

AWS account setting up and SQL queries

Set up a free AWS account for your project

- Step 1: go to <http://aws.amazon.com/free/> , sign up and create a free account



-sign up



Sign In or Create an AWS Account

What is your email (phone for mobile accounts)?

E-mail or mobile number:

cs336.spring17@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?](#)



AWS Accounts Include 12 Months of Free Tier Access

Including use of Amazon EC2,
Amazon S3, and Amazon DynamoDB

Visit aws.amazon.com/free for full offer terms

-sign up



Login Credentials

Use the form below to create login credentials that can be used for AWS as well as Amazon.com.

My name is:

My e-mail address is:

Type it again:

note: this is the e-mail address that we will use to contact you about your account

Enter a new password:

Type it again:


-fill up contact information

Contact Information

☐ Company Account ☒ Personal Account

** Required Fields*

Full Name*

Country* 

Address*


City*

State / Province or Region*

Postal Code*

Phone Number*

Security Check ?


[Refresh Image](#)

Please type the characters as shown above

-fill payment information

- though Amazon requires you to enter a credit card, you can remove it afterwards

The screenshot shows the 'Payment Information' step in the AWS Free Tier sign-up process. At the top, a progress bar indicates the sequence of steps: Contact Information (completed), Payment Information (current step), Identity Verification, Support Plan, and Confirmation. The main content area is titled 'Payment Information' and includes a disclaimer about the Free Tier. Below the disclaimer is a link to 'Frequently Asked Questions'. The form fields include 'Credit/Debit Card Number', 'Expiration Date' (with month and year dropdowns), and 'Cardholder's Name'. There are two radio button options for the address: 'Use my contact address' (selected) and 'Use a new address'. A sample address is provided for the selected option. A yellow 'Continue' button is at the bottom.

Progress bar steps: Contact Information, Payment Information, Identity Verification, Support Plan, Confirmation.

Payment Information

Please enter your payment information below. You will be able to try a broad set of AWS products for free via the Free Tier. We will only bill your credit or debit card for usage that is not covered by our Free Tier.

[Frequently Asked Questions](#)

Credit/Debit Card Number

Expiration Date
02 2017

Cardholder's Name

☒ Use my contact address
(110 Frelinghuysen Road Piscataway NJ 08854-8019 US)

☐ Use a new address

-verify identify



Identity Verification

You will be called immediately by an automated system and prompted to enter the PIN number provided.

1. Provide a telephone number

Please enter your information below and click the "Call Me Now" button.

Security Check



[Refresh Image](#)

Please type the characters as shown above

sde wcx

Country Code

United States (+1)

Phone Number

Ext

Call Me Now

2. Call in progress

3. Identity verification complete



Identity Verification

You will be called immediately by an automated system and prompted to enter the PIN number provided.

1. Provide a telephone number ✓

2. Call in progress ✓

3. Identity verification complete

Your identity has been verified successfully.

Continue to select your Support Plan

-choose one support plan



Support Plan

AWS Support offers a selection of plans to meet your needs. All plans provide 24x7 access to customer service, AWS documentation, whitepapers, and support forums. For access to technical support and additional resources to help you plan, deploy, and optimize your AWS environment, we recommend selecting a support plan that best aligns with your AWS usage.

Please Select One

☒ **Basic**

Description: Customer Service for account and billing questions and access to the AWS Community Forums.

Price: Included

☐ **Developer**

Use case: Experimenting with AWS

Description: One primary contact may ask technical questions through Support Center and get a response within 12–24 hours during local business hours.

Price: Starts at \$29/month (scales based on usage)

☐ **Business**

Use case: Production use of AWS

Description: 24x7 support by phone and chat, 1-hour response to urgent support cases, and help with common third-party software. Full access to AWS Trusted Advisor for optimizing your AWS infrastructure, and access to the AWS Support API for automating your support cases and retrieving Trusted Advisor results.

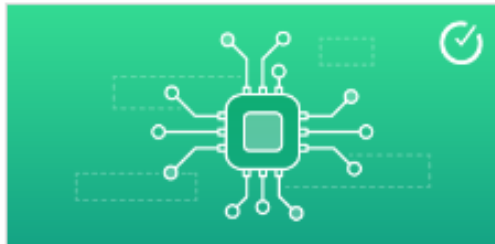
Price: Starts at \$100/month (scales based on usage)

-account created

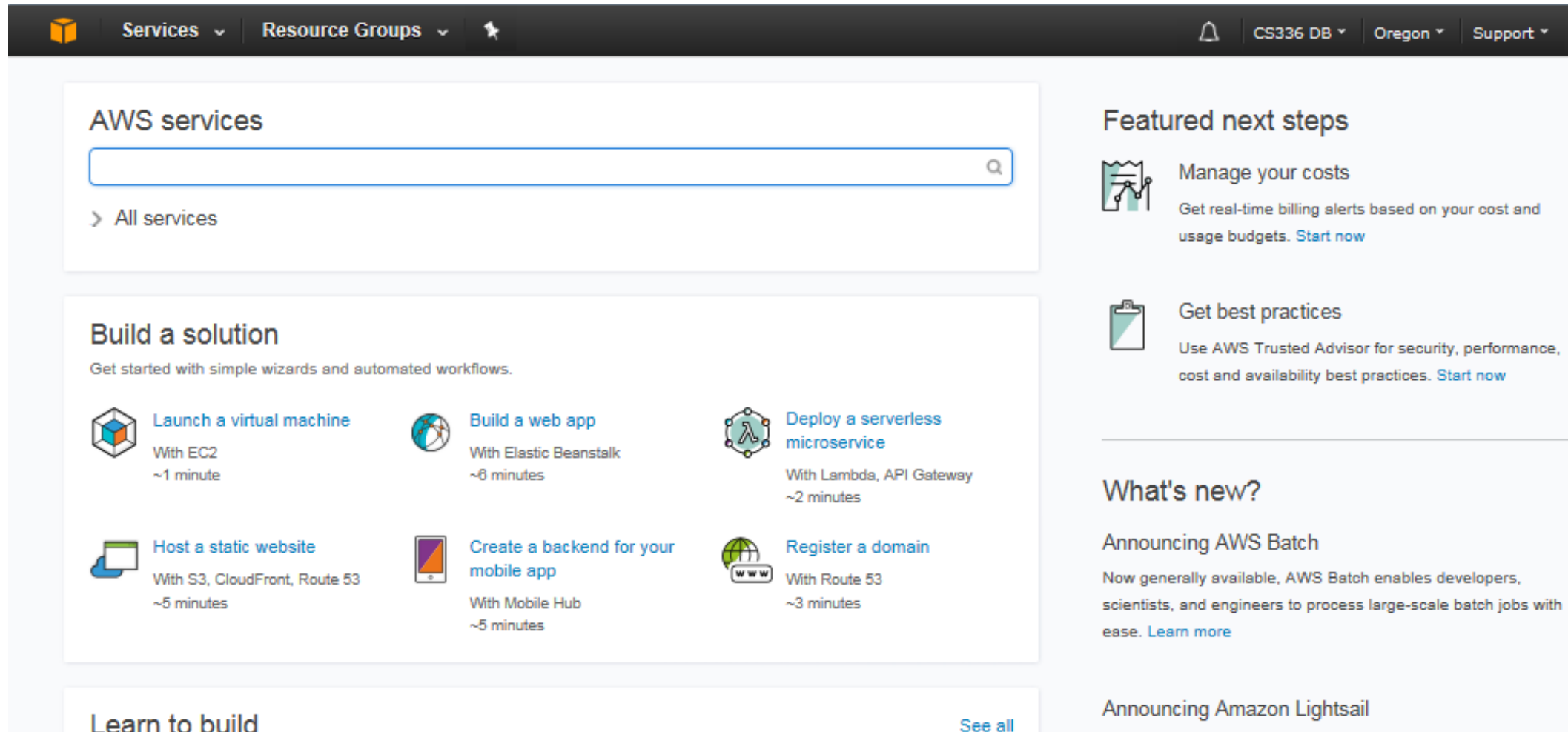
Welcome to Amazon Web Services

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.

Try AWS with a 10-Minute Tutorial



-sign in to the console



The screenshot shows the AWS Management Console interface. At the top is a dark navigation bar with the AWS logo, 'Services' and 'Resource Groups' dropdown menus, a star icon, and a notification bell. On the right side of the bar are links for 'CS336 DB', 'Oregon', and 'Support'. Below the navigation bar, the main content area is divided into two columns. The left column features a 'AWS services' section with a search bar and a link to 'All services'. Below this is a 'Build a solution' section with the subtitle 'Get started with simple wizards and automated workflows.' It contains six cards: 'Launch a virtual machine' (With EC2, ~1 minute), 'Build a web app' (With Elastic Beanstalk, ~6 minutes), 'Deploy a serverless microservice' (With Lambda, API Gateway, ~2 minutes), 'Host a static website' (With S3, CloudFront, Route 53, ~5 minutes), 'Create a backend for your mobile app' (With Mobile Hub, ~5 minutes), and 'Register a domain' (With Route 53, ~3 minutes). At the bottom of the left column is a 'Learn to build' section with a 'See all' link. The right column has a 'Featured next steps' section with two items: 'Manage your costs' (Get real-time billing alerts based on your cost and usage budgets. [Start now](#)) and 'Get best practices' (Use AWS Trusted Advisor for security, performance, cost and availability best practices. [Start now](#)). Below this is a 'What's new?' section with two announcements: 'Announcing AWS Batch' (Now generally available, AWS Batch enables developers, scientists, and engineers to process large-scale batch jobs with ease. [Learn more](#)) and 'Announcing Amazon Lightsail'.

AWS services

> All services

Build a solution

Get started with simple wizards and automated workflows.

- Launch a virtual machine**
With EC2
~1 minute
- Build a web app**
With Elastic Beanstalk
~6 minutes
- Deploy a serverless microservice**
With Lambda, API Gateway
~2 minutes
- Host a static website**
With S3, CloudFront, Route 53
~5 minutes
- Create a backend for your mobile app**
With Mobile Hub
~5 minutes
- Register a domain**
With Route 53
~3 minutes

Learn to build [See all](#)

Featured next steps

- Manage your costs**
Get real-time billing alerts based on your cost and usage budgets. [Start now](#)
- Get best practices**
Use AWS Trusted Advisor for security, performance, cost and availability best practices. [Start now](#)

What's new?

Announcing AWS Batch
Now generally available, AWS Batch enables developers, scientists, and engineers to process large-scale batch jobs with ease. [Learn more](#)

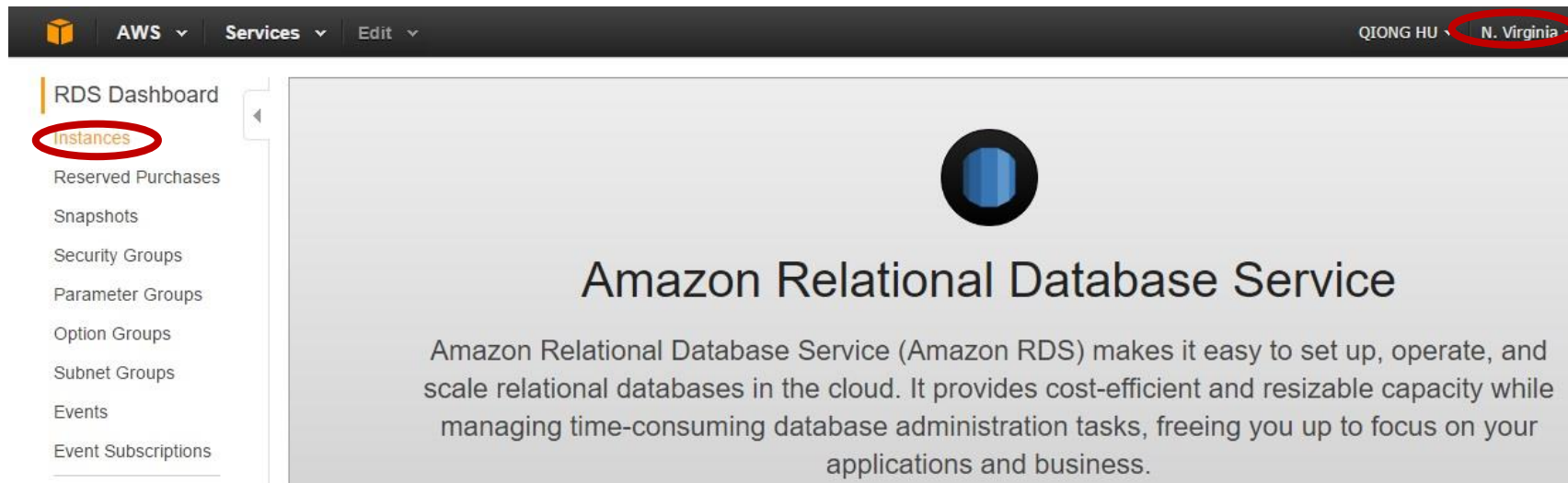
Announcing Amazon Lightsail

Set up a free AWS account for your project

- Step 2: Creating a MySQL DB Instance
 - Tutorial:
 - http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_GettingStarted.CreatingConnecting.MySQL.html
 - To be free it needs to have the following:
 - **Say NO to: Multi-AZ Deployment and Provisioned IOPS Storage**
 - **DB Instance Class: db.t2.micro**
 - **Multi-AZ Deployment: NO**
 - **Storage Type: General Purpose (SSD)**
 - **Allocated Storage: 20GB**
 - **Any more will not be free and will be charged to the credit card.**

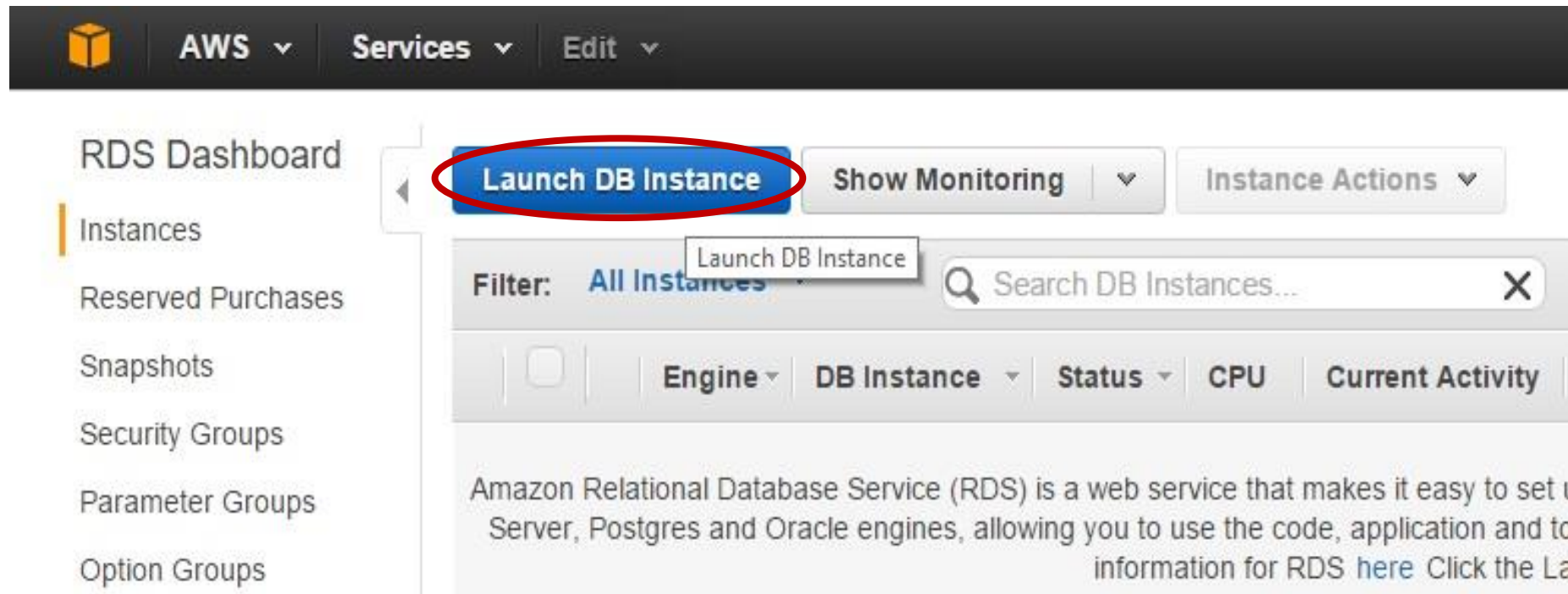
Creating a MySQL DB Instance

- Sign in to the AWS Management Console and open the Amazon RDS console at <https://console.aws.amazon.com/rds/>
- In the top right corner of the Amazon RDS console, select the region in which you want to create the DB instance.
- In the navigation pane, click **Instances**



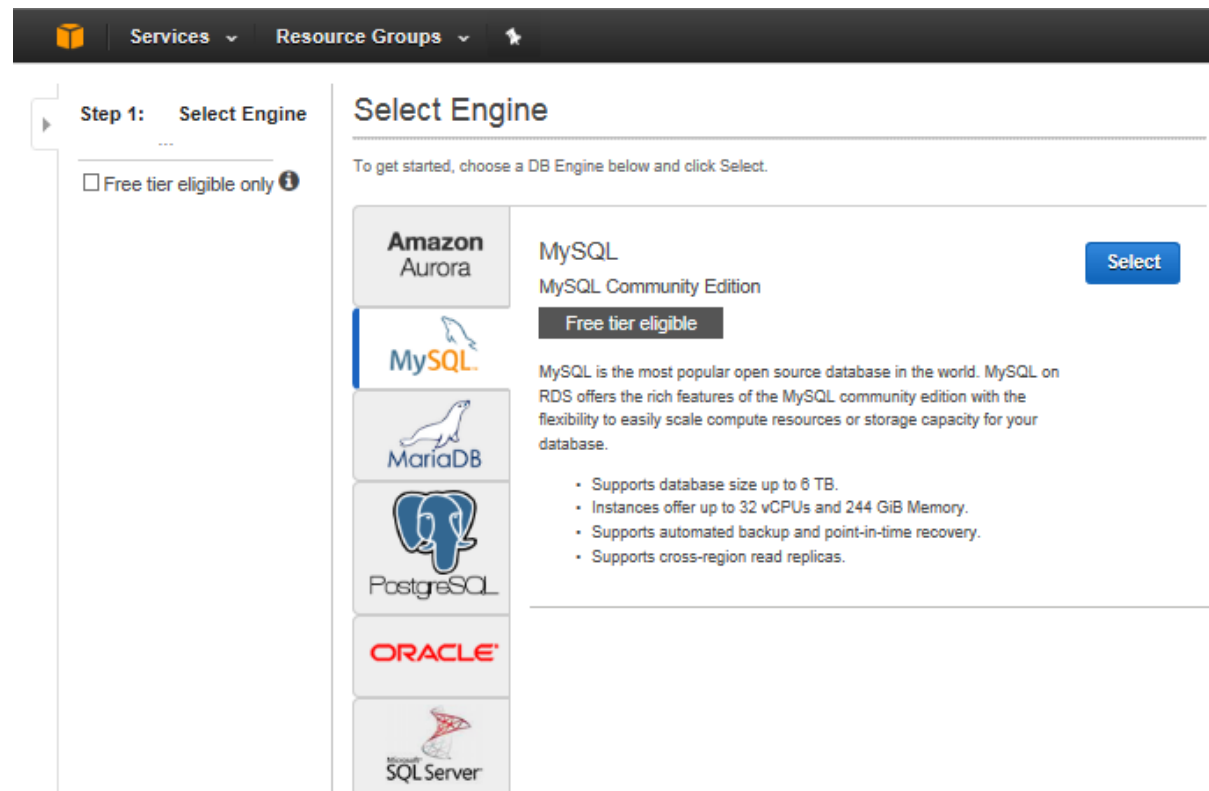
Creating a MySQL DB Instance

- Click **Launch DB Instance**. The **Launch DB Instance Wizard** opens on the **Select Engine** page.



Creating a MySQL DB Instance

- On the **Select Engine** page, click the MySQL icon and then click **Select** for the MySQL DB engine.



Creating a MySQL DB Instance

- The next step asks if you are planning to use the DB instance you are creating for production. **Choose RDS Free Usage Tier.**

The screenshot shows the AWS Management Console interface for creating a new RDS database instance. The top navigation bar includes 'Services', 'Resource Groups', and a user profile 'CS336...'. On the left, a sidebar lists the steps: 'Step 1: Select Engine', 'Step 2: Production?' (the current step), 'Step 3: Specify DB Details', and 'Step 4: Configure Advanced Settings'. The main content area is titled 'Do you plan to use this database for production purposes?'. It is divided into two columns: 'Production' and 'Dev/Test'. Under 'Production', there are two options: 'Amazon Aurora' (marked 'Recommended') and 'MySQL'. The 'MySQL' option is selected in the 'Dev/Test' column. The 'MySQL' option in the 'Dev/Test' column is highlighted with a blue border and includes the text: 'This instance is intended for use outside of production or under the RDS Free Usage Tier.' At the bottom, there are three buttons: 'Cancel', 'Previous', and 'Next Step'.

Services ▾ Resource Groups ▾

Step 1: [Select Engine](#)

Step 2: **Production?**

Step 3: [Specify DB Details](#)

Step 4: [Configure Advanced Settings](#)

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](#).

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

[Cancel](#) [Previous](#) [Next Step](#)

Creating a MySQL DB Instance

- specify your DB instance information.

The screenshot shows the 'Specify DB Details' step in the AWS Management Console. On the left, a navigation pane lists four steps: 'Step 1: Select Engine', 'Step 2: Production?', 'Step 3: Specify DB Details' (which is the active step), and 'Step 4: Configure Advanced Settings'. Below the steps, there are two informational messages: one stating 'Your current selection is eligible for the free tier.' with a 'Learn More.' link, and another prompting to 'Estimate your monthly costs for the DB Instance using the RDS Instance Cost Calculator.' The main content area is titled 'Specify DB Details' and includes a 'Free Tier' section with a description of the Amazon RDS Free Tier and a checkbox labeled 'Only show options that are eligible for RDS Free Tier' which is checked. Below this is the 'Instance Specifications' section with several dropdown menus and input fields: 'DB Engine' is set to 'mysql', 'License Model' is 'general-public-license', 'DB Engine Version' is '5.6.27', 'DB Instance Class' is 'db.t2.micro — 1 vCPU, 1 GiB RAM', 'Multi-AZ Deployment' is 'No', 'Storage Type' is 'General Purpose (SSD)', and 'Allocated Storage*' is '20 GB'. A blue callout box with a speech bubble icon contains the text: 'Review the Known Issues/Limitations to learn about potential compatibility issues with specific database versions.'

Settings

The 'Settings' section contains four input fields, each with an asterisk indicating it is required: 'DB Instance Identifier*', 'Master Username*', 'Master Password*', and 'Confirm Password*'. Each field is represented by a rectangular text input box.

In this step, you need to create the **master username** and **master password**. Please remember this information, for it will be used in the connecting phase.

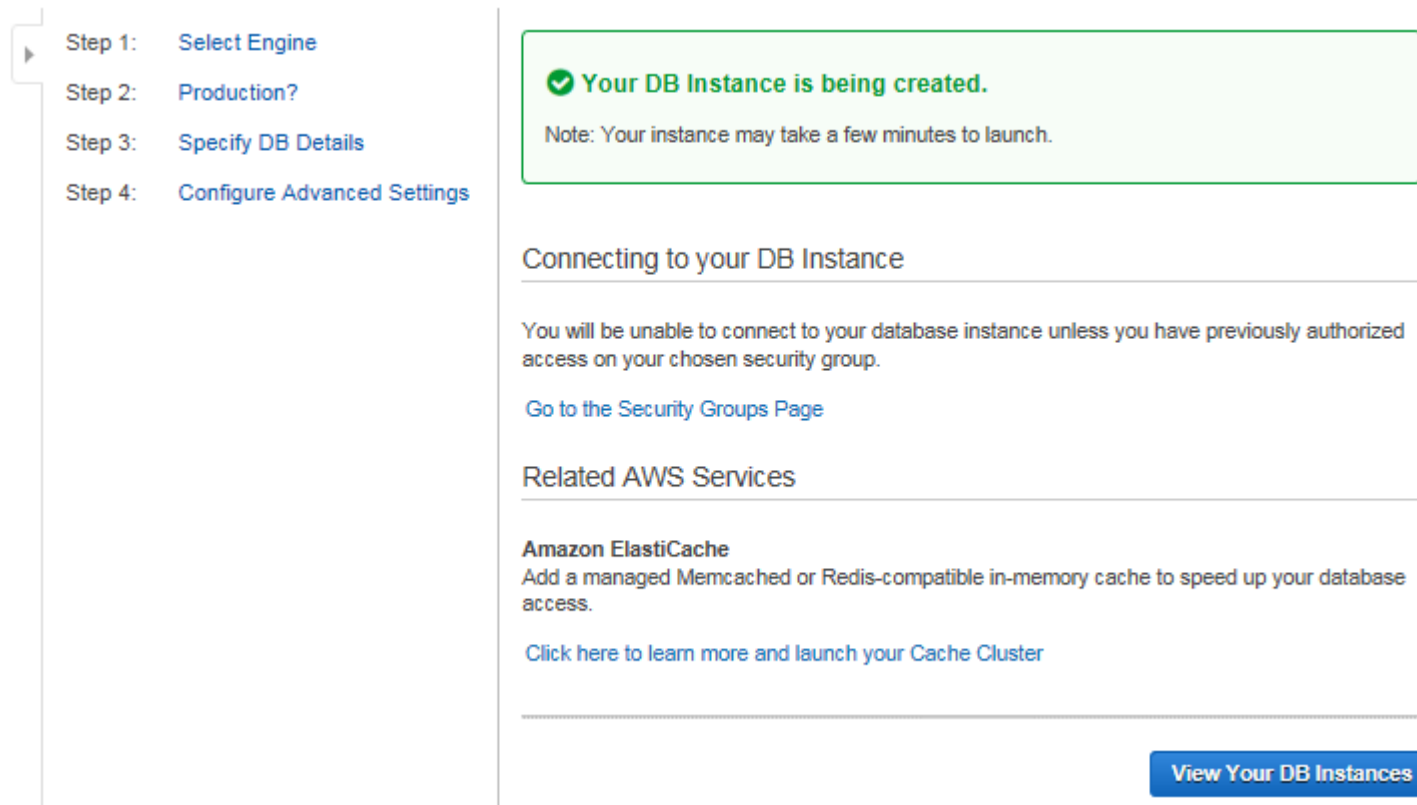
Creating a MySQL DB Instance

- On the **Configure Advanced Settings** page, provide additional information that RDS needs to launch the MySQL DB instance. Create a new VPC security group.

The screenshot shows the AWS Management Console interface for configuring a MySQL DB instance. The top navigation bar includes 'Services' and 'Resource Groups'. On the left, a sidebar lists four steps: 'Step 1: Select Engine', 'Step 2: Production?', 'Step 3: Specify DB Details', and 'Step 4: Configure Advanced Settings', with the fourth step being the active one. The main content area is titled 'Configure Advanced Settings' and is divided into two sections: 'Network & Security' and 'Database Options'. In the 'Network & Security' section, there are dropdown menus for 'VPC*' (set to 'Default VPC (vpc-41532527)'), 'Subnet Group' (set to 'default'), 'Publicly Accessible' (set to 'Yes'), and 'Availability Zone' (set to 'No Preference'). The 'VPC Security Group(s)' dropdown is open, showing 'Create new Security Group' as the selected option, with 'default (VPC)' listed below it. The 'Database Options' section includes a 'Database Name' text input field and a 'Database Port' dropdown menu set to '3306'. A note at the bottom of the 'Database Options' section states: 'Note: if no database name is specified then no initial MySQL database will be created on the DB Instance.'

Creating a MySQL DB Instance

- Click **Launch DB Instance** to create your MySQL DB instance.



The screenshot displays the AWS Management Console interface for creating a MySQL DB instance. On the left, a vertical sidebar lists four steps: 'Step 1: Select Engine', 'Step 2: Production?', 'Step 3: Specify DB Details', and 'Step 4: Configure Advanced Settings'. The main content area features a green success message: '✓ Your DB Instance is being created.' with a note: 'Note: Your instance may take a few minutes to launch.' Below this, a section titled 'Connecting to your DB Instance' explains that access requires authorization and provides a link to 'Go to the Security Groups Page'. Another section, 'Related AWS Services', promotes 'Amazon ElastiCache' with a link to 'Click here to learn more and launch your Cache Cluster'. At the bottom right, a blue button labeled 'View Your DB Instances' is visible.

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](#)

Creating a MySQL DB Instance

- View your db instances
 - On the RDS console, the new DB instance appears in the list of DB instances. The DB instance will have a status of **creating** until the DB instance is created and ready for use. When the state changes to **available**, you can connect to a database on the DB instance.

The screenshot displays the AWS RDS console interface. At the top, there's a navigation bar with 'Services', 'Resource Groups', and user information. The left sidebar shows the 'RDS Dashboard' with a list of navigation items: Instances, Clusters, Reserved Purchases, Snapshots, Security Groups, Parameter Groups, External Licenses, Option Groups, Subnet Groups, and Events. The main content area is titled 'Launch DB Instance' and includes a 'Show Monitoring' dropdown and 'Instance Actions' button. Below this is a filter section with 'All Instances' selected and a search bar. A table lists the DB instances, showing one instance named 'cs336-test' with engine 'MySQL' and status 'creating'. The table columns include Engine, DB Instance, Status, CPU, Current Activity, Maintenance, Class, VPC, Multi-AZ, and Replication Role. Below the table, there's a section for 'Endpoint: Not available yet'. At the bottom, there are two panels: 'Alarms and Recent Events' showing 'No Recent Events' and 'Monitoring' showing metrics for CPU and Read IOPS, both with 'No Data'.

Engine	DB Instance	Status	CPU	Current Activity	Maintenance	Class	VPC	Multi-AZ	Replication Role
MySQL	cs336-test	creating			None	db.t2.micro	vpc-41532527	No	

Services

Resource Groups

RDS Dashboard

Instances

Clusters

Reserved Purchases

Snapshots

Security Groups

Parameter Groups

External Licenses

Option Groups

Subnet Groups

Events

Event Subscriptions

Notifications

Launch DB Instance

Show Monitoring

Instance Actions

Filter: All Instances

Search DB Instances...

	Engine	DB Instance	Status	CPU	Current Activity	Maintenance	Class
<input checked="" type="checkbox"/>	MySQL	cs336-test	available	0.83%	0 Connections	None	db.t2.micro

Endpoint

cs336-test.cagjeuiliescy.us-east-1.rds.amazonaws.com:3306

authorized

Alarms and Recent Events

TIME (UTC-5)	EVENT
Feb 20 6:43 PM	Finished DB Instance backup
Feb 20 6:38 PM	Backing up DB instance
Feb 20 6:37 PM	DB instance created
Feb 20 6:37 PM	DB instance restarted

Monitoring

	CURRENT VALUE
CPU	0.83%
Memory	546 MB
Storage	19,500 MB

Instance Actions

Tags

Logs

Connection Information

Publicly Accessible Yes

Master Username master

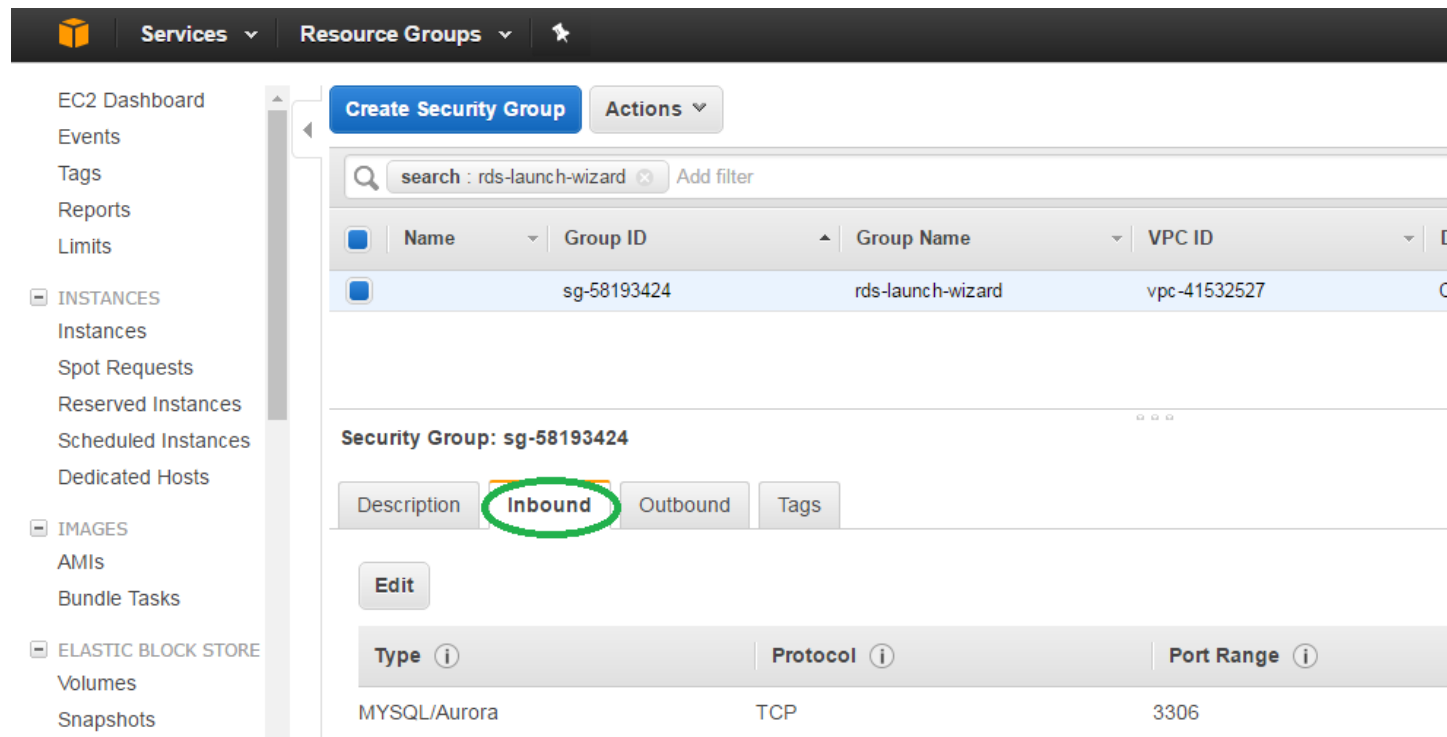
Security Group Rules:

Security Group	Type	Rule
rds-launch-wizard	CIDR/IP - Inbound	128.6.37.93/32

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

Creating a MySQL DB Instance

- Check the VPC security group created by the launch wizard ([Page 17](#)).
 - The details pane at the bottom of the console window displays the details for the security group, and tabs for working with inbound and outbound rules. Click the **Inbound Rules** tab.



The screenshot shows the AWS Management Console interface for creating a security group. The left sidebar contains navigation links for EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES, IMAGES, and ELASTIC BLOCK STORE. The main content area shows the 'Create Security Group' page with a search bar and a table of security groups. The 'Inbound' tab is selected and highlighted with a green circle. Below the tabs, there is an 'Edit' button and a table showing the security group details.

Name	Group ID	Group Name	VPC ID
sg-58193424	sg-58193424	rds-launch-wizard	vpc-41532527

Security Group: sg-58193424

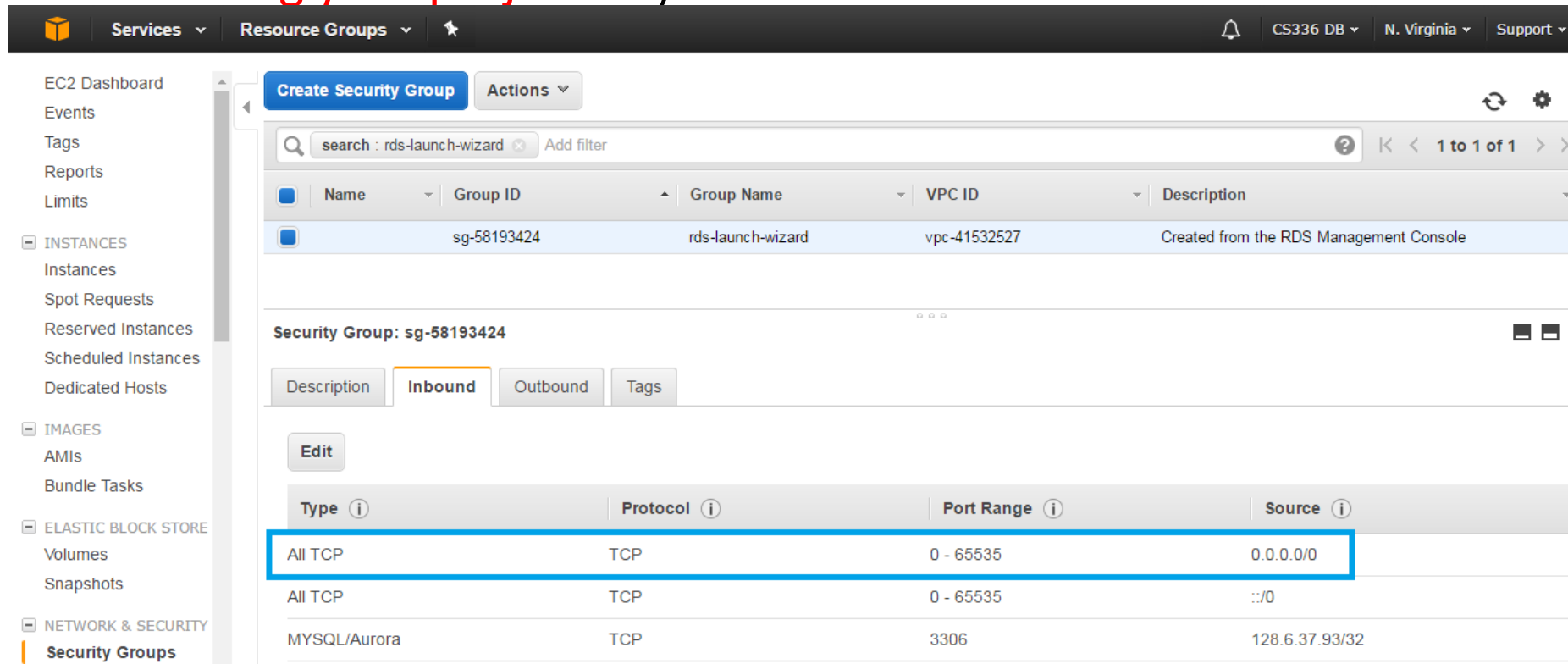
Description Inbound Outbound Tags

Edit

Type	Protocol	Port Range
MySQL/Aurora	TCP	3306

Creating a MySQL DB Instance

- On the **Inbound Rules** tab, click **Edit**. Select **Custom TCP Rule** from the **Type** list. Type your port range in the **PortRange** text box, and then type a CIDR value (IP address) in the **Source** text box (**make sure it can be connected from anywhere before submitting your project url**).



The screenshot shows the AWS Management Console interface for creating a security group. The left sidebar contains navigation links for EC2 Dashboard, INSTANCES, IMAGES, ELASTIC BLOCK STORE, and NETWORK & SECURITY. The main content area shows the 'Create Security Group' wizard with the 'Inbound' tab selected. A table of inbound rules is displayed, with the first rule highlighted.

Type	Protocol	Port Range	Source
All TCP	TCP	0 - 65535	0.0.0.0/0
All TCP	TCP	0 - 65535	:::0
MYSQL/Aurora	TCP	3306	128.6.37.93/32

Set up a free AWS account for your project

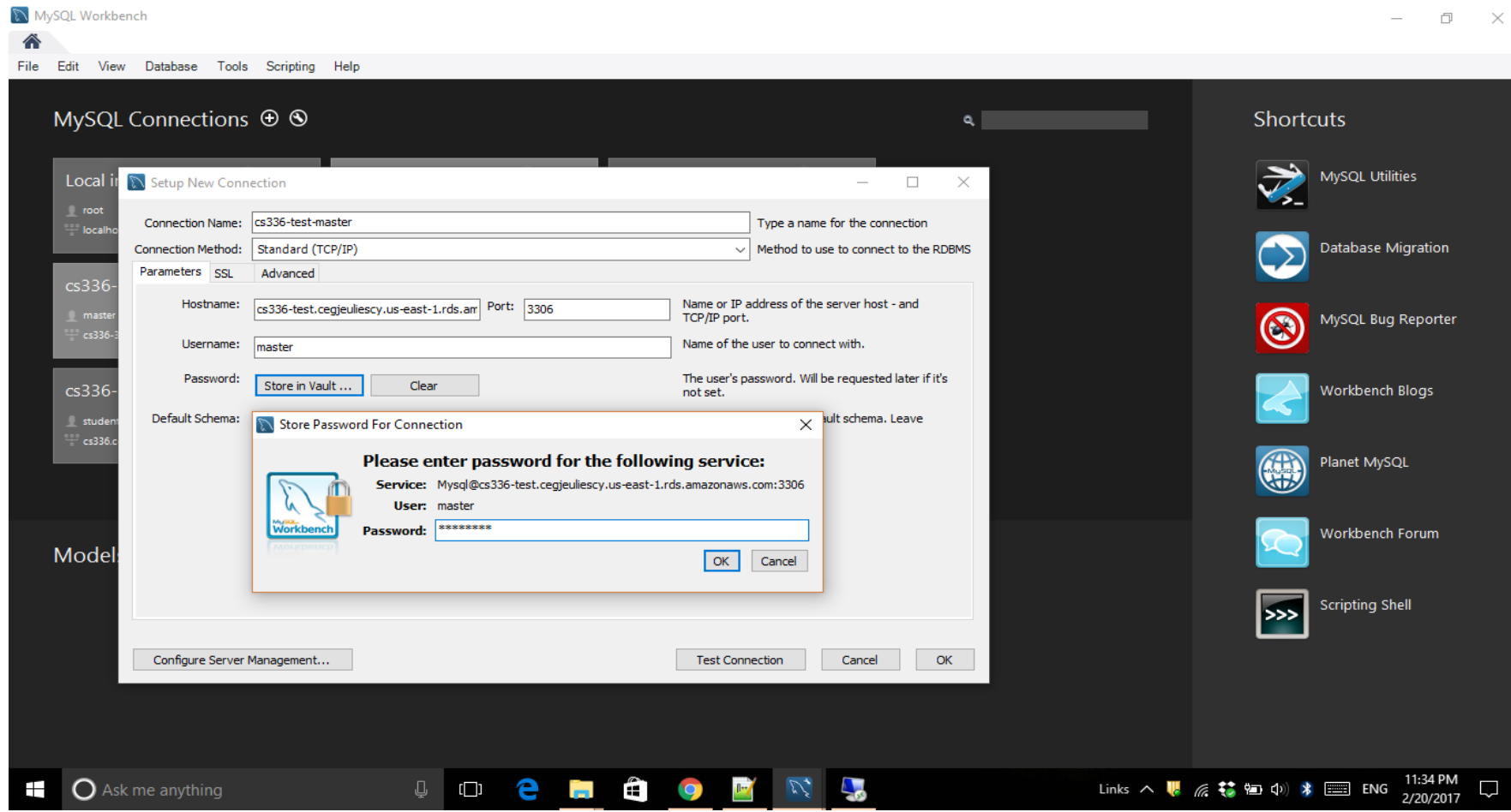
- Step 3: Connecting to a DB Instance Running the MySQL Database Engine
 - Tutorial:
http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_ConnectToInstance.html
 - Once Amazon RDS provisions your DB instance, you can use **any standard MySQL client application or utility to connect to the instance**. In the connection string, you specify the DNS address from the DB instance endpoint as the host parameter, and specify the port number from the DB instance endpoint as the port parameter.

Set up a free AWS account for your project

- Step 3: Connecting to a DB Instance Running the MySQL Database Engine
 - If an endpoint value is `myinstance.123456789012.us-east-1.rds.amazonaws.com:3306`, then you would specify the following values in a MySQL connection string:
 - For `host` or `host name`, specify `myinstance.123456789012.us-east-1.rds.amazonaws.com`
 - For `port`, specify `3306`

Set up a free AWS account for your project

- Step 3: Connecting to a DB Instance Running MySQL Database Engine.



File Edit View Database Tools Scripting Help

MySQL Connections

Local instances

- root
- localhost
- cs336-master
- cs336-slave
- cs336-slave2
- student
- cs336-c

Setup New Connection

Connection Name: Type a name for the connection

Connection Method: Method to use to connect to the RDBMS

Parameters SSL Advanced

Hostname: Port: Name or IP address of the server host - and TCP/IP port.

Username: user to connect with.

Password: password. Will be requested later if it's

Default Schema: to use as default schema. Leave empty to select it later.

MySQL Workbench

Successfully made the MySQL connection

Information related to this connection:

Host: cs336-test.cejjeuliescy.us-east-1.rds.amazonaws.com
Port: 3306
User: master
SSL: not enabled

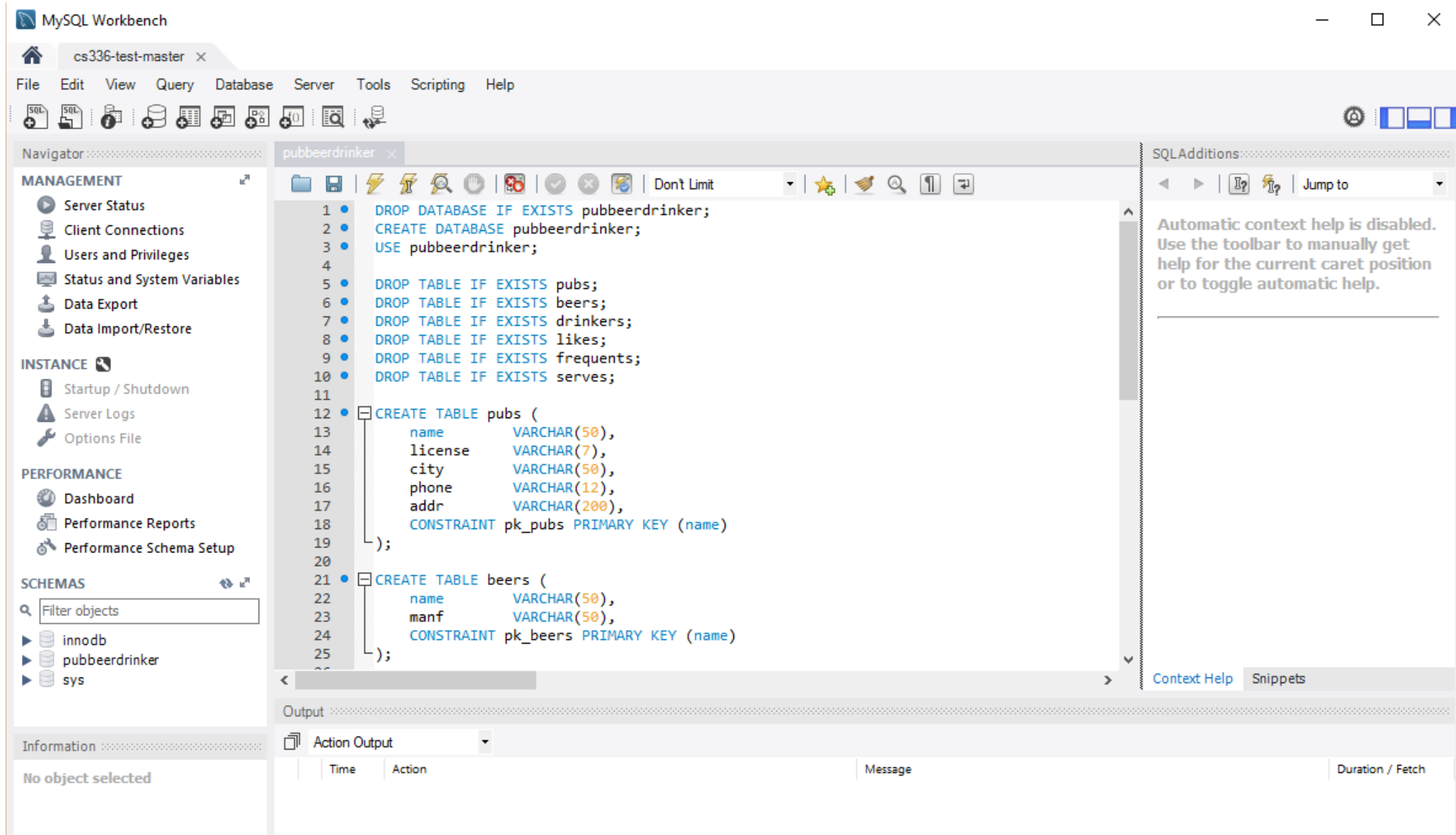
A successful MySQL connection was made with the parameters defined for this connection.

OK

Configure Server Management... Test Connection Cancel OK

Shortcuts

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



Now you are ready to use it!!!