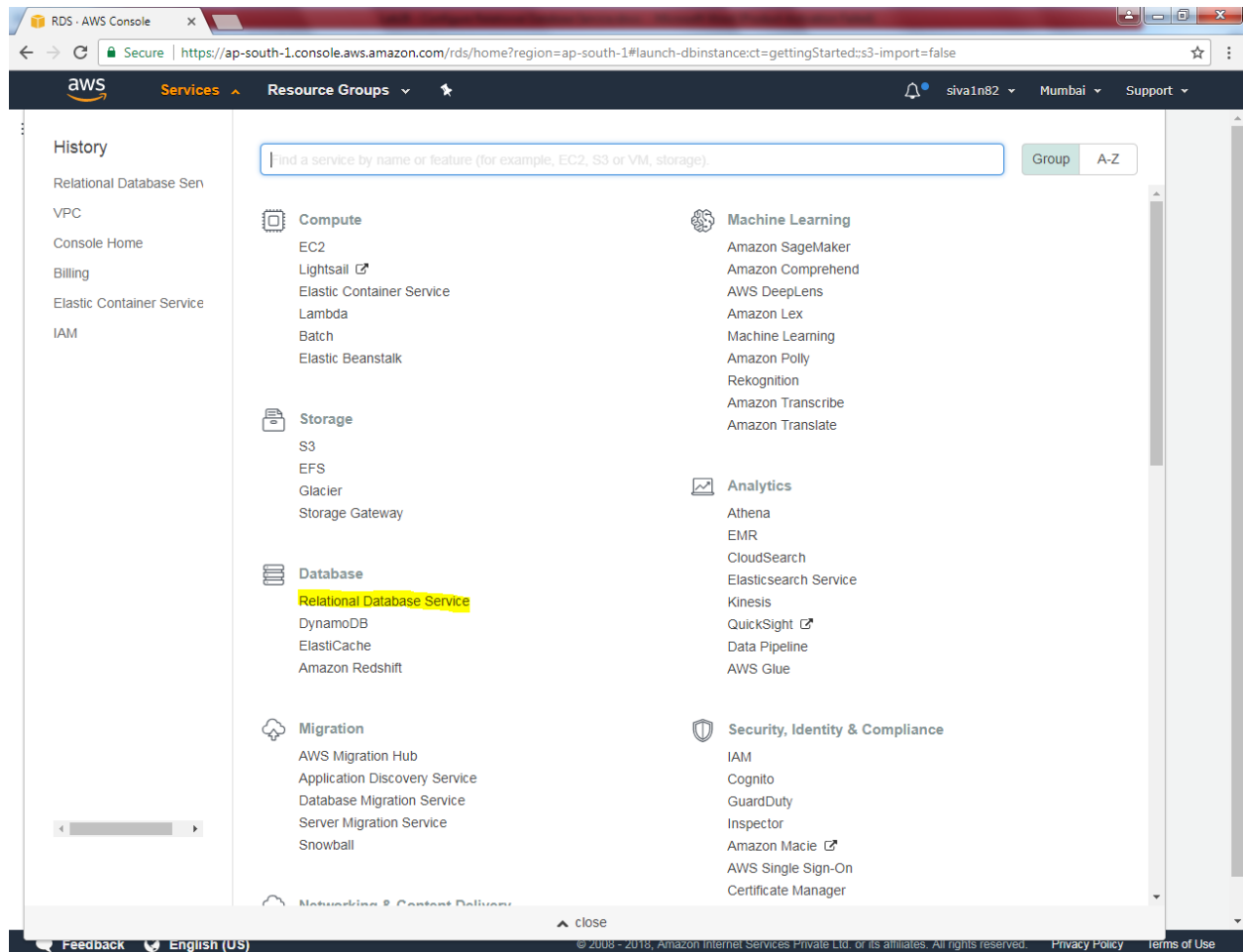


## Lab 28

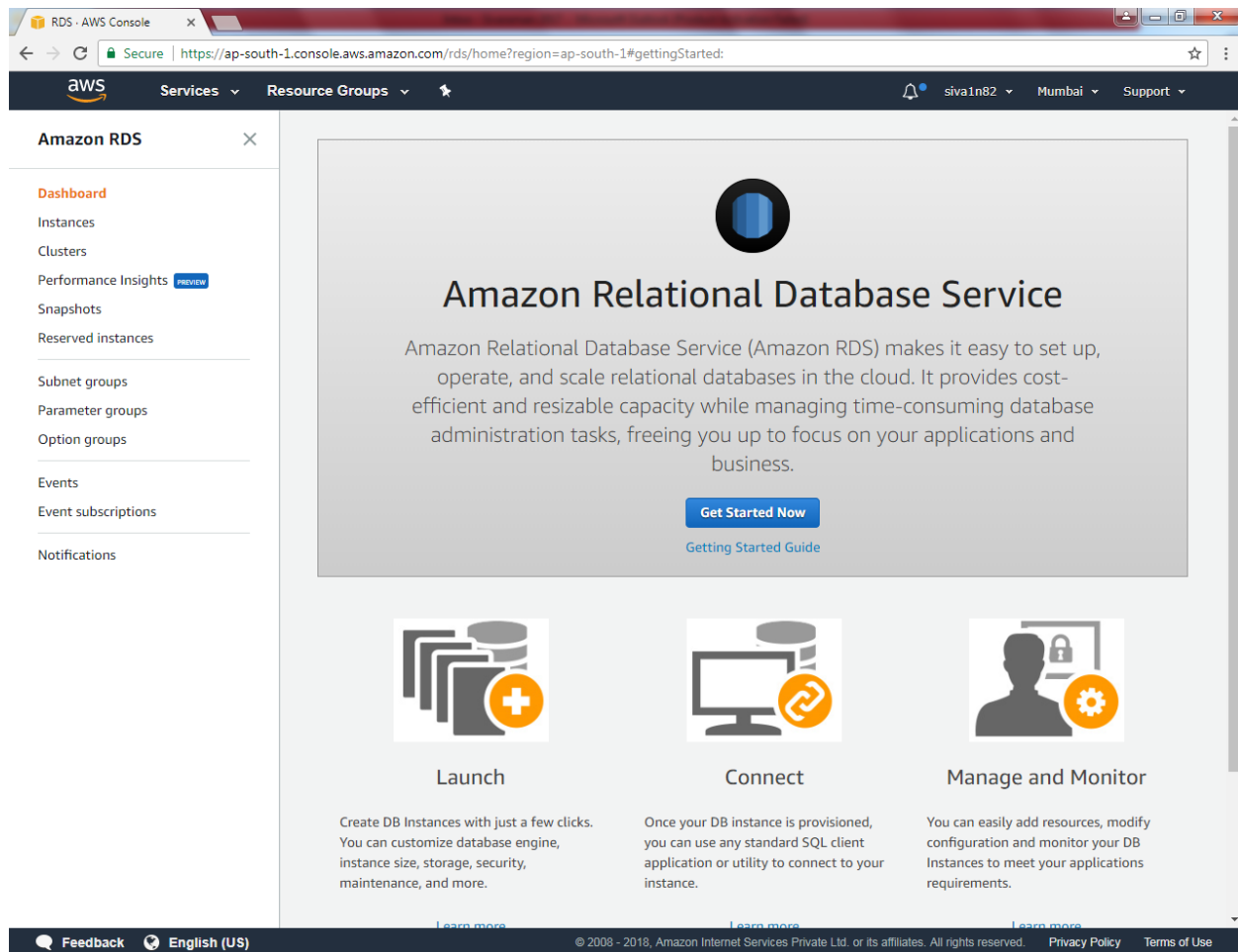
### Configuring Relational database service (RDS)

**Note: You will select only t2.micro instance type in this scenario. Otherwise charges will be applicable.**

Click “Relational Database service”.



Click “Get started now”.



The screenshot shows the Amazon RDS console dashboard. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information (siva1n82, Mumbai, Support). The left sidebar lists various RDS features: Dashboard, Instances, Clusters, Performance Insights (with a 'PREVIEW' badge), Snapshots, Reserved instances, Subnet groups, Parameter groups, Option groups, Events, Event subscriptions, and Notifications. The main content area features a large header for 'Amazon Relational Database Service' with a description and a prominent 'Get Started Now' button. Below this, three cards are displayed: 'Launch' (Create DB Instances with just a few clicks), 'Connect' (Use any standard SQL client application or utility to connect to your instance), and 'Manage and Monitor' (Easily add resources, modify configuration, and monitor your DB Instances). Each card includes a 'Learn more' link. The footer contains a 'Feedback' button, 'English (US)' language selector, and copyright information (© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.) along with 'Privacy Policy' and 'Terms of Use' links.

**Amazon RDS**

**Dashboard**

- Instances
- Clusters
- Performance Insights **PREVIEW**
- Snapshots
- Reserved instances
- Subnet groups
- Parameter groups
- Option groups
- Events
- Event subscriptions
- Notifications

## Amazon Relational Database Service

Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale relational databases in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

[Get Started Now](#)

[Getting Started Guide](#)

### Launch

Create DB Instances with just a few clicks. You can customize database engine, instance size, storage, security, maintenance, and more.

[Learn more](#)

### Connect

Once your DB instance is provisioned, you can use any standard SQL client application or utility to connect to your instance.

[Learn more](#)

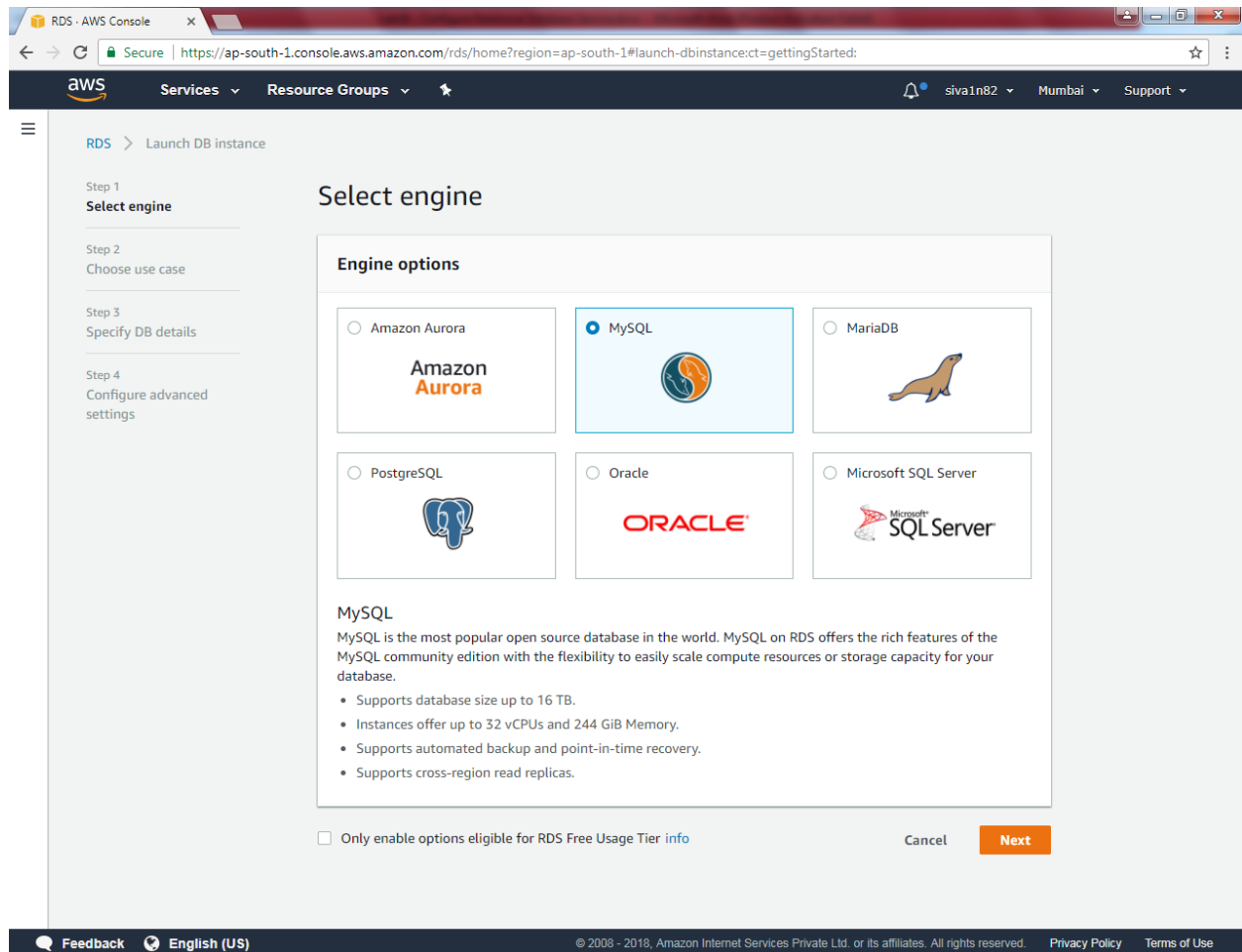
### Manage and Monitor

You can easily add resources, modify configuration and monitor your DB Instances to meet your applications requirements.

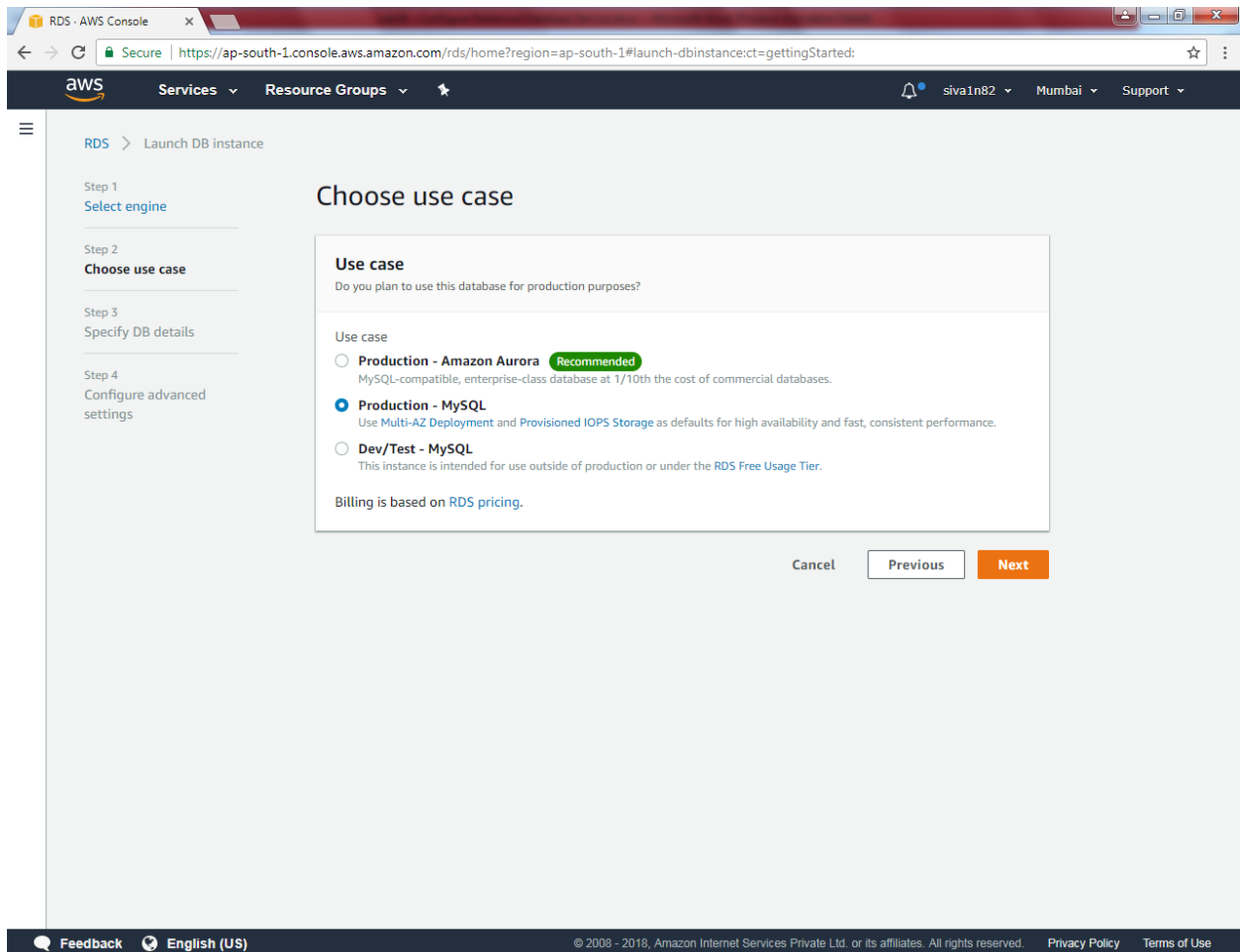
[Learn more](#)

[Feedback](#) [English \(US\)](#) © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Click “MySQL”.



Select “ Production – MySQL”



Click “Next”.

Leave mysql version by default.

RDS > Launch DB instance

Step 1  
[Select engine](#)

Step 2  
[Choose use case](#)

Step 3  
**Specify DB details**

Step 4  
[Configure advanced settings](#)

### Specify DB details

**Instance specifications**  
Estimate your monthly costs for the DB Instance using the [AWS Simple Monthly Calculator](#).

DB engine  
MySQL Community Edition

License model [info](#)  
general-public-license

DB engine version [info](#)  
mysql 5.6.37

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

DB instance class [info](#)  
db.t2.micro — 1 vCPU, 1 GiB RAM

Multi-AZ deployment [info](#)  
☐ Create replica in different zone  
Creates a replica in a different Availability Zone (AZ) to provide data redundancy, eliminate I/O freezes, and minimize latency spikes during system backups.  
☒ No

Storage type [info](#)  
General Purpose (SSD)

Allocated storage

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Select “t2.micro” otherwise charges will be applicable

Scroll down

Type DB instance name as sansbounddb

Master username: root

Master password:

spikes during system backups.

☒ No

Storage type [info](#)

General Purpose (SSD)

Allocated storage

20 GB

(Minimum: 20 GB, Maximum: 16384 GB) Higher allocated storage [may improve](#) IOPS performance.

**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.](#)**

### Settings

DB instance identifier [info](#)

Specify a name that is unique for all DB instances owned by your AWS account in the current region.

sansbounddb

DB instance identifier is case insensitive, but stored as all lower-case, as in "mydbinstance".

Master username [info](#)

Specify an alphanumeric string that defines the login ID for the master user.

root

Master Username must start with a letter. Must contain 1 to 16 alphanumeric characters.

Master password [info](#)

Confirm password [info](#)

Master Password must be at least eight characters long, as in "mypassword".

Cancel Previous **Next**

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Click "Next".

Select VPC as default VPC

Subnet as Default subnet

Public accessibility : Yes

## Create a new security Group

The screenshot shows the AWS RDS console interface for launching a DB instance. The left sidebar contains a navigation menu with the following steps:

- Step 1: Select engine
- Step 2: Choose use case
- Step 3: Specify DB details
- Step 4: **Configure advanced settings**

The main content area is titled "Configure advanced settings" and contains two sections:

### Network & Security

**Virtual Private Cloud (VPC) info**  
VPC defines the virtual networking environment for this DB instance.

Default VPC (vpc-a655a2ce)

Only VPCs with a corresponding DB subnet group are listed.

**Subnet group info**  
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

default

**Public accessibility info**

☒ **Yes**  
EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select one or more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

☐ **No**  
DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect.

**Availability zone info**

No preference

**VPC security groups**  
Security groups have rules authorizing connections from all the EC2 instances and devices that need to access the DB instance.

☒ **Create new VPC security group**

☐ Select existing VPC security groups

### Database options

Database name

Scroll down

Database options

Dbname: Sansbounddb

The screenshot shows the AWS RDS console interface. At the top, the browser address bar displays the URL: `https://ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:ct=gettingStarted:`. The console header includes the AWS logo, navigation tabs for 'Services' and 'Resource Groups', and user information for 'siva1n82' in the 'Mumbai' region. The main content area is titled 'VPC security groups' and explains that security groups authorize connections from EC2 instances and devices. It offers two options: 'Create new VPC security group' (selected with a blue radio button) and 'Select existing VPC security groups'. Below this, the 'Database options' section contains several fields: 'Database name' with the value 'sansbounddb', a note stating 'if no database name is specified then no initial MySQL database will be created on the DB Instance', 'Database port' with the value '3306', 'DB parameter group' set to 'default.mysql5.6', and 'Option group' set to 'default:mysql-5-6'. There is an unchecked checkbox for 'Copy tags to snapshots'. The 'IAM DB authentication' section shows 'Disable' selected with a blue radio button, while 'Enable IAM DB authentication' is unchecked. At the bottom, the 'Encryption' section shows 'Enable Encryption' as an unchecked option. The footer contains a 'Feedback' link, 'English (US)' language selection, copyright information for 2008-2018, and links to 'Privacy Policy' and 'Terms of Use'.

VPC security groups  
Security groups have rules authorizing connections from all the EC2 instances and devices that need to access the DB instance.

☒ Create new VPC security group  
☐ Select existing VPC security groups

**Database options**

Database name  
sansbounddb

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

Database port  
TCP/IP port the DB instance will use for application connections.  
3306

DB parameter group [info](#)  
default.mysql5.6

Option group [info](#)  
default:mysql-5-6

☐ Copy tags to snapshots

IAM DB authentication [info](#)  
☐ Enable IAM DB authentication  
Manage your database user credentials through AWS IAM users and roles.  
☒ Disable

**Encryption**

Encryption  
☐ Enable Encryption

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Scroll down

Backup 7 days



The screenshot shows the AWS RDS console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information 'siva1n82' in 'Mumbai'. The main content area is divided into three sections: 'Backup', 'Monitoring', and 'Log exports'. The 'Backup' section contains a warning about automated backups for InnoDB storage engine only, a 'Backup retention period' dropdown set to '7 days', and 'Backup window' radio buttons for 'Select window' and 'No preference' (selected). The 'Monitoring' section has 'Enhanced monitoring' radio buttons for 'Enable enhanced monitoring' (selected) and 'Disable enhanced monitoring', 'Monitoring Role' and 'Granularity' dropdowns set to 'Default' and '60 seconds' respectively, and a checked checkbox for 'I authorize RDS to create the IAM role rds-monitoring-role.'. The 'Log exports' section has a heading 'Select the log types to publish to Amazon CloudWatch Logs' and a checkbox for 'Audit log'.

**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 [info](#)  
Select the number of days that Amazon RDS should retain automatic backups of this DB instance.

7 days ▼

Backup window [info](#)

☐ Select window

☒ No preference

**Monitoring**

Enhanced monitoring

☒ Enable enhanced monitoring  
Enhanced monitoring metrics are useful when you want to see how different processes or threads use the CPU.

☐ Disable enhanced monitoring

Monitoring Role

Default ▼

Granularity

60 seconds ▼

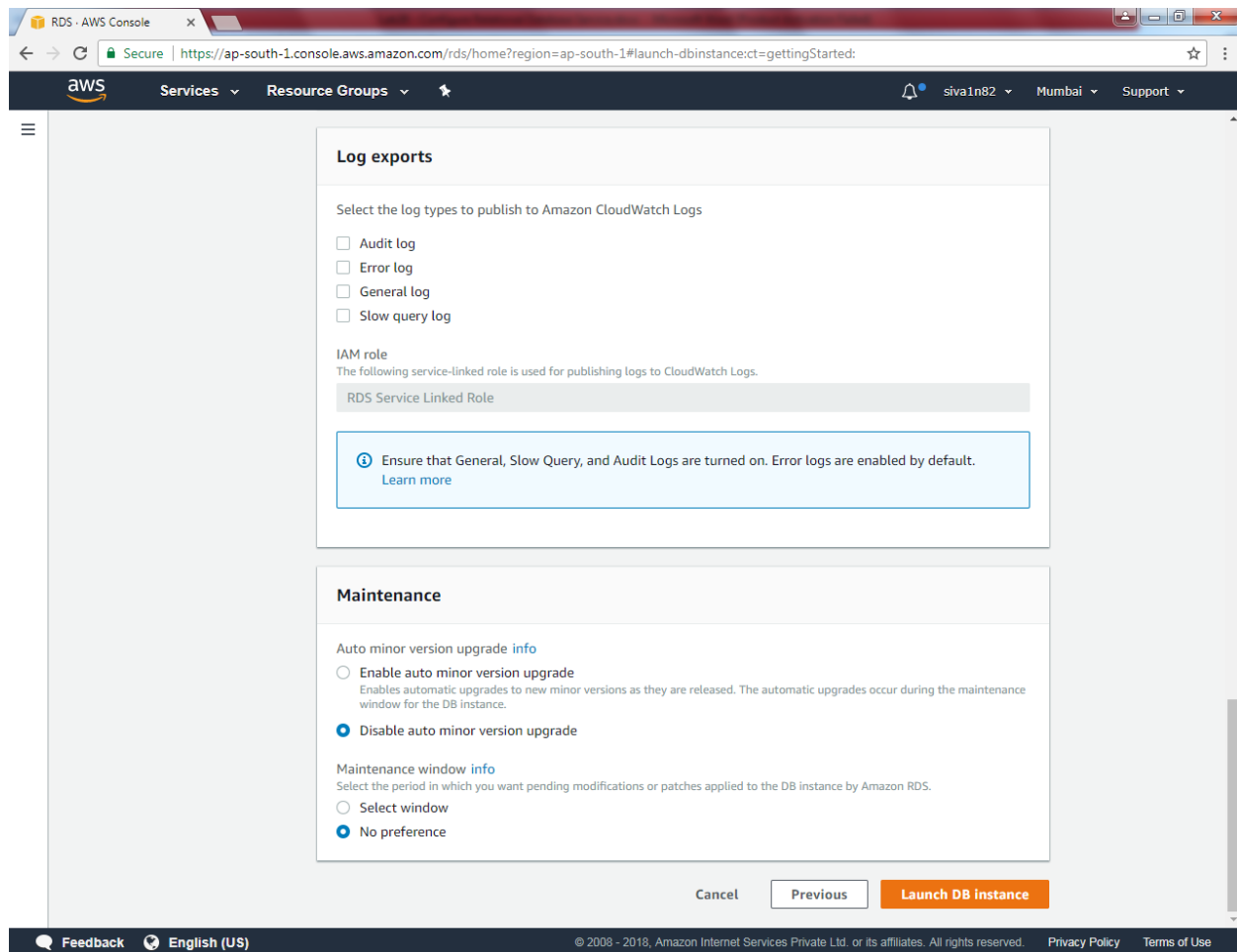
☒ I authorize RDS to create the IAM role rds-monitoring-role.

**Log exports**

Select the log types to publish to Amazon CloudWatch Logs

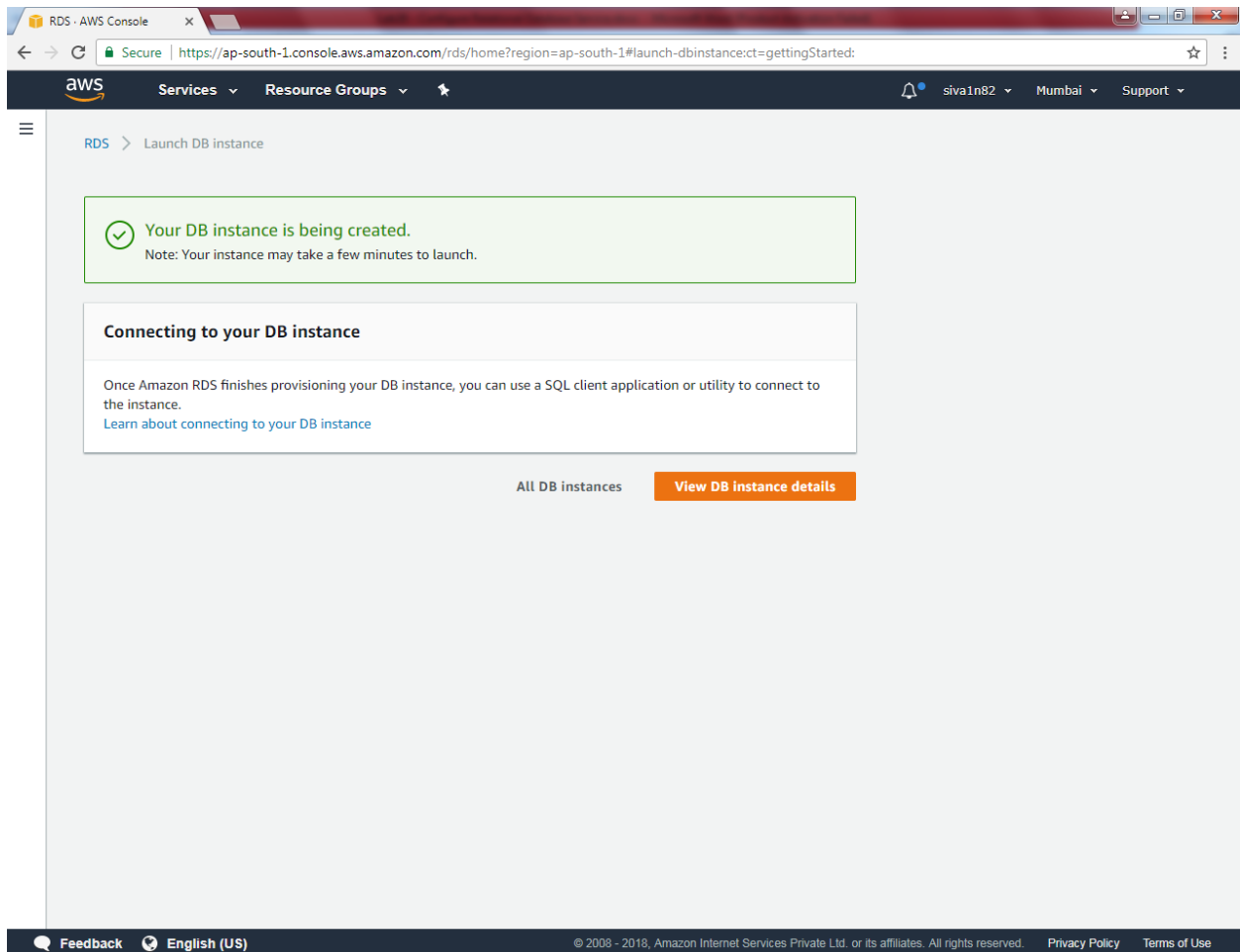
☐ Audit log

Scroll down.

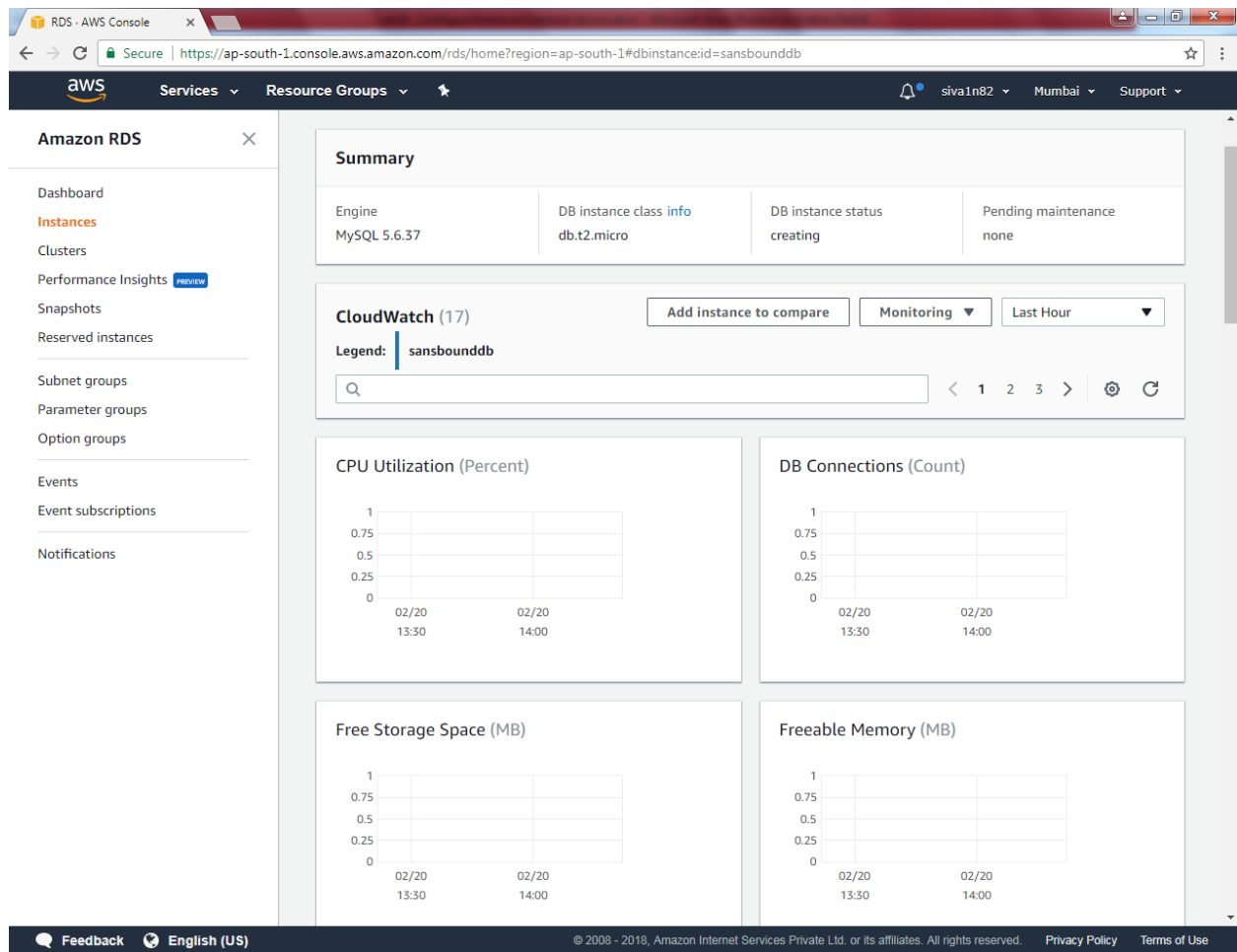


Click “Launch DB Instance”.

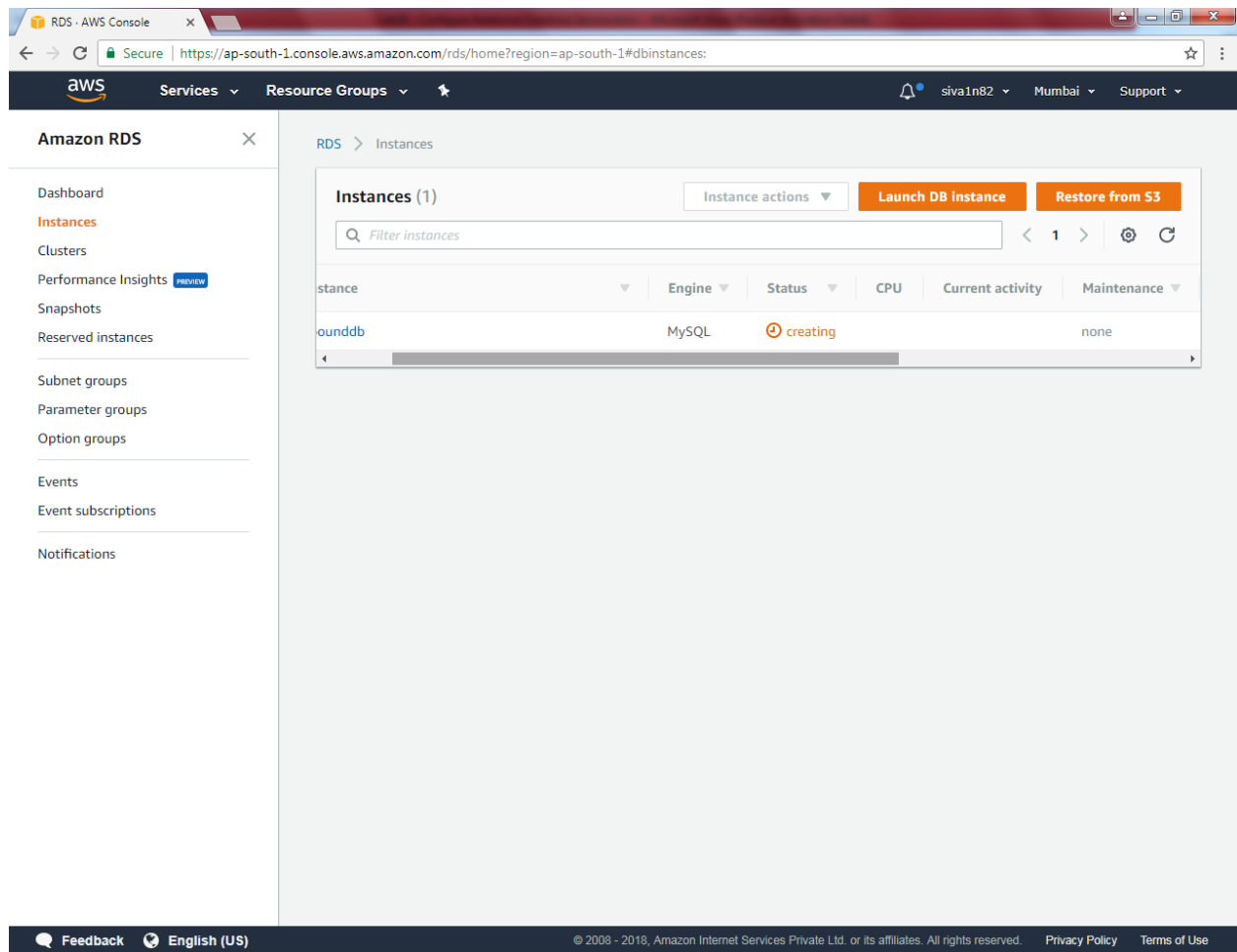
You have got a message that Your DB instance is being created.



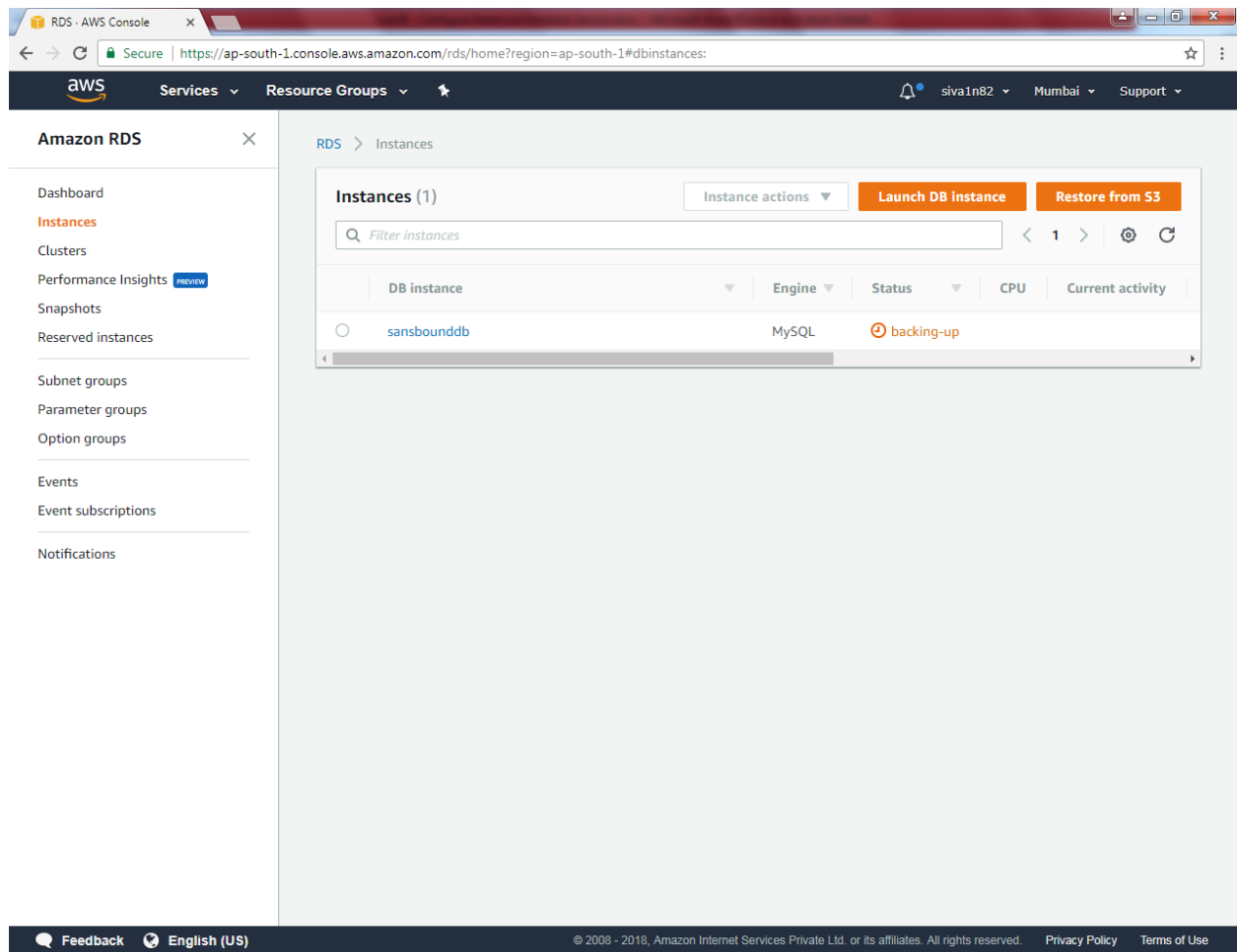
Click “View DB instance details”.



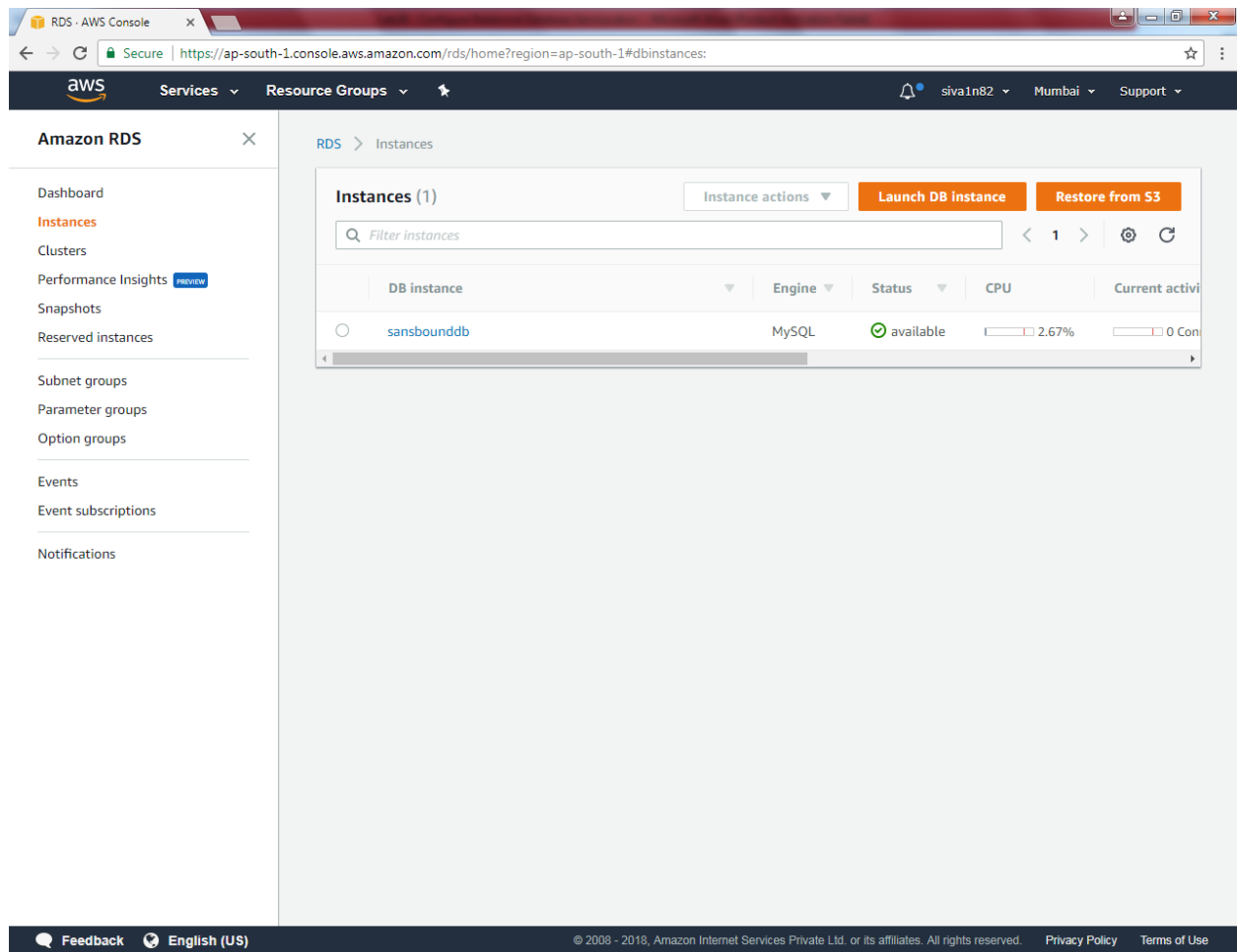
You can able to see that instance is getting created.



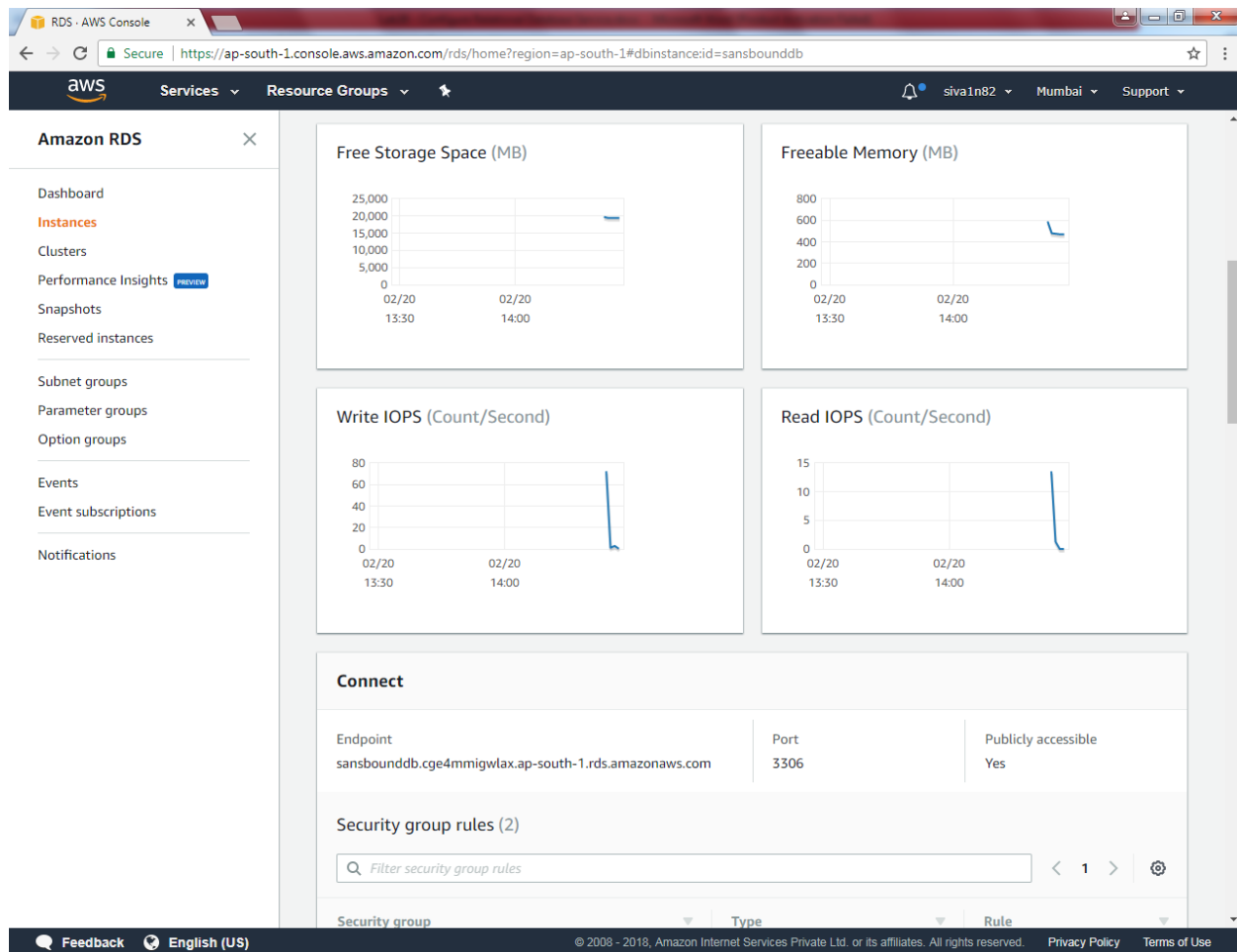
Now instance is taking backup.



Now instance is available.



Please find the URL of Endpoint as below. Kindly use the endpoint URL in MY workbench and using port details to connect.



You can able to see the security group details as below.



The screenshot displays the AWS Management Console interface for an Amazon RDS instance. The browser address bar shows the URL: <https://ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#dbinstanceid=sansbounddb>. The console header includes the AWS logo, navigation tabs for Services and Resource Groups, and user information for 'siva1n82' in the 'Mumbai' region.

The main content area is titled 'Amazon RDS' and features a sidebar with navigation links: Dashboard, Instances (highlighted), Clusters, Performance Insights (with a 'view' button), Snapshots, Reserved instances, Subnet groups, Parameter groups, Option groups, Events, Event subscriptions, and Notifications.

The instance details are organized into five columns:

- Configurations:**
  - ARN: `arn:aws:rds:ap-south-1:297111308396:db:sansbounddb`
  - Engine: MySQL 5.6.37
  - License Model: General Public License
  - Created Time: Tue Feb 20 14:24:40 GMT+530 2018
  - DB Name: sansbounddb
  - Username: root
  - Option Group: default:mysql-5-6
  - Parameter group: default.mysql5.6 (in-sync)
  - Copy tags to snapshots: No
  - Resource ID: db-MNWL5OJSCA6CYPVET67LAAB6GI
- Security and network:**
  - Availability zone: ap-south-1b
  - VPC: [vpc-a655a2ce](#)
  - Subnet group: default
  - Subnets: [subnet-6cb69e21](#), [subnet-85e817ed](#)
  - Security groups: [rds-launch-wizard-1 \(sg-cc9d38a7\)](#) (active)
  - Publicly accessible: Yes
  - Endpoint: sansbounddb.cge4mmigwla.x.ap-south-1.rds.amazonaws.com
  - Certificate authority: rds-ca-2015 (Mar 5, 2020)
- Instance and IOPS:**
  - Instance Class: db.t2.micro
  - Storage Type: General Purpose (SSD)
  - Storage: 20 GB
  - Availability and durability: DB instance status: available
  - Multi AZ: No
  - Automated backups: Enabled (7 Days)
  - Latest restore time: February 20, 2018 at 2:26:09 PM UTC+5:30
- Maintenance details:**
  - Auto minor version upgrade: No
  - Maintenance window: mon:09:40-mon:10:10 UTC (GMT)
  - Backup window: 16:39-17:09 UTC (GMT)
  - Pending Modifications: None
  - Pending maintenance: none
  - Encryption details: Encryption enabled: No

The footer of the console includes a Feedback button, the language set to English (US), and copyright information: © 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. It also links to the Privacy Policy and Terms of Use.