

Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

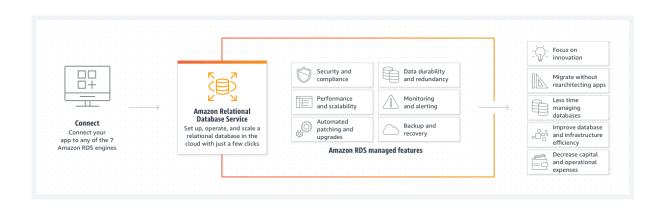
Experiment No. 6

Aim: To study and Implement Database as a Service on SQL/NOSQL databases using AWS RDS.

Theory:

- Database as a Service (DBaaS) is self service/ on demand database consumption coupled with automation of operations.
- Cloud computing services are like pay per use so DBaaS also based on same payment structure like how much you will use just pay for your usage.
- This DBaaS provides same function as like standard traditional and relational database models. So using DBaaS, organizations can avoid data base configuration, management, upgradation and security.
- A fully managed info service helps to line up, manage, and administer your info within the cloud and conjointly offer services for hardware provisioning and Backup.
- DBaaS permits the availability of info's effortlessly to Database shoppers from numerous backgrounds and IT expertise.
- Provides on demand services.
- Supported the resources offered, it delivers a versatile info platform that tailors itself to the environment's current desires.
- A team of consultants at your disposal, endlessly watching the Databases.
- Automates info administration and watching.
- Leverages existing servers and storage

RDS: Amazon RDS is an easy to manage relational database service optimized for total cost of ownership. It is simple to set up, operate, and scale with demand. Amazon RDS automates the undifferentiated database management tasks, such as provisioning, configuring, backups, and patching. Amazon RDS enables customers to create a new database in minutes, and offers flexibility to customize databases to meet their needs across 8 engines and 2 deployment options.

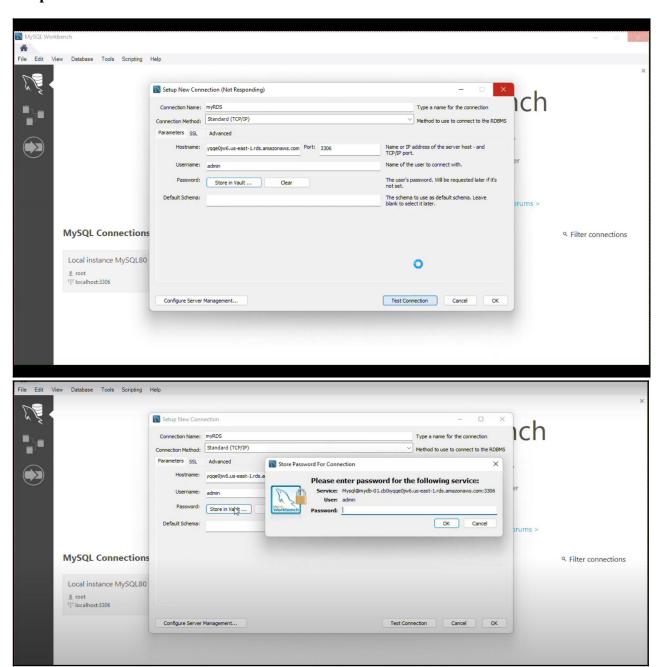




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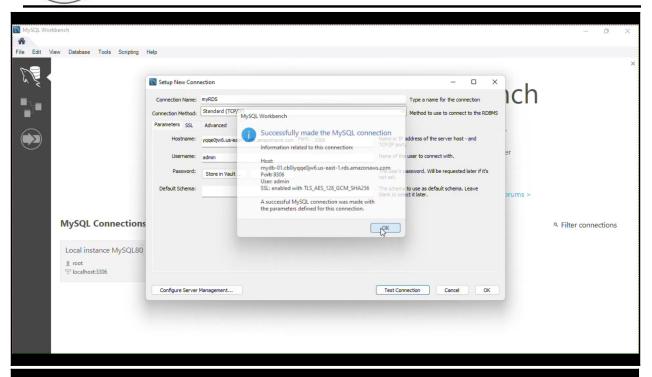
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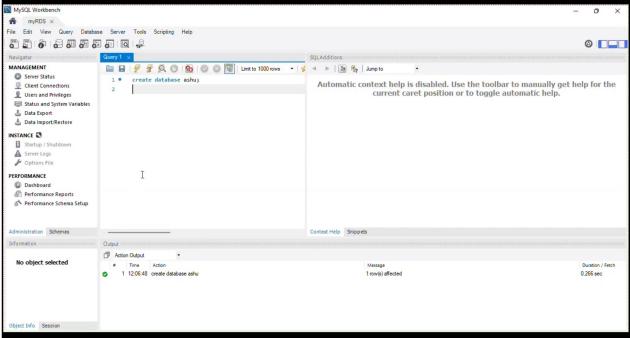




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Conclusion: Amazon RDS (Relational Database Service) is a managed database service by AWS that supports several relational database engines such as MySQL, PostgreSQL, Oracle, SQL Server, and MariaDB. RDS handles routine database tasks like provisioning, patching, backup, recovery, and scaling, allowing users to focus on application development rather than database management. DynamoDB is a fully managed NoSQL database service by AWS. It offers low-latency performance at any scale, making it suitable for applications with high traffic and stringent latency requirements. DynamoDB supports both document and key-value data models and provides features like automatic scaling, built-in security, in-memory caching with DAX (DynamoDB Accelerator), and backup and restore capabilities.