



### Lab 06 – Cloud Databases

Databases are used across every industry to store data. The data can then be queried and analyzed for a variety of reasons. Storing data is fundamental to any computing environment and using a cloud computing environment and infrastructure is no different.

Amazon Relational Database Server (Amazon RDS) provides a way to instantiate a database within AWS and significantly scale the database. There are many database vendors that exist and there are always similarities and differences, so it is up to the software engineer and system administrator to come to an agreement on which database vendor to use and ultimately implement within their organization. Amazon RDS provides a variety of options to choose from. The database engines that exist within Amazon RDS are: Amazon Aurora, Oracle, Microsoft SQL Server, PostgreSQL, MySQL, and MariaDB.

Amazon Elastic Compute Cloud (Amazon EC2) is a service that provides a computing environment to be resized on-demand. By using a resilient storage mechanism, such as Amazon EBS, allows EC2 instances to scale and run with efficiency, availability, and scalability in mind.

For this particular lab, you will be working with Amazon RDS along with Amazon EC2 to create an RDS BD with high availability while utilizing the database for a web server application. You will be walking through a pre-established AWS lab environment using the AWS Management Console and the AWS CLI. When you have completed this lab, you should have a good understanding of Amazon EBS as well as block storage.



### Complete EITHER Task ONE OR Task TWO:

#### **TASK ONE: AWS Management Console**

1. The goal of this task is to gain a practical understanding of using Amazon RDS within AWS using the AWS Management Console.
2. Login to the AWS Academy Cloud Foundations course and walk-through Lab 5: Build a Database Server using the AWS Management Console. While walking through this lab, please make sure you are continually capturing your screen during each step of the lab. When you have completed this portion of the lab, you should have at least ten screenshots. You should articulate how you created an Amazon RDS and used this within the web server instance.

#### **TASK TWO: AWS Command Line Interface**

1. The goal of this task is to gain a practical understanding of using Amazon RDS within AWS using the AWS Command Line Interface.
2. Login to the AWS Academy Cloud Foundations course and walk-through Lab 5: Build a Database Server choosing the alternative option of using the Command Line Interface. While walking through this lab, please make sure you are continually capturing your screen during each step of the lab. When you have completed this portion of the lab, you should have at least ten screenshots. You should articulate how you created an Amazon RDS and used this within the web server instance (all while using the AWS Command Line Interface). Illustrate the differences of using the Management Console versus the Command Line Interface. At this point, which one do you prefer? Why?



### DELIVERABLE:

1. Provide TEN screenshots within a document as you are progressing through the lab and make sure your 10<sup>th</sup> screenshot is the final result.
2. Upload the following file(s) to the assignment within iLearn:
  - a) your .pdf file

Good Luck with your lab!