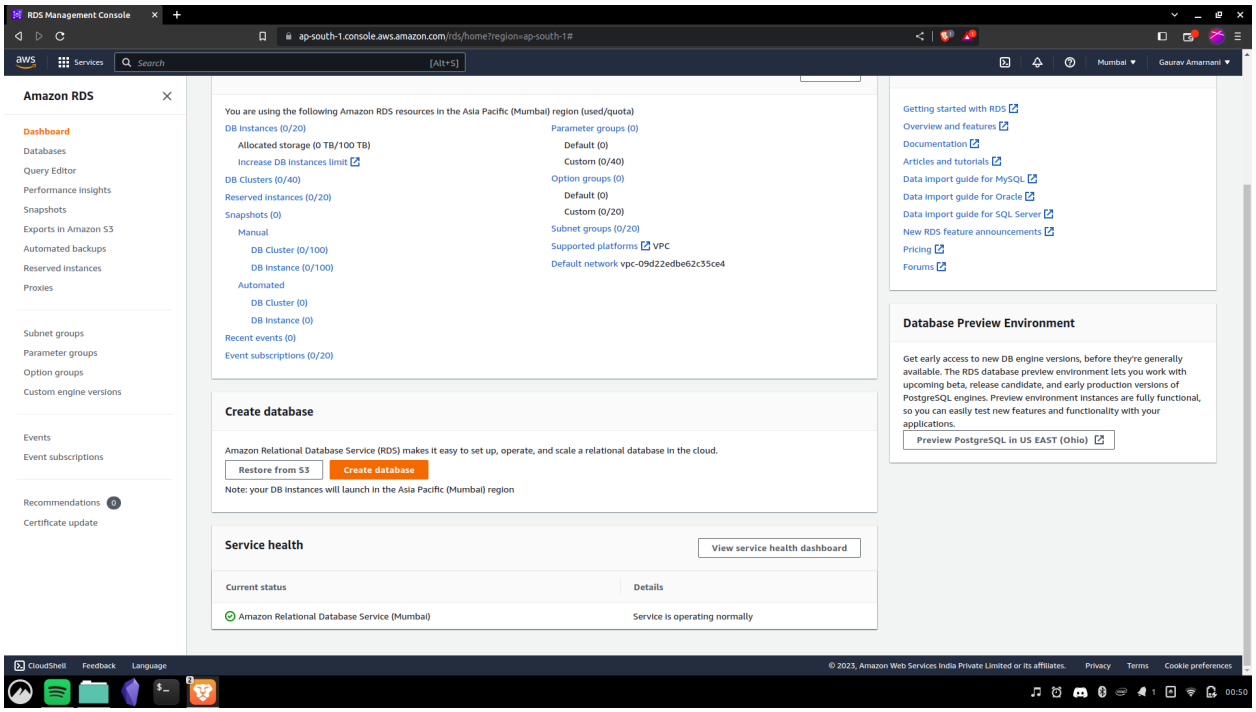
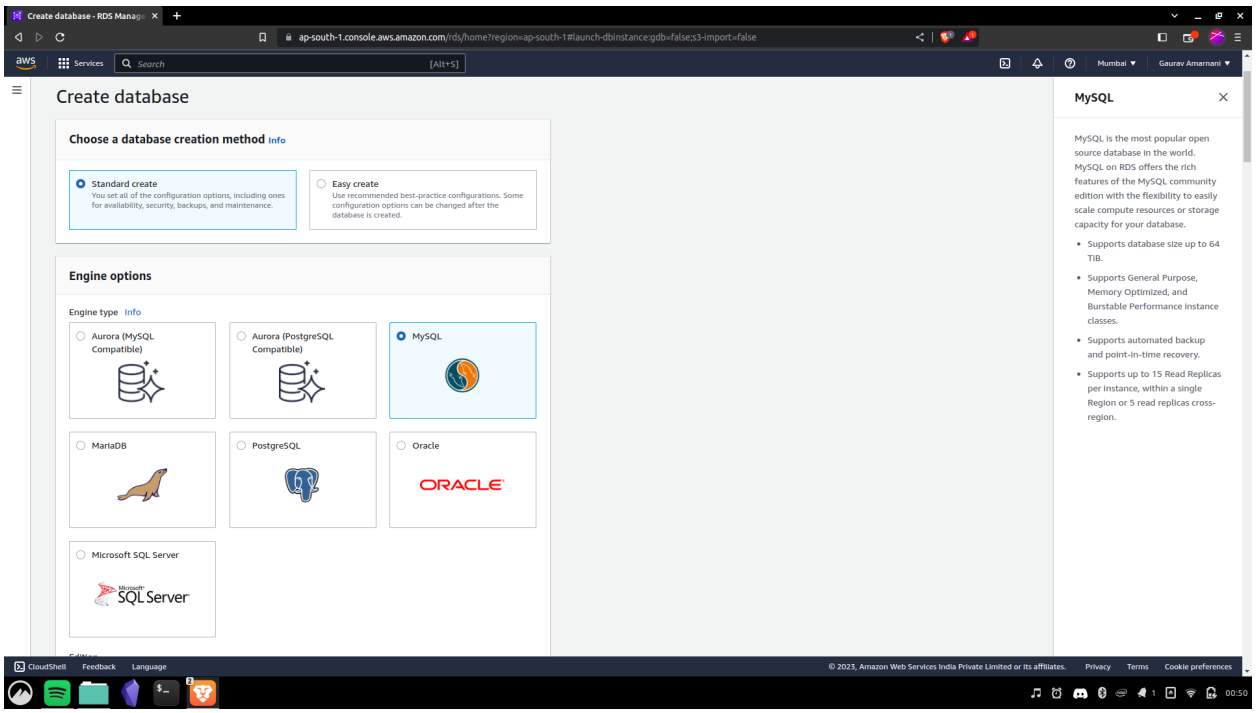
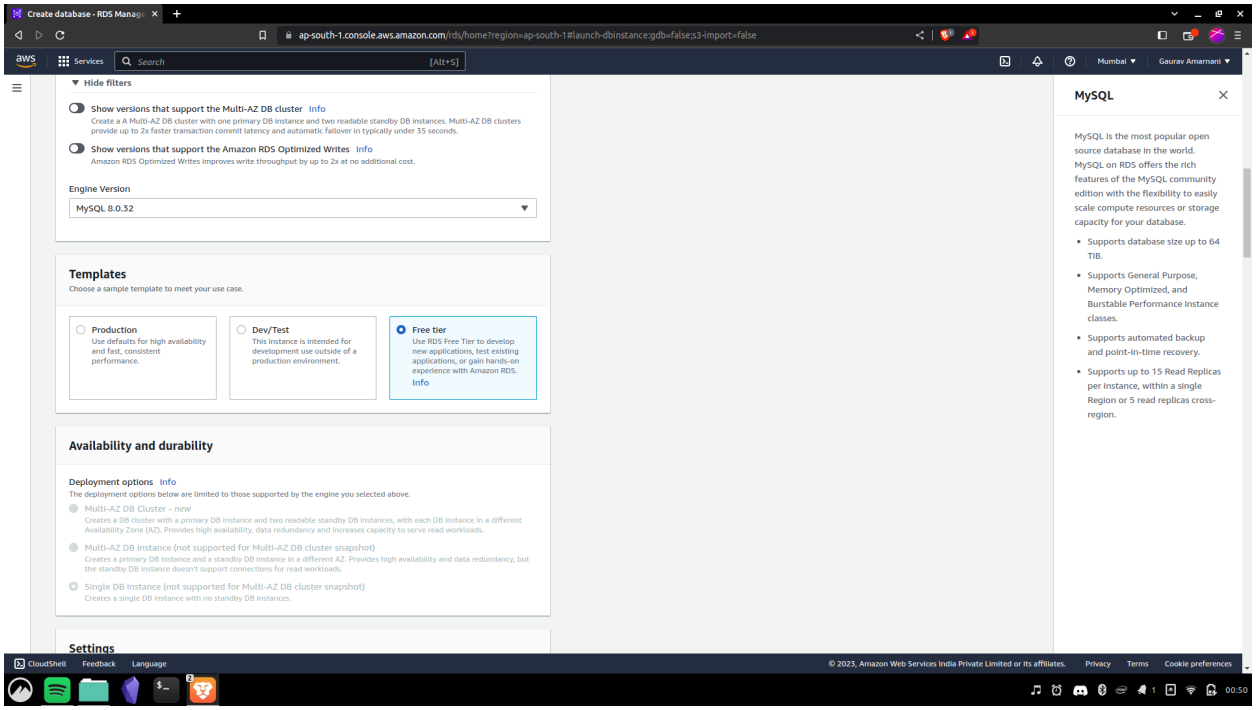
Gaurav Amarnani
D12A/02

CC Lab 7






Create database - RDS Manag
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:gdb=false;s3-import=false
Services
Search
[Alt+S]
Mumbai
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Hide filters
Show versions that support the Multi-AZ DB cluster Info
Create a Multi-AZ DB cluster with one primary DB instance and two readable standby DB instances. Multi-AZ DB clusters provide up to 2x faster transaction commit latency and automatic failover in typically under 35 seconds.
Show versions that support the Amazon RDS Optimized Writes Info
Amazon RDS Optimized Writes improves write throughput by up to 2x at no additional cost.
Engine Version
MySQL 8.0.32
Templates
Choose a sample template to meet your use case.
Production
Use defaults for high availability and fast, consistent performance.
Dev/Test
This instance is intended for development use outside of a production environment.
Free tier
Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.
Info
Availability and durability
Deployment options Info
The deployment options below are limited to those supported by the engine you selected above.
Multi-AZ DB Cluster - new
Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.
Multi-AZ DB Instance (not supported for Multi-AZ DB cluster snapshot)
Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.
Single DB instance (not supported for Multi-AZ DB cluster snapshot)
Creates a single DB instance with no standby DB instances.
Settings
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
Supports automated backup and point-in-time recovery.
Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.
CloudShell
Feedback
Language
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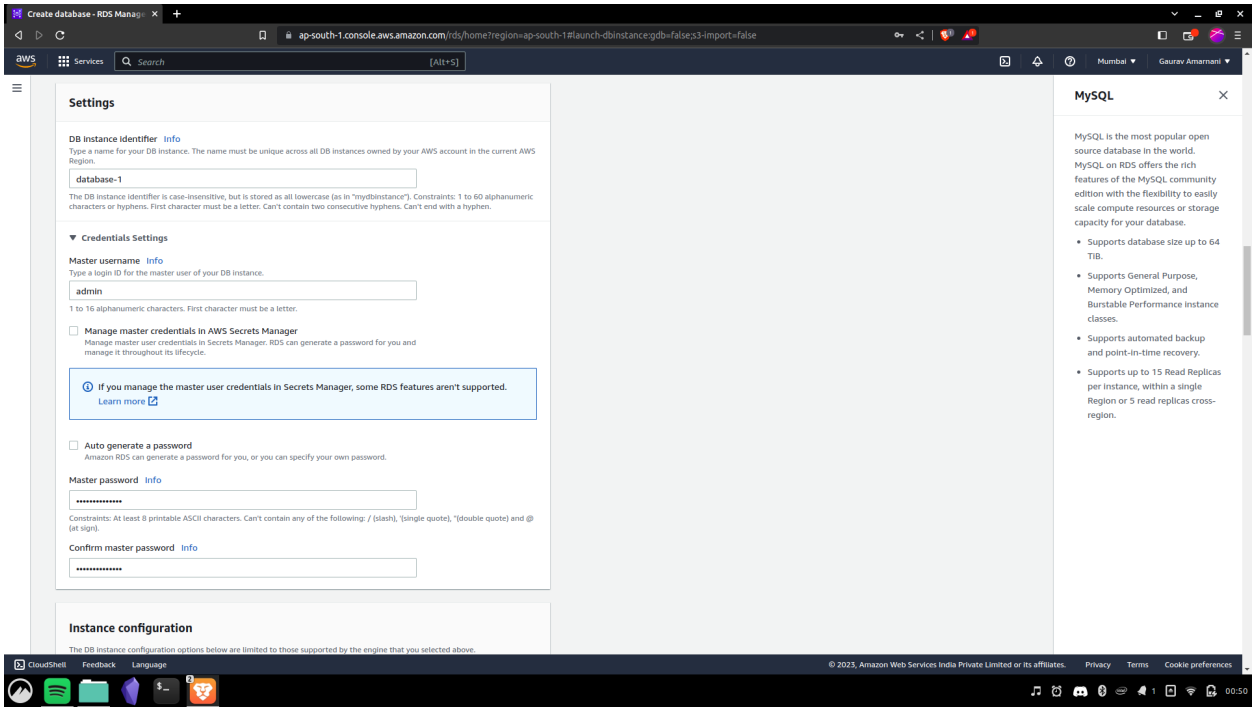
Create database - RDS Manag
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:gdb=false;s3-import=false
Services
Search
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Mumbai
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Settings
DB instance identifier Info
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.
database-1
The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.
Credentials Settings
Master username Info
Type a login ID for the master user of your DB instance.
admin
1 to 16 alphanumeric characters. First character must be a letter.
Manage master credentials in AWS Secrets Manager
Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.
If you manage the master user credentials in Secrets Manager, some RDS features aren't supported.
Learn more
Auto generate a password
Amazon RDS can generate a password for you, or you can specify your own password.
Master password Info
Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote), "(double quote) and @ (at sign).
Confirm master password Info
Instance configuration
The DB instance configuration options below are limited to those supported by the engine that you selected above.
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
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Supports automated backup and point-in-time recovery.
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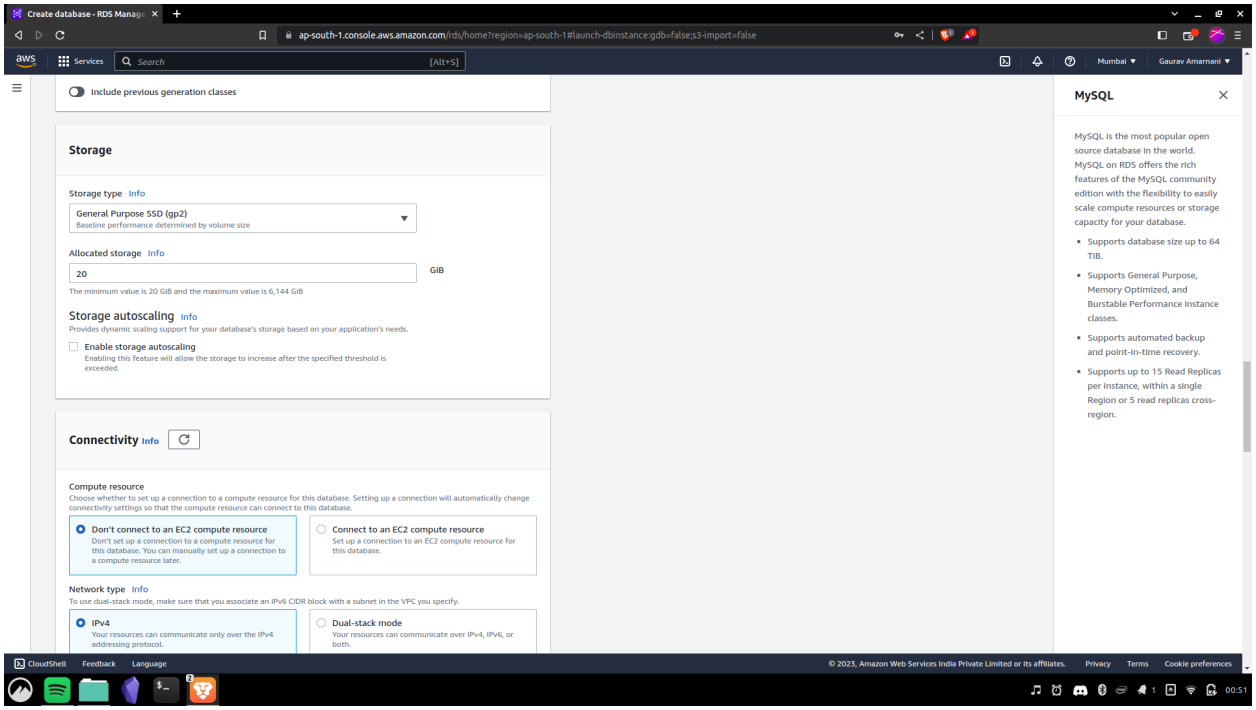
Create database - RDS Manag
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:gdb=false;s3-import=false
Services
Search
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Include previous generation classes
Storage
Storage type Info
General Purpose SSD (gp2)
Baseline performance determined by volume size
Allocated storage Info
20
GiB
The minimum value is 20 GiB and the maximum value is 6,144 GiB
Storage autoscaling Info
Provides dynamic scaling support for your database's storage based on your application's needs.
Enable storage autoscaling
Enabling this feature will allow the storage to increase after the specified threshold is exceeded.
Connectivity Info
Compute resource
Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.
Don't connect to an EC2 compute resource
Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.
Connect to an EC2 compute resource
Set up a connection to an EC2 compute resource for this database.
Network type Info
To use dual-stack mode, make sure that you associate an IPv6 CIDR block with a subnet in the VPC you specify.
IPv4
Your resources can communicate only over the IPv4 addressing protocol.
Dual-stack mode
Your resources can communicate over IPv4, IPv6, or both.
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
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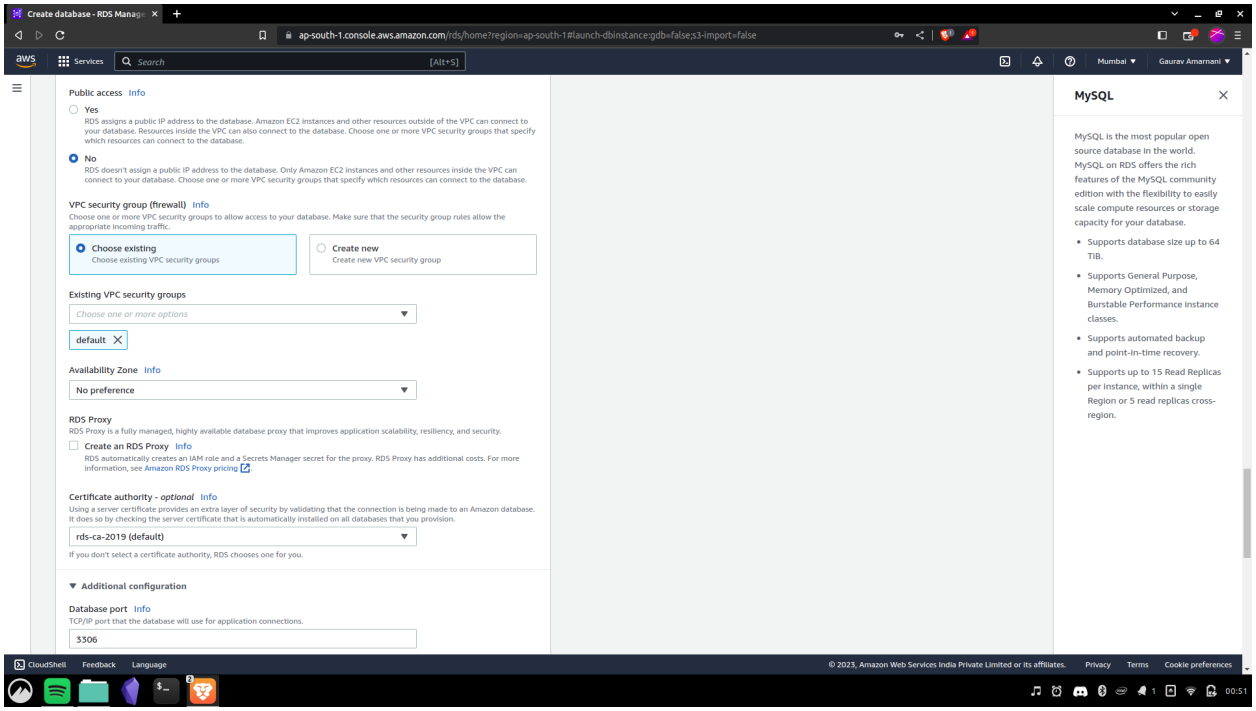
Create database - RDS Manag
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:gdb=false;s3-import=false
Services
Search
[Alt+S]
Mumbai
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Public access Info
Yes
RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.
No
RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.
VPC security group (firewall) Info
Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.
Choose existing
Choose existing VPC security groups
Create new
Create new VPC security group
Existing VPC security groups
Choose one or more options
default
Availability Zone Info
No preference
RDS Proxy
RDS Proxy is a fully managed, highly available database proxy that improves application scalability, resiliency, and security.
Create an RDS Proxy Info
RDS automatically creates an IAM role and a Secrets Manager secret for the proxy. RDS Proxy has additional costs. For more information, see Amazon RDS Proxy pricing.
Certificate authority - optional Info
Using a server certificate provides an extra layer of security by validating that the connection is being made to an Amazon database. It does so by checking the server certificate that is automatically installed on all databases that you provision.
rds-ca-2019 (default)
If you don't select a certificate authority, RDS chooses one for you.
Additional configuration
Database port Info
TCP/IP port that the database will use for application connections.
3306
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
Supports automated backup and point-in-time recovery.
Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.
CloudShell
Feedback
Language
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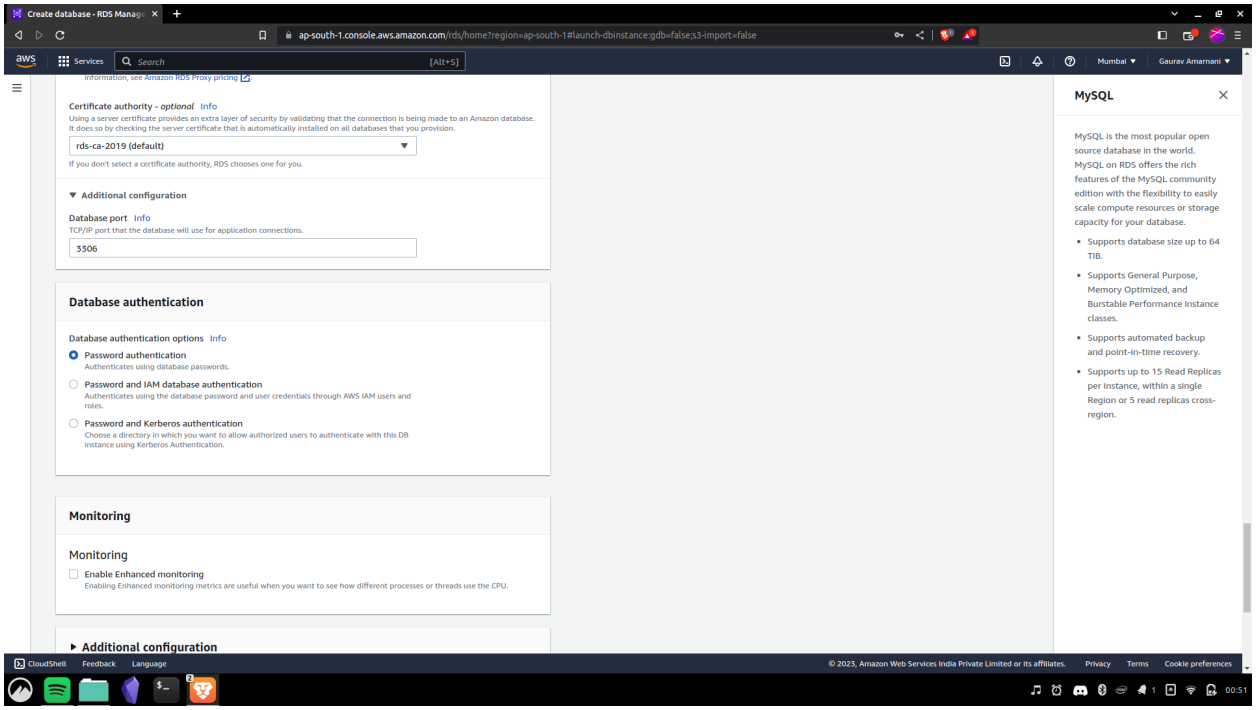
Create database - RDS Manage
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#launch-dbinstance:gdb=false;s3-import=false
Services
Search
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Mumbai
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Certificate authority - optional Info
Using a server certificate provides an extra layer of security by validating that the connection is being made to an Amazon database. It does so by checking the server certificate that is automatically installed on all databases that you provision.
rds-ca-2019 (default)
If you don't select a certificate authority, RDS chooses one for you.
Additional configuration
Database port Info
TCP/IP port that the database will use for application connections.
3306
Database authentication
Database authentication options Info
Password authentication
Authenticates using database passwords.
Password and IAM database authentication
Authenticates using the database password and user credentials through AWS IAM users and roles.
Password and Kerberos authentication
Choose a directory in which you want to allow authorized users to authenticate with this DB instance using Kerberos Authentication.
Monitoring
Monitoring
Enable Enhanced monitoring
Enabling Enhanced monitoring metrics are useful when you want to see how different processes or threads use the CPU.
Additional configuration
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
Supports General Purpose, Memory Optimized, and Burstable Performance Instance classes.
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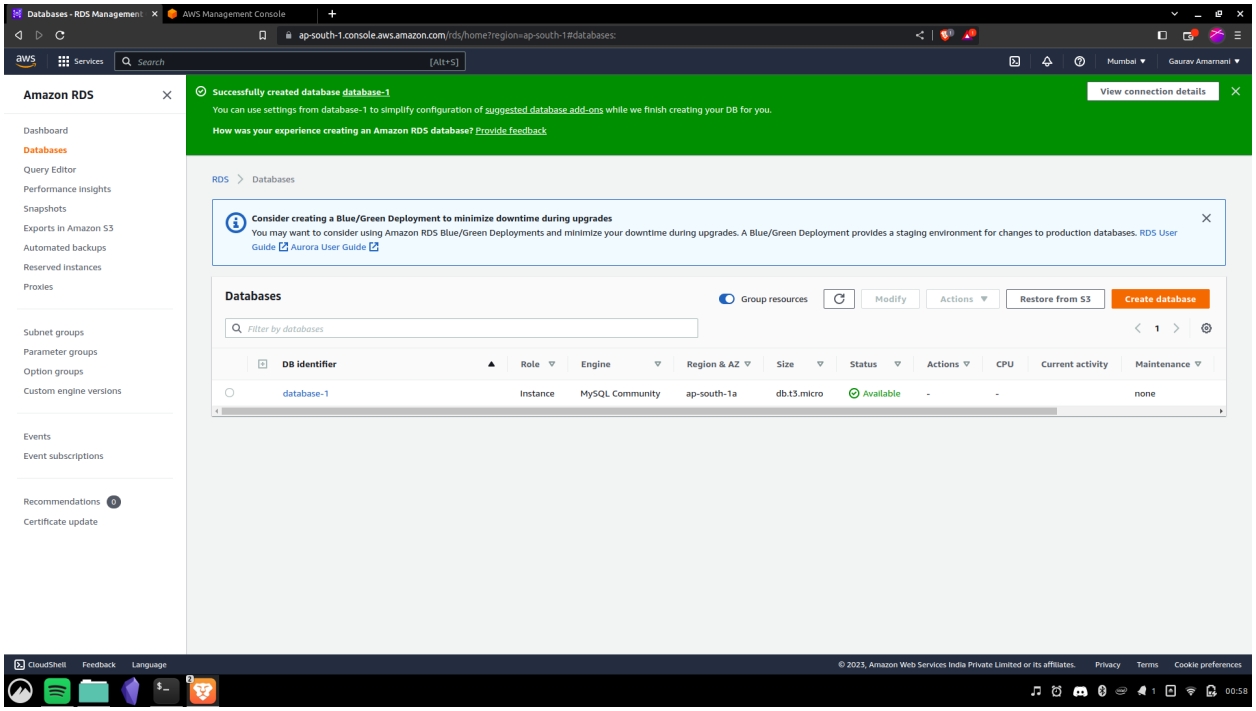
Databases - RDS Management
AWS Management Console
ap-south-1.console.aws.amazon.com/rds/home?region=ap-south-1#databases:
Services
Search
[Alt+S]
Mumbai
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Amazon RDS
Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Events
Event subscriptions
Recommendations 0
Certificate update
Successfully created database database-1
You can use settings from database-1 to simplify configuration of suggested database add-ons while we finish creating your DB for you.
How was your experience creating an Amazon RDS database? Provide feedback
View connection details
RDS > Databases
Consider creating a Blue/Green Deployment to minimize downtime during upgrades
You may want to consider using Amazon RDS Blue/Green Deployments and minimize your downtime during upgrades. A Blue/Green Deployment provides a staging environment for changes to production databases. RDS User Guide Aurora User Guide
Databases
Group resources
Modify
Actions
Restore from S3
Create database
Filter by databases
DB identifier
Role
Engine
Region & AZ
Size
Status
Actions
CPU
Current activity
Maintenance
database-1
Instance
MySQL Community
ap-south-1a
db.t3.micro
Available
none
CloudShell
Feedback
Language
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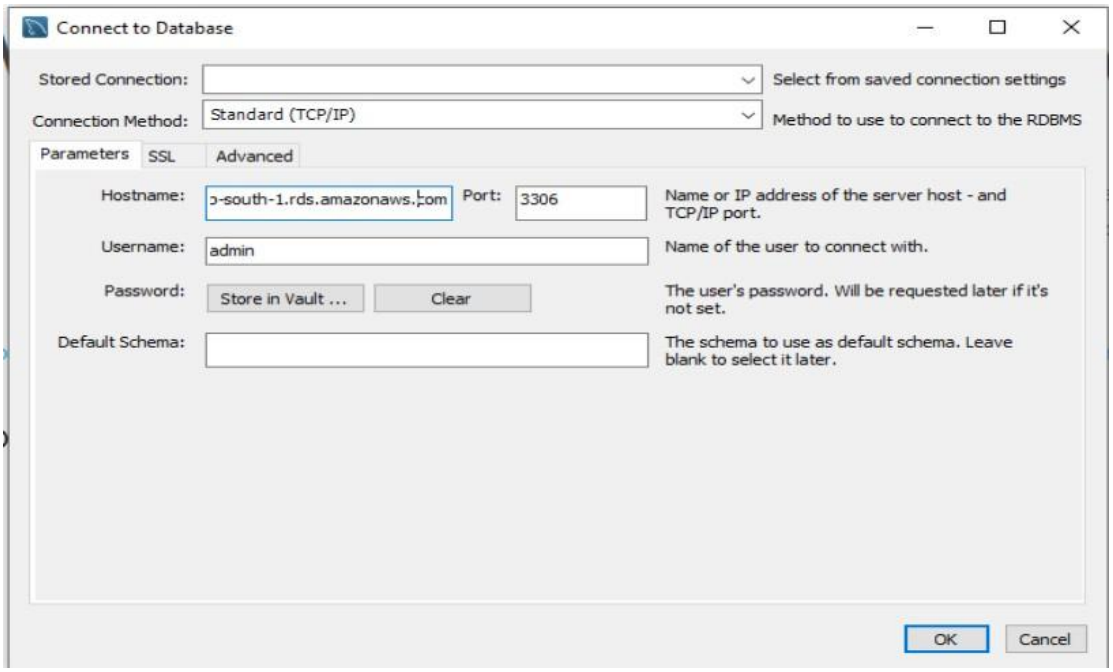
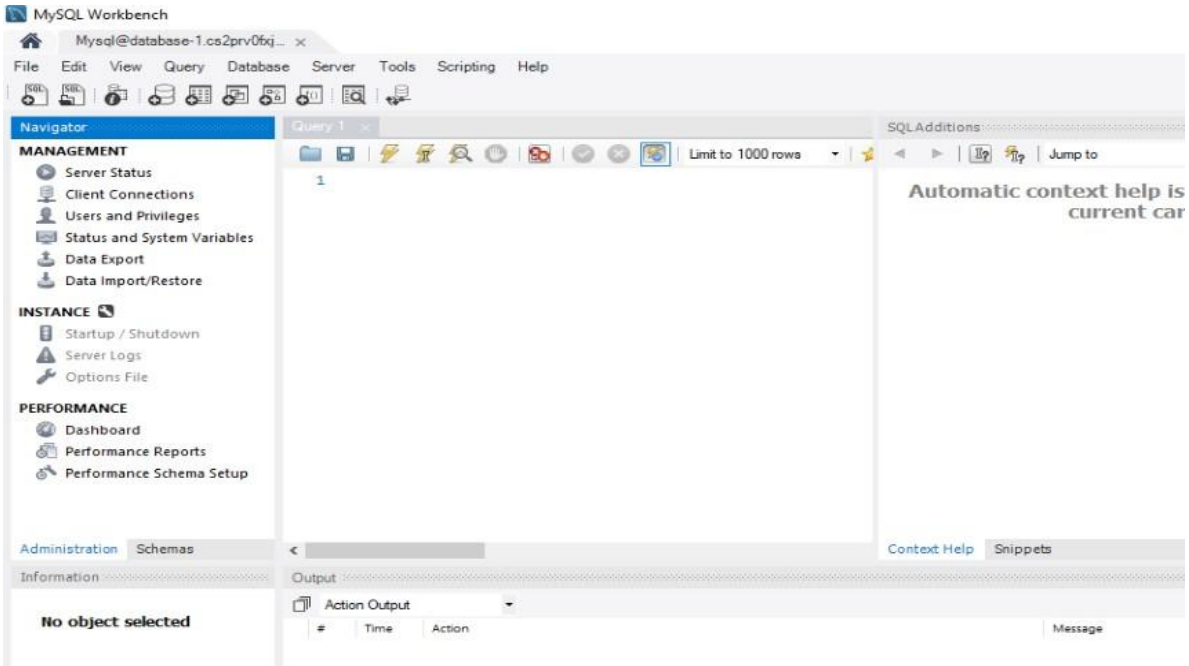
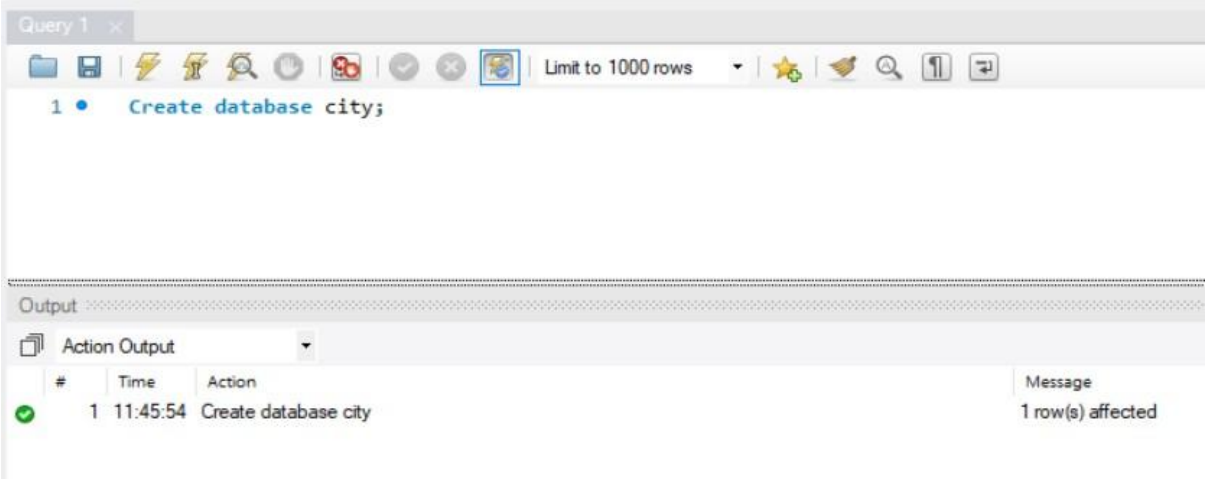
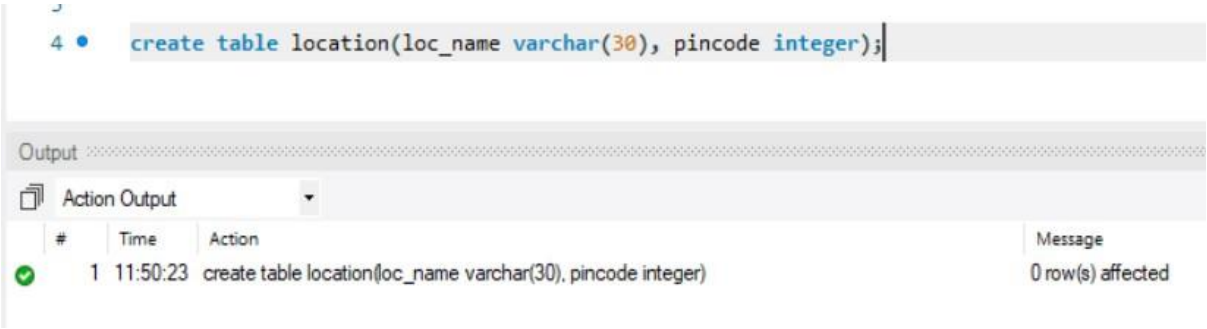

Connect to Database
Stored Connection:
Select from saved connection settings
Connection Method:
Standard (TCP/IP)
Method to use to connect to the RDBMS
Parameters
SSL
Advanced
Hostname:
o-south-1.rds.amazonaws.com
Port:
3306
Name or IP address of the server host - and TCP/IP port.
Username:
admin
Name of the user to connect with.
Password:
Store in Vault ...
Clear
The user's password. Will be requested later if it's not set.
Default Schema:
The schema to use as default schema. Leave blank to select it later.
OK
Cancel


MySQL Workbench
Mysql@database-1.cs2prv0fxj...
File
Edit
View
Query
Database
Server
Tools
Scripting
Help
Navigator
MANAGEMENT
Server Status
Client Connections
Users and Privileges
Status and System Variables
Data Export
Data Import/Restore
INSTANCE
Startup / Shutdown
Server Logs
Options File
PERFORMANCE
Dashboard
Performance Reports
Performance Schema Setup
Administration
Schemas
Information
No object selected
Query 1
Limit to 1000 rows
1
SQLAdditions
Jump to
Automatic context help is
current car
Context Help
Snippets
Output
Action Output
#
Time
Action
Message

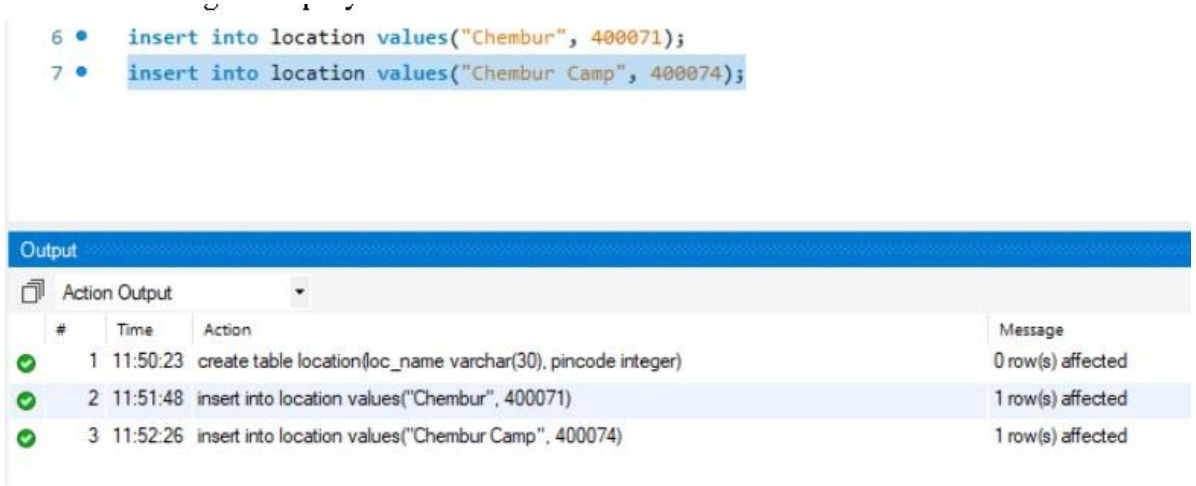
CREATING DATABASE



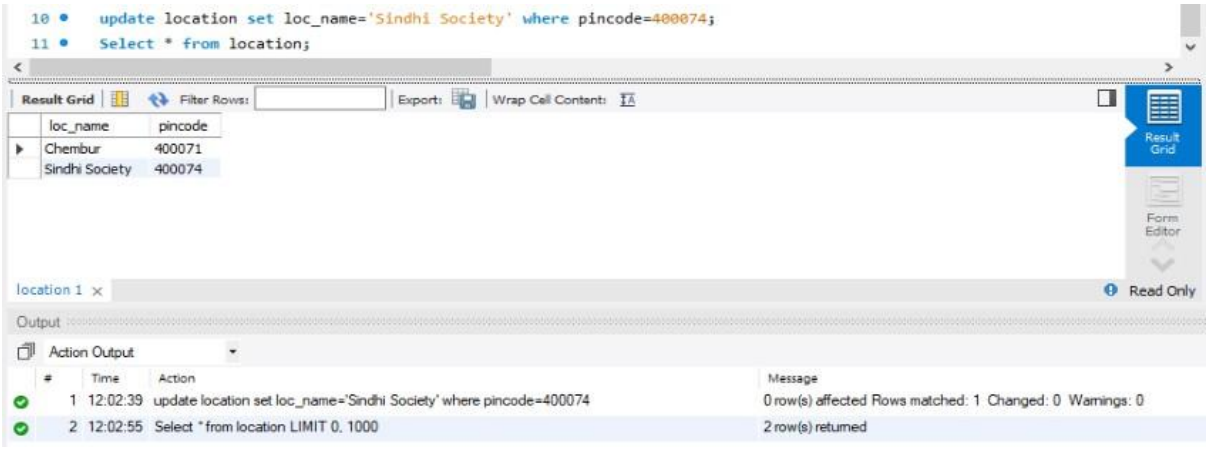
CREATING TABLE



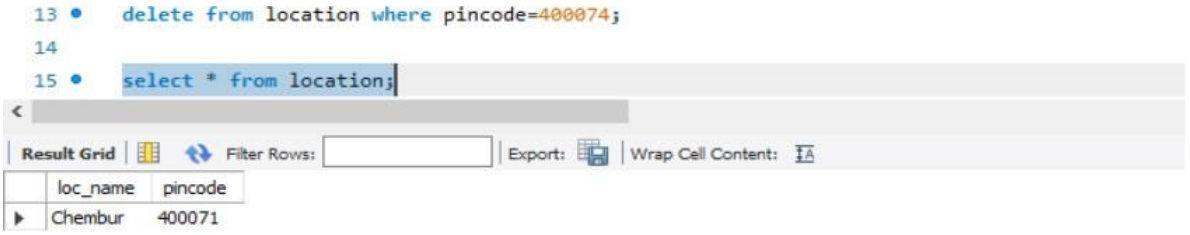
INSERT QUERY



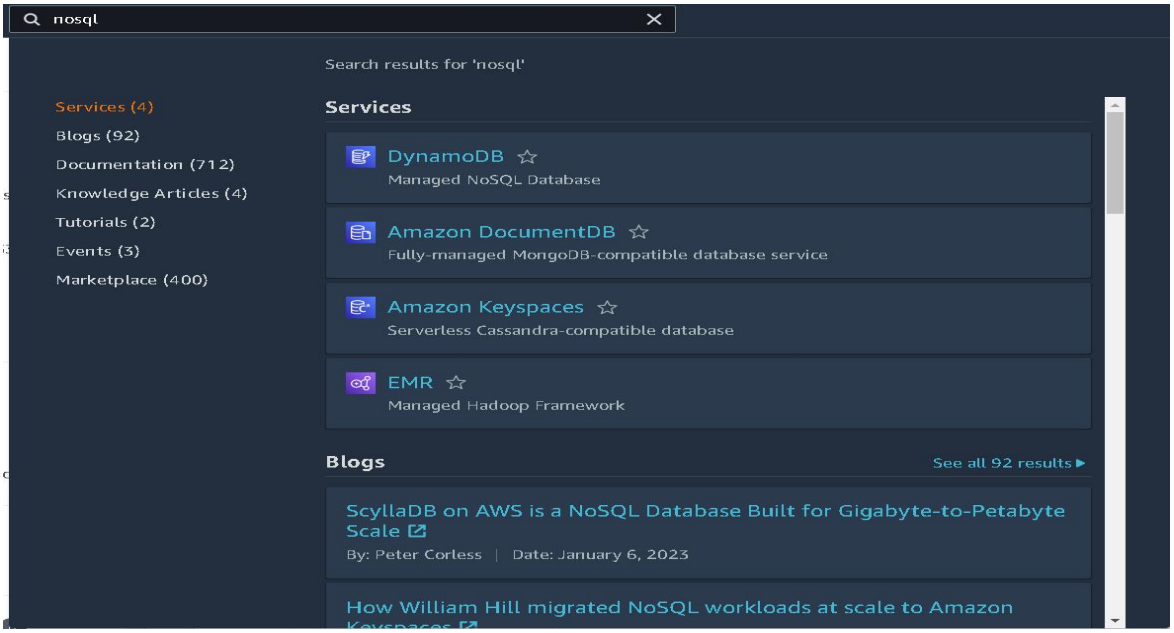
UPDATE QUERY



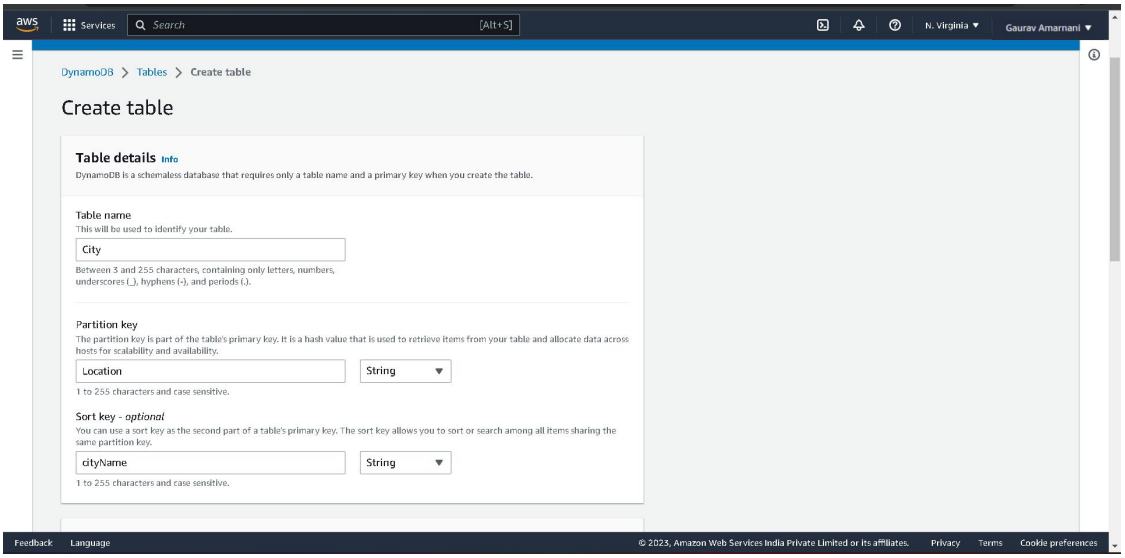
DELETE QUERY

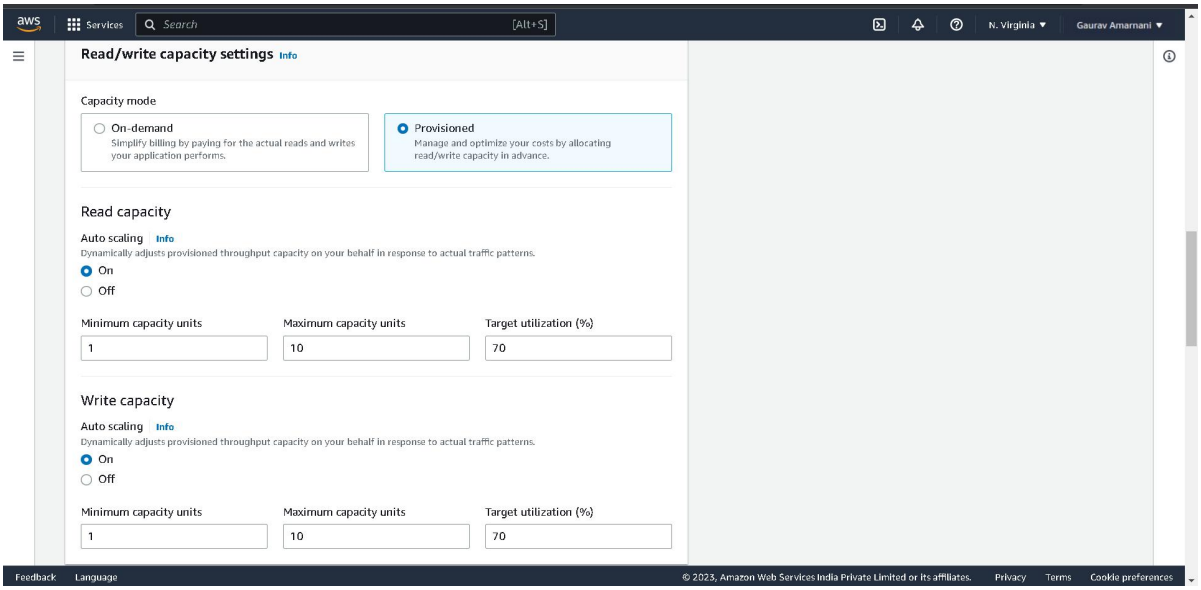


IMPLEMENTING NOSQL DATABASE CONNECTION USING DYNAMODB



1.Creating a table:




aws
Services
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Read/write capacity settings Info
Capacity mode
On-demand
Simplify billing by paying for the actual reads and writes your application performs.
Provisioned
Manage and optimize your costs by allocating read/write capacity in advance.
Read capacity
Auto scaling Info
Dynamically adjusts provisioned throughput capacity on your behalf in response to actual traffic patterns.
On
Off
Minimum capacity units
1
Maximum capacity units
10
Target utilization (%)
70
Write capacity
Auto scaling Info
Dynamically adjusts provisioned throughput capacity on your behalf in response to actual traffic patterns.
On
Off
Minimum capacity units
1
Maximum capacity units
10
Target utilization (%)
70
Feedback
Language
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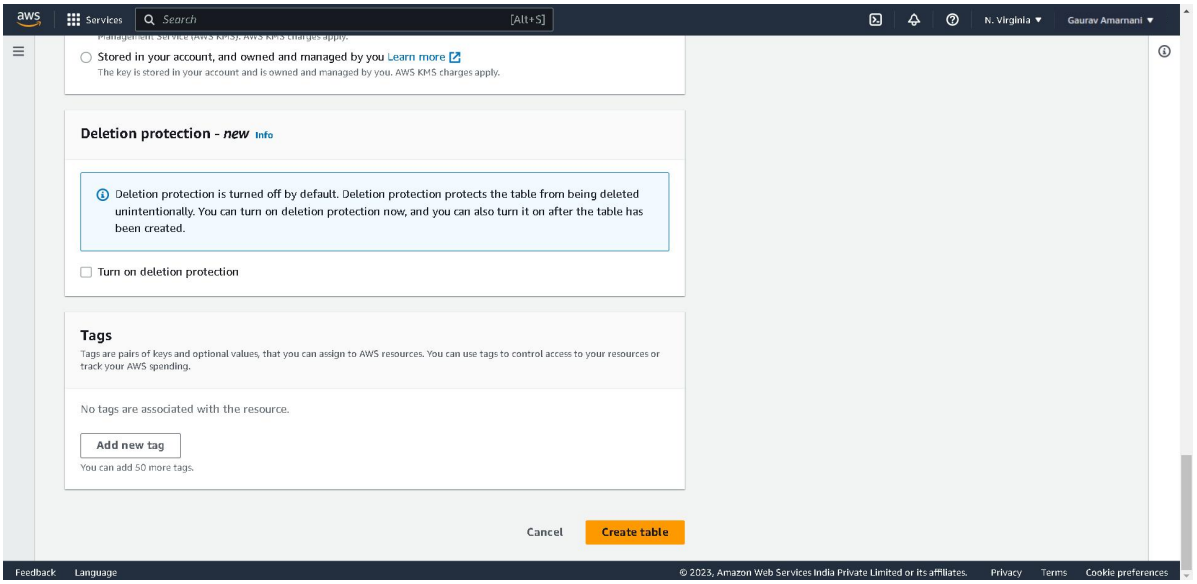
aws
Services
Search
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Stored in your account, and owned and managed by you Learn more
The key is stored in your account and is owned and managed by you. AWS KMS charges apply.
Deletion protection - new Info
Deletion protection is turned off by default. Deletion protection protects the table from being deleted unintentionally. You can turn on deletion protection now, and you can also turn it on after the table has been created.
Turn on deletion protection
Tags
Tags are pairs of keys and optional values, that you can assign to AWS resources. You can use tags to control access to your resources or track your AWS spending.
No tags are associated with the resource.
Add new tag
You can add 50 more tags.
Cancel
Create table
Feedback
Language
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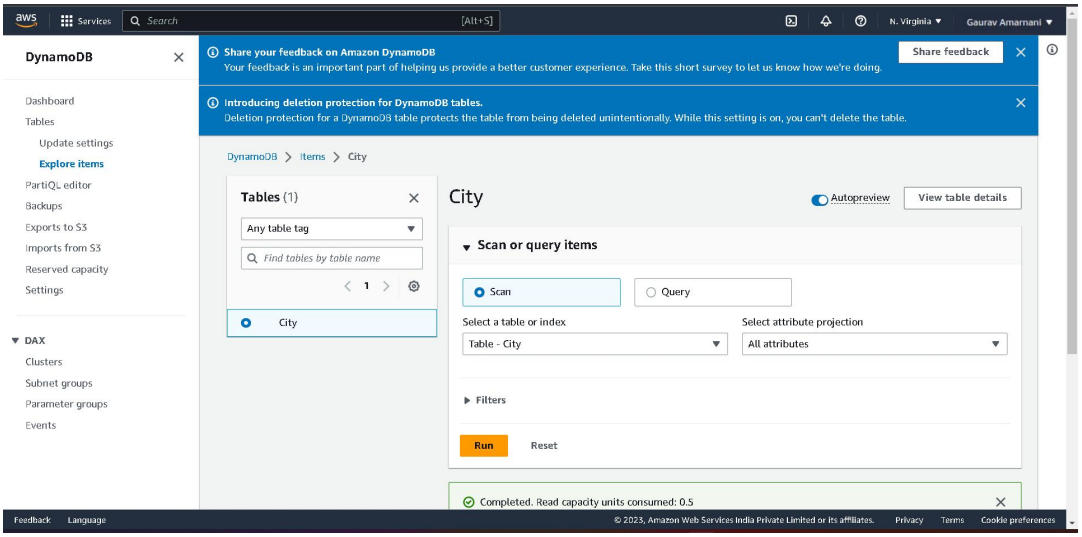
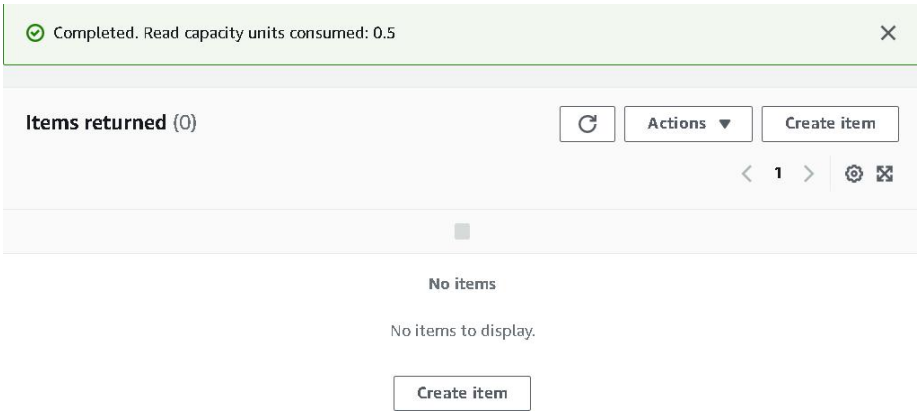
2.Adding data to NOSQL table

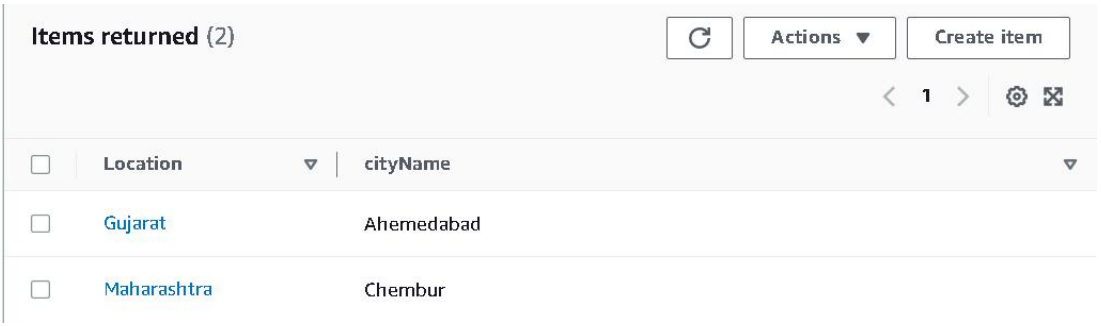
Select explore items from the left menu , then select the radio button next to City



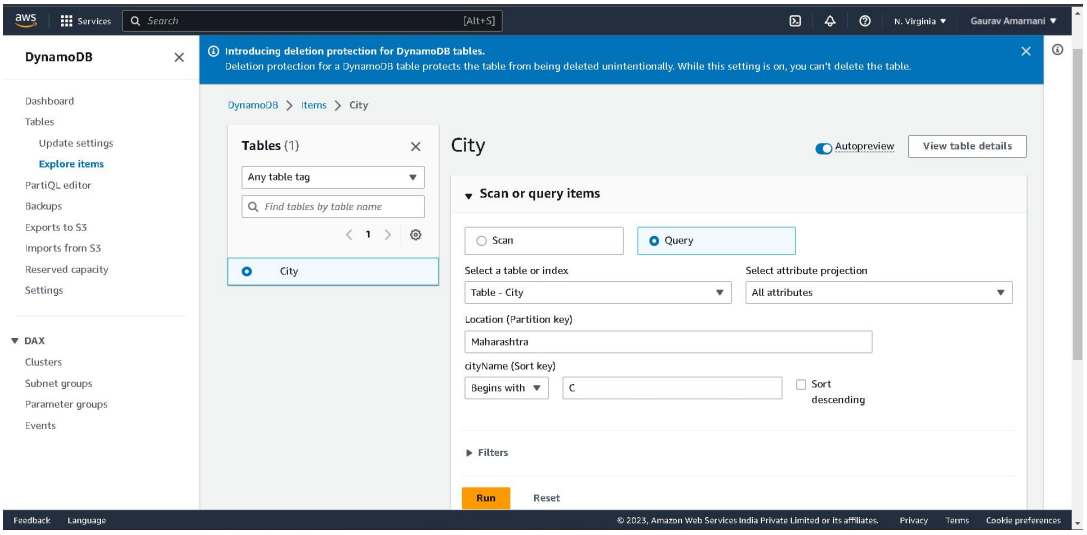
3.Choose **create item**:



4.Created items in table

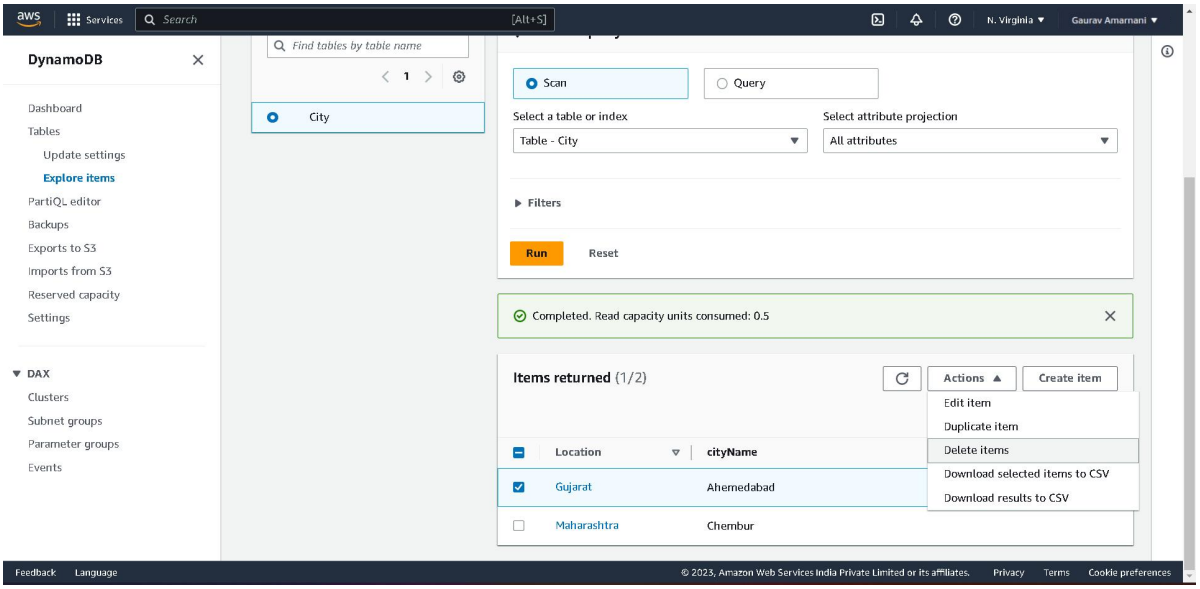
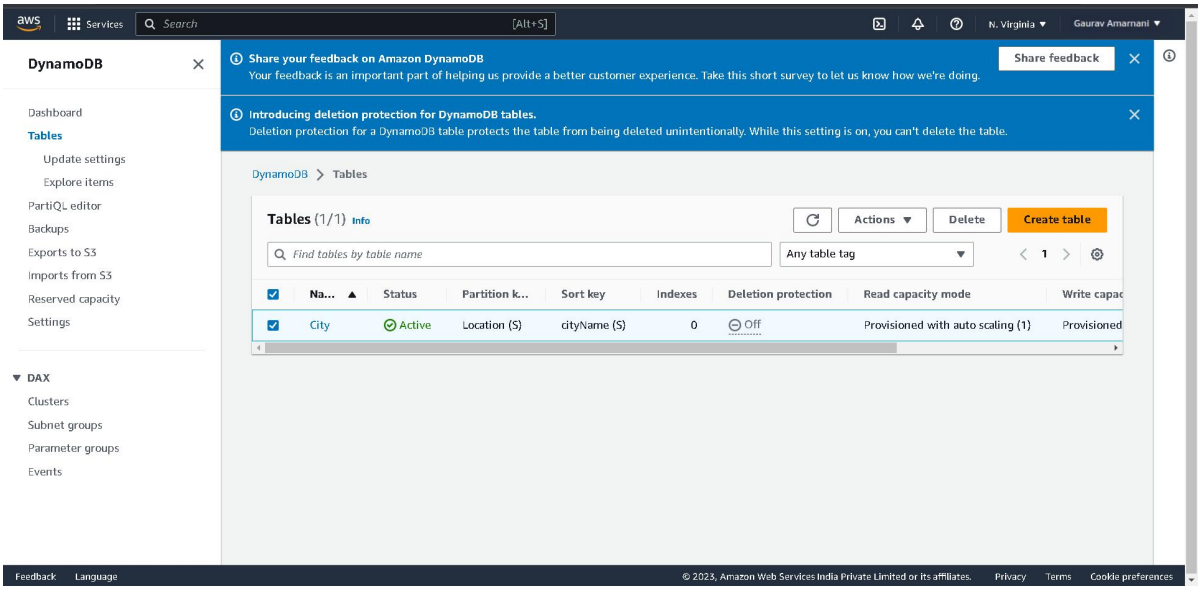


5. Writing queries:
Select Query (using begins with) :



Output:

6. To delete an existing row in a table :



7. To delete the existing table :