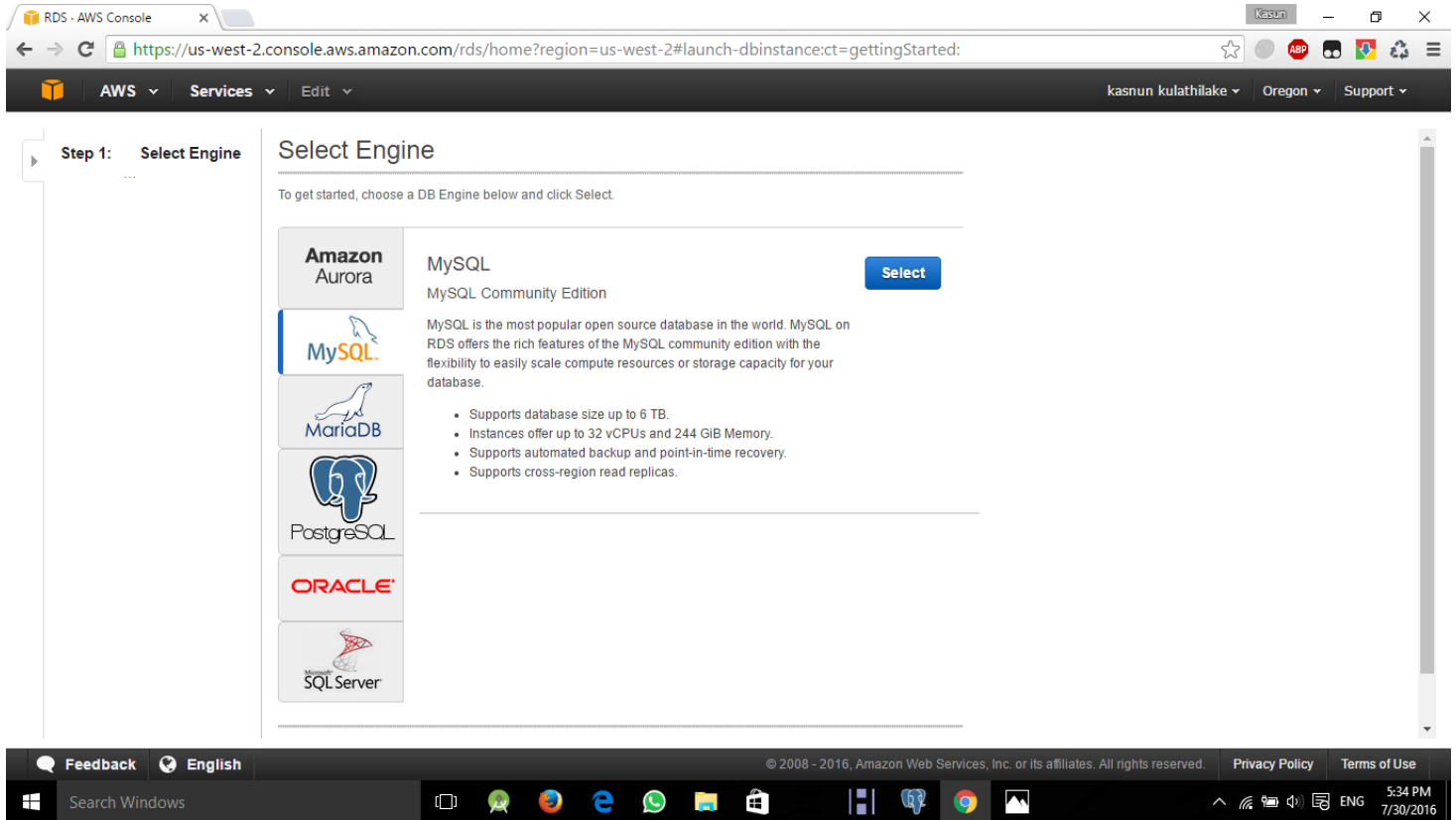
### 1. Open the Amazon RDS AWS Console



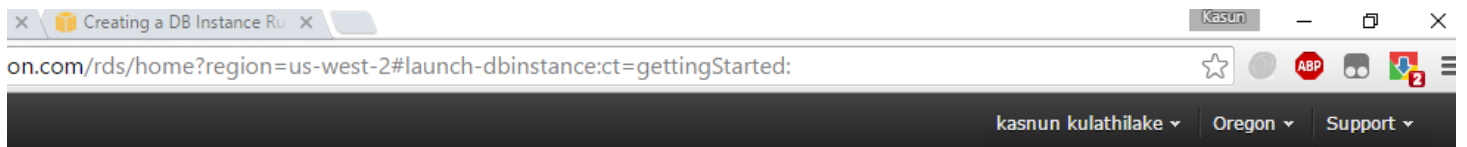
### 2. From the RDS dashboard ,press get started now button.



3. In the **Launch DB Instance Wizard** window, click the **Select** button for the MySQL DB engine.



4. For database plan select dev/test MySQL this is under the RDS free usage tier and press next step button.



Do you plan to use this database for production purposes?

Production

☐ Amazon Aurora

**Recommended**

MySQL-compatible, enterprise-class database at 1/10th the cost of commercial databases.

☐ MySQL

Use [Multi-AZ Deployment](#) and [Provisioned IOPS Storage](#) as defaults for high availability and fast, consistent performance.

Dev/Test

☒ MySQL

This instance is intended for use outside of production or under the [RDS Free Usage Tier](#).

pricing is based on [RDS pricing](#).

[Cancel](#)

[Previous](#)

[Next Step](#)

## 5. On the Specify DB Details page, specify your DB instance information.

**Step 3: Specify DB Details**

Step 4: Configure Advanced Settings

**Free Tier**

The Amazon RDS Free Tier provides a single db.t2.micro instance as well as up to 20 GB of storage, allowing new AWS customers to gain hands-on experience with Amazon RDS. Learn more about the RDS Free Tier and the instance restrictions [here](#).

☐ Only show options that are eligible for RDS Free Tier

**Instance Specifications**

DB Engine: mysql

License Model: general-public-license

DB Engine Version: 5.6.27

[Review the Known Issues/Limitations to learn about potential compatibility issues with specific database versions.](#)

DB Instance Class: - Select One -

Multi-AZ Deployment: - Select One -

Storage Type: - Select One -

Allocated Storage\*: 5 GB

**Warning:** 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.

For this parameter...	...Do this:
<b>License Model</b>	MySQL has only one license model. Select the default, <code>General-Public-License</code> , to use the general license agreement for MySQL.
<b>DB Engine Version</b>	Select the version of MySQL that you want to work with. Note that Amazon RDS supports several versions of MySQL.
<b>DB Instance Class</b>	Select a DB instance class that defines the processing and memory requirements for the DB instance. For more information about all the DB instance class options, see <a href="#">DB Instance Class</a> .
<b>Multi-AZ Deployment</b>	Determine if you want to create a standby replica of your DB instance in another Availability Zone for failover support. For more information about multiple Availability Zones, see <a href="#">Regions and Availability Zones</a> .
<b>Allocated Storage</b>	Type a value to allocate storage for your database (in gigabytes). In some cases, allocating a higher amount of storage for your DB instance than the size of your database can improve I/O performance. For more information about storage allocation, see <a href="#">Amazon RDS Storage Types</a> .

For this parameter...	...Do this:
<b>Storage Type</b>	Select the storage type you want to use. For more information about storage, see <a href="#">Storage for Amazon RDS</a> .
<b>DB Instance Identifier</b>	Type a name for the DB instance that is unique for your account in the region you selected. You may choose to add some intelligence to the name such as including the region and DB Engine you selected, for example <code>mysql-instance1</code> .
<b>Master Username</b>	Type a name using alphanumeric characters that you will use as the master user name to log on to your DB instance. The default privileges granted to the master user name account include: create, drop, references, event, alter, delete, index, insert, select, update, create temporary tables, lock tables, trigger, create view, show view, alter routine, create routine, execute, create user, process, show databases, grant option.
<b>Master Password</b>	Type a password that contains from 8 to 16 printable ASCII characters (excluding /, ", and @) for your master user password.
<b>Confirm Password</b>	Re-type the Master Password for confirmation.

## Specify DB Details

### Free Tier

The Amazon RDS Free Tier provides a single db.t2.micro instance as well as up to 20 GB of storage, allowing new AWS customers to gain hands-on experience with Amazon RDS. Learn more about the RDS Free Tier and the instance restrictions [here](#).

☐ Only show options that are eligible for RDS Free Tier

### Instance Specifications

**DB Engine** mysql

**License Model** general-public-license ▼

**DB Engine Version** 5.6.27 ▼



Review the **Known Issues/Limitations** to learn about potential compatibility issues with specific database versions.

**DB Instance Class** db.t2.small — 1 vCPU, 2 GiB RAM ▼

**Multi-AZ Deployment** - Select One - ▼

**Storage Type** General Purpose (SSD) ▼

**Allocated Storage\*** 5 GB

6. On the Configure Advanced Settings page, provide additional information that RDS needs to launch the MySQL DB instance. The table shows settings for an example DB instance. Specify your DB instance information, then click Next Step.

## Configure Advanced Settings

### Network & Security



VPC*	Default VPC (vpc-5815523c) ▼
Subnet Group	default ▼
Publicly Accessible	Yes ▼
Availability Zone	No Preference ▼
VPC Security Group(s)	<div>Create new Security Group default (VPC) launch-wizard-1 (VPC) launch-wizard-2 (VPC)</div>

### Database Options

Database Name	lab3
---------------	------

Note: if no database name is specified then no initial MySQL database will be created on the DB Instance.

Database Port	3306
DB Parameter Group	default.mysql5.6 ▼
Option Group	default:mysql-5-6 ▼
Copy Tags To Snapshots	<input type="checkbox"/>
Enable Encryption	No ▼

### Backup

Please note that automated backups are currently supported for InnoDB storage engine only. If you are using MyISAM, refer to detail [here](#).

Backup Retention Period	7 ▼ days
Backup Window	No Preference ▼

### Monitoring

Enable Enhanced Monitoring	No ▼
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### Maintenance

Auto Minor Version Upgrade	Yes ▼
Maintenance Window	No Preference ▼

\* Required

Cancel

Previous

Launch DB Instance

## 7. Click Launch DB Instance to create your MySQL DB instance

▶

Step 1: [Select Engine](#)

Step 2: [Production?](#)

Step 3: [Specify DB Details](#)

Step 4: [Configure Advanced Settings](#)

✔ **Your DB Instance is being created.**

Note: Your instance may take a few minutes to launch.

### Connecting to your DB Instance

You will be unable to connect to your database instance unless you have previously authorized access on your chosen security group.

[Go to the Security Groups Page](#)

### Related AWS Services

**Amazon ElastiCache**  
Add a managed Memcached or Redis-compatible in-memory cache to speed up your database access.

[Click here to learn more and launch your Cache Cluster](#)

View Your DB Instances

Launch DB Instance

Show Monitoring ▼

Instance Actions ▼

↺

Filter: All Instances ▼

Search DB Instances... X

Viewing 1 of 1 DB Instance:

	Engine ▼	DB Instance ▼	Status ▼	CPU	Current Activity	Maintenance ▼	Class ▼	VPC ▼	Multi-AZ ▼	Repl
ⓘ	MySQL	dbinstance	creating			None	db.t2.small	vpc-5815523c	No	

8. it could take several minutes for the new instance to be available ,

The screenshot shows the AWS RDS console for a MySQL DB instance named 'mbd'. The instance is in the 'available' state. A 'Connection Information' pop-up is displayed, showing the master username 'kasun1213' and security group rules. The console also shows a table of 'Alarms and Recent Events'.

TIME (UTC+5:30)	EVENT
Jul 30 8:49 PM	Finished DB Instance backup
Jul 30 8:48 PM	Backing up DB instance
Jul 30 8:47 PM	DB instance created

**Connection Information**

Publicly Accessible: Yes  
Master Username: kasun1213

**Security Group Rules:**

Security Group	Type	Rule
rds-launch-wizard	CIDR/IP - Inbound	122.255.11.211/32

Note that only inbound TCP rules applicable to the database port are displayed.

## 9. Connecting to a DB Instance Running the MySQL Database Engine

Once Amazon RDS provisions our DB instance, we can use any standard MySQL client application or utility to connect to the instance, here I used mysql workbench.

The screenshot shows the MySQL Workbench interface. The 'MySQL Connections' panel on the left shows a local instance named 'wampmysqld64'. The 'Shortcuts' panel on the right lists various utilities and resources. The 'Models' panel at the bottom shows a model named 'sakila\_full'.

**MySQL Connections**

- Local instance wampmysqld64
  - root
  - localhost:3306

**Shortcuts**

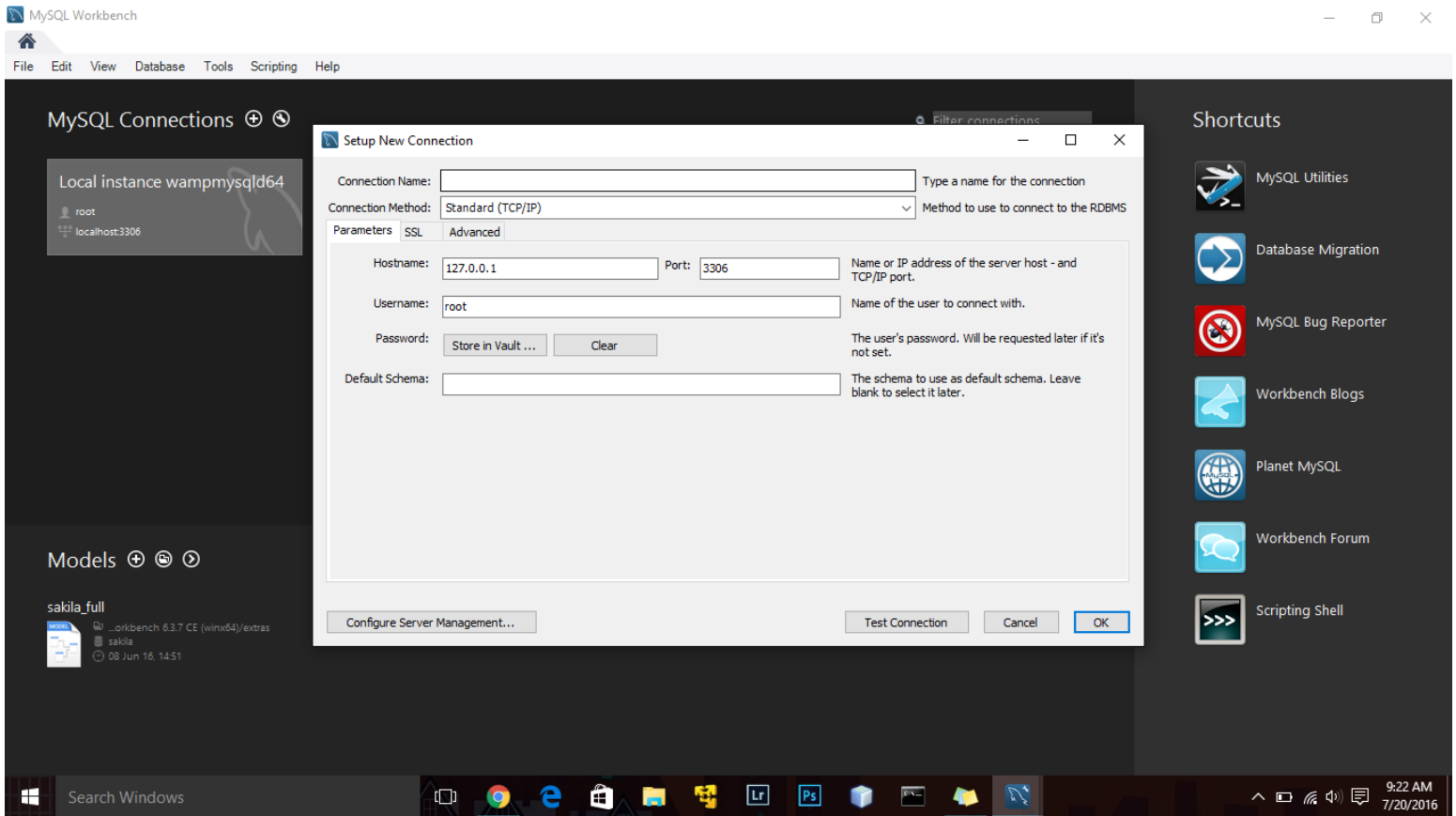
- MySQL Utilities
- Database Migration
- MySQL Bug Reporter
- Workbench Blogs
- Planet MySQL
- Workbench Forum
- Scripting Shell

**Models**

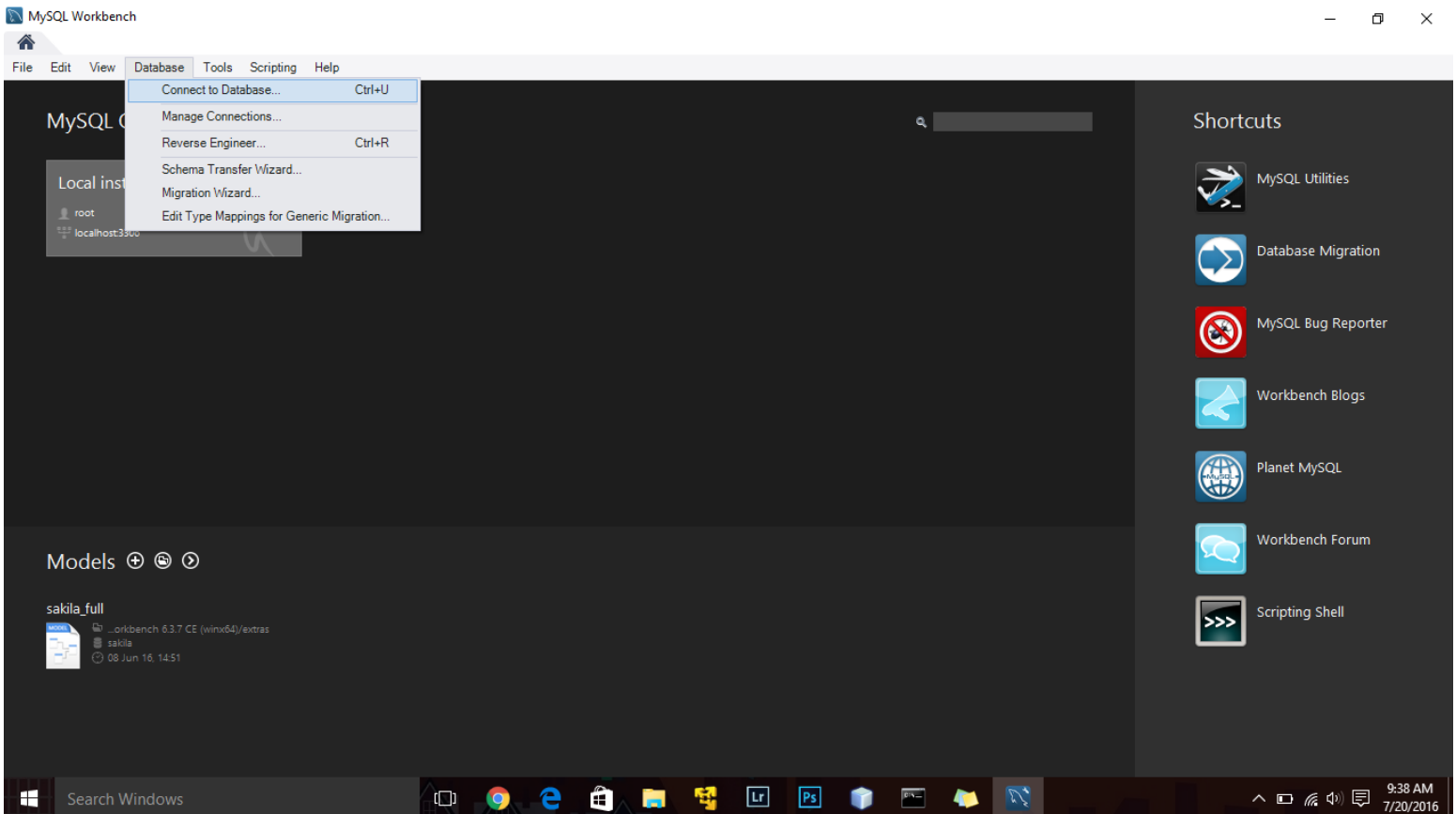
- sakila\_full
  - ...orkbench 8.3.7 CE (winx64)/extras
  - sakila
  - 08 Jun 16, 14:51



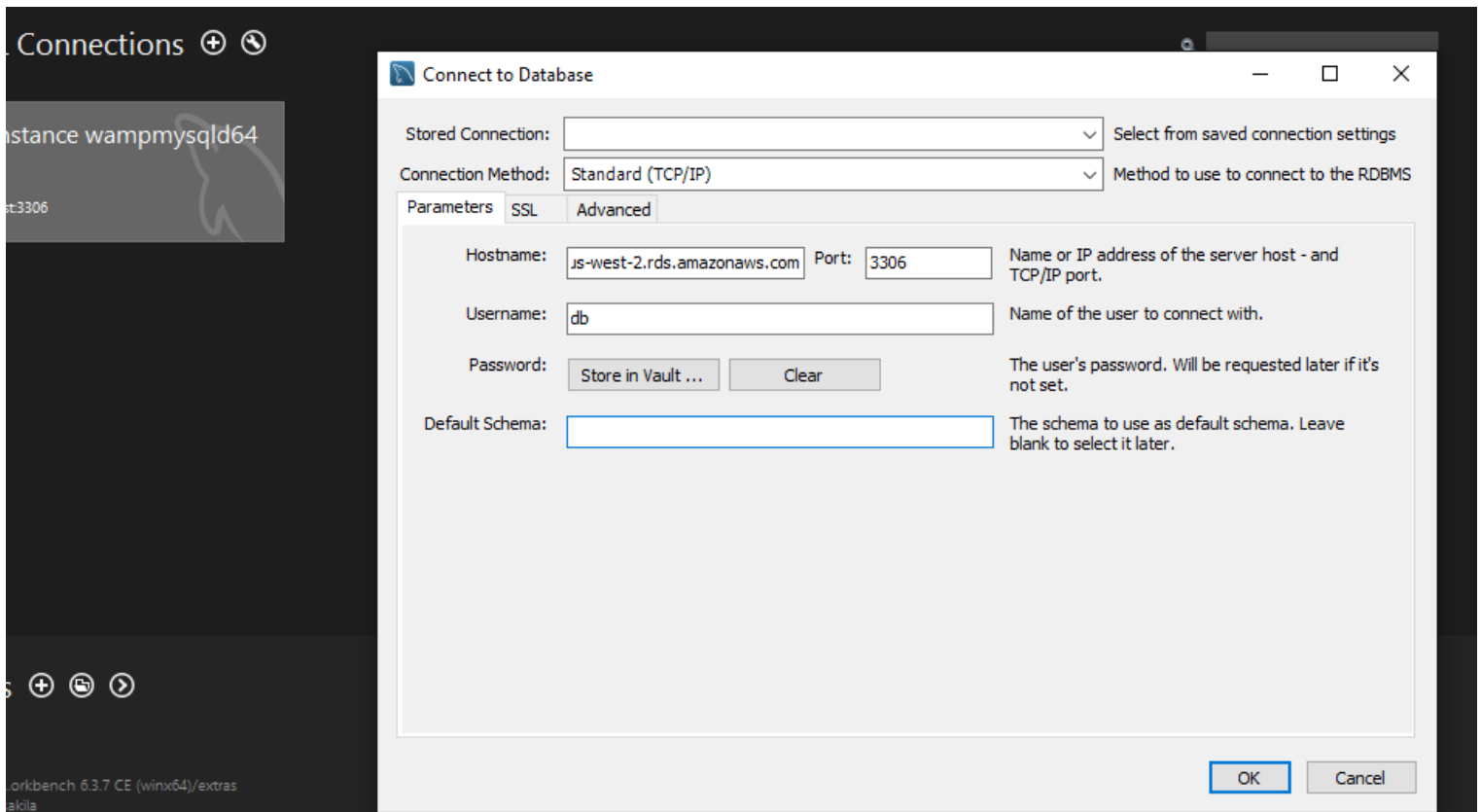
## 10. Setup the connection using host name and the port



## 11. Once the connection complete we need to connect the database, to connect go to database tag and select connect to database



12. Provide the server host name and the port address to connect



13. Once connection done we can open the SQL editor.

