**Insert S3 csv file content to RDS MySQL using lambda function**

1. **Create an RDS MySQL Instance**:
   * Navigate to the **RDS service** and create a new database instance.
   * Select **MySQL** as the engine and enable **public access**.
2. **Set Up a Lambda Function**:
   * Go to the **Lambda service** and click on **Create function**.
   * Choose **Author from scratch**.
     + **Function name**: s3-rds-mysql
     + **Runtime**: Python 3.10
   * Under **Permissions**, select the default role and attach the **S3 Object Read Only** permission to the Lambda function.
   * Click on **Create function**.
3. **Prepare the Lambda Function Code**:

Open a terminal and create a directory for your code:  
bash  
Copy code  
mkdir /home/RDSCode

cd /home/RDSCode

Install the required library:  
bash  
Copy code  
pip install -t /home/RDSCode pymysql

Create a new Python file:  
bash  
Copy code  
vi lambda\_function.py

* + Copy the entire code from this [GitHub repository](https://github.com/prabhakar2020/insert_s3_csv_file_content_to_mysql_using_lambda).

1. **Package and Upload the Code**:

Zip the directory:  
bash  
Copy code  
zip -r directoryName.zip .

* + Upload the zipped file to the Lambda function. Click on the **Upload** button and select the zip file.

1. **Configure Database Connection**:

Copy your RDS endpoint and insert it into the Python code for the connection:  
python  
Copy code  
rds\_endpoint = "database-test.c5kay8g0u99c.us-east-1.rds.amazonaws.com"

username = "admin"

password = "admin12345" # RDS MySQL password

db\_name = "employee"

* + Save the changes by clicking on **Deploy**.

1. **Set Up S3 Bucket Event Notification**:
   * Create a new bucket in S3.
   * Navigate to the bucket, go to **Properties**, and click on **Event Notifications**.
   * Click on **Create event notification**:
     + **Event name**: [Your Event Name]
     + **Event types**: Select **All object create events**
     + **Destination type**: Choose **Lambda function**
     + **Destination**: Select the Lambda function s3-RDS-mysql.
2. **Monitor Logs**:
   * You can check the logs in **CloudWatch** under **Log groups**. Click on /aws/lambda/s3-RDS-mysql, then **Log streams** to view the current logs.
3. **Verify Data Insertion**:

Access your RDS instance using the following command:  
bash  
Copy code  
mysql -h database-test.c5kay8g0u99c.us-east-1.rds.amazonaws.com -u admin -p

This process will set up a Lambda function that automatically inserts CSV file content from S3 into your RDS MySQL database whenever a new file is uploaded.