**DAT308 - Replicate and Manage Data Using Managed Databases and Serverless Technologies**

**Workshop Duration: 1.5 hours**

**Requirements and Expectations:**

* Students use their own AWS accounts to run the lab with IAM Admin permissions
* Basic Knowledge of AWS services (Amazon Aurora Serverless, Amazon S3, AWS DMS, AWS SCT, Amazon Athena, Amazon Quicksight, AWS Glue, AWS CloudFormation)
* Comfortable working on the AWS Console and configure AWS services
* Working knowledge of Relational databases (SQL Server)

**Workshop Folder (Zip file extract) contents:**

* DAT308-Lab-Guide-BeginHere.pdf – Lab guide with instructions to setup and run the exercises, this document
* DAT308-Lab-Exercises.pdf – Detailed Lab exercises 1 through 6
* DMS\_SeverlessBigDataWorkshop.json – AWS Cloud Formation template to launch the workshop stack
* ConfigureSQLServer.sql – SQL Server configuration script to setup source SQL server for replication
* AthenaQueries\_for\_workshop.txt – List of Amazon Athena queries to create tables and run queries
* Replicate&Manage Data Using Managed Databases & Serverless Technologies v2 – Workshop power point presentation

**Instructions:**

* If you’re reading this, you should have already downloaded zip file and extracted into a folder on your laptop
* Begin from Exercise 1 and progress through rest of the exercises in order as successful completion of previous exercise is necessary to continue through the next one
* Login to the AWS console, ensure Ireland (eu-west-1) is selected as AWS region
* Ensure your AWS account has service limits/instance limits to launch the below AWS services.
* Ensure you have IAM permission to execute AWS CloudFormation stack, launch and configure the following AWS services:
  + AWS CloudFormation
  + AWS IAM to setup and configure IAM roles, policies
  + Amazon VPC (1) with subnets, security groups and internet gateway
  + Amazon EC2 instance (1)
  + Amazon S3
  + Amazon Aurora Serverless instance (1)
  + AWS Glue
  + AWS Database Migration Service (DMS) (2)
  + Amazon Athena
  + Amazon QuickSight
* Recommended to login as an IAM admin user to run the lab so you’re not tweaking IAM policies for each AWS service
* Finally, please terminate CloudFormation stack at the end of workshop and ensure all AWS services are terminated so you’re not charged for services running in your account