Group No :- 18

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Lab No.:- 12(21-11-2021)

Dairy product management system

❖ Java Code:-

```
import java.sql.*;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

import java.math.BigDecimal;

import java.util.Scanner;

public class JavaExercise
{
	public static void main(String args[])
	{
		Connection c=null;
```

```
        try
        {
                // Load Postgresql Driver class
                Class.forName("org.postgresql.Driver");
                // Using Driver class connect to databased on localhost, port=5432, database=postgres, user=postgres, password=postgres. If cannot connect then exception will be generated (try-catch block)
                c = DriverManager.getConnection("jdbc:postgresql://localhost:5432/postgres","postgres", "1234");
                System.out.println("Opened database successfully");

                // Create instance of this class to call other methods
                JavaExercise p = new JavaExercise();
                p.setSearchPath(c);

                //select query
                //p.select_query(c);

                //insert query
                //p.insert_query(c);

                //update query
                //p.update_query(c);

                //delete query
                //p.delete_query(c);
```

```
                //calling store procedure
                p.call_store_procedure(c);


        }
        catch (Exception e)
        {
                e.printStackTrace();
                System.err.println(e.getClass().getName()+": "+e.getMessage());
                System.exit(0);
        }
}

void setSearchPath(Connection c)
{
        Statement stmt = null;
        try
        {
                stmt = c.createStatement();
                String sql = "SET search_path TO dairy_management_system;";
                stmt.executeUpdate(sql);
                stmt.close();
                System.out.println("Changed Search Path successfully");
```

```
		}
		catch (Exception e)
		{
			e.printStackTrace();
			System.err.println(e.getClass().getName()+": "+e.getMessage());
			System.exit(0);
		}
	}

	void select_query(Connection c)
	{
		Statement stmt=null;
		try
		{
			stmt=c.createStatement();
			ResultSet rs=stmt.executeQuery("SELECT C_FIRST_NAME || ' ' || C_LAST_NAME AS
NAME,C_LOCALITY || ' ' || C_CITY || ' PINCODE - ' || C_PINCODE AS ADDRESS,C_MOBILE_NO AS MOBILE_NO,
P_NAME AS PRODUCT_NAME,P_COMPANY_NAME AS PRODUCT_COMPANY,F_TITLE AS
FEEDBACK_TITLE,F_RATING AS RATING,F_COMMENT AS COMMENT FROM CUSTOMER JOIN (SELECT
*FROM FEEDBACK JOIN PRODUCT ON F_TITLE=PRODUCT_ID) AS R1 ON
C_MOBILE_NO=CUSTOMER_MO_NO;");
			while(rs.next())
			{
				String name,address,product_name,product_company,feedback_title,f_comment;
```

```
                    BigDecimal customer_mobile_number;
                    float rating;
                    name=rs.getString("NAME");
                    address=rs.getString("ADDRESS");
                    customer_mobile_number=rs.getBigDecimal("MOBILE_NO");
                    product_name=rs.getString("PRODUCT_NAME");
                    product_company=rs.getString("PRODUCT_COMPANY");
                    feedback_title=rs.getString("FEEDBACK_TITLE");
                    f_comment=rs.getString("COMMENT");
                    rating=rs.getFloat("RATING");

                    System.out.println("Customer Name :- " + name + "\nAddress :- " + address + ", C" +
"\nCustomer Mobile Number :- " + customer_mobile_number + "\nProduct Name :- " + product_name + "\nProduct
Company :- " + product_company + "\nFeedback Title :- " + feedback_title + "\nFeedback Comment :- " + f_comment +
"\nRating :- " + rating + "\n");
                }
                stmt.close();
                System.out.println("Select query run successfully");
            }
            catch (Exception e)
            {
                e.printStackTrace();
                System.err.println(e.getClass().getName()+": "+e.getMessage());
                System.exit(0);
```

```
        }
}

void insert_query(Connection c)
{
        PreparedStatement stmt = null;
        String sql = "INSERT INTO dairy_management_system.FEEDBACK VALUES (?, ?, ?, ?)";

        try
        {
                Scanner in = new Scanner(System.in);

                stmt = c.prepareStatement(sql);

                System.out.println("\nEnter feedback title :- ");
                String n2=in.nextLine();

                System.out.println("\nEnter feedback comment :- ");
                String n4=in.nextLine();

                System.out.println("\nEnter customer mobile number :- ");
                BigDecimal n1=in.nextBigDecimal();

                System.out.println("\nEnter feedback rating :- ");
```

```
                float n3=in.nextFloat();

                stmt.setString(1, n2);
                stmt.setBigDecimal(2, n1);
                stmt.setFloat(3, n3);
                stmt.setString(4, n4);

                int affectedRows = stmt.executeUpdate();
                stmt.close();
                System.out.println("Table Inserted successfully: Rows Affected: " + affectedRows);
            }
            catch (Exception e)
            {
                e.printStackTrace();
                System.err.println(e.getClass().getName()+": "+e.getMessage());
                System.exit(0);
            }
        }

        void update_query(Connection c)
        {
            PreparedStatement stmt = null;
            String sql = "UPDATE dairy_management_system.FEEDBACK SET F_RATING = ? WHERE
CUSTOMER_MO_NO = ?";
```

```
try
{
        Scanner in = new Scanner(System.in);

        stmt = c.prepareStatement(sql);

        System.out.println("\nEnter new rating :- ");
        float n1=in.nextFloat();
        stmt.setFloat(1, n1);

        System.out.println("\nEnter customer mobile number for update rating :- ");
        BigDecimal n2=in.nextBigDecimal();
        stmt.setBigDecimal(2, n2);

        int affectedRows = stmt.executeUpdate();
        stmt.close();
        System.out.println("Table Updated successfully: Rows Updated: " + affectedRows);

}
catch (Exception e)
{
        e.printStackTrace();
        System.err.println(e.getClass().getName()+": "+e.getMessage());
        System.exit(0);
```

```
        }
}

void delete_query(Connection c)
{
        PreparedStatement stmt = null;
        String sql = "DELETE FROM dairy_management_system.FEEDBACK WHERE CUSTOMER_MO_NO = ?";
        try
        {
                Scanner in = new Scanner(System.in);

                stmt = c.prepareStatement(sql);

                System.out.println("\nEnter customer mobile number for delete feedback record :- ");
                BigDecimal n1=in.nextBigDecimal();
                stmt.setBigDecimal(1, n1);

                int affectedRows = stmt.executeUpdate();
                stmt.close();
                System.out.println("Table deleted successfully: Rows Updated: " + affectedRows);

        }
        catch (Exception e)
        {
```

```
                e.printStackTrace();
                System.err.println(e.getClass().getName()+": "+e.getMessage());
                System.exit(0);
        }
}

void call_store_procedure(Connection c)
{
        CallableStatement stmt = null;
        try
        {
                Scanner in = new Scanner(System.in);

                String sql = "call dairy_management_system.pro1(?,?,?)";
                stmt = c.prepareCall(sql);

                System.out.print("\nEnter outlet code :- ");
                String n1=in.nextLine();

                System.out.print("\nEnter time-interval(for job) :- ");
                int n2=in.nextInt();

                stmt.setString(1, n1);
                stmt.setInt(2, n2);
```

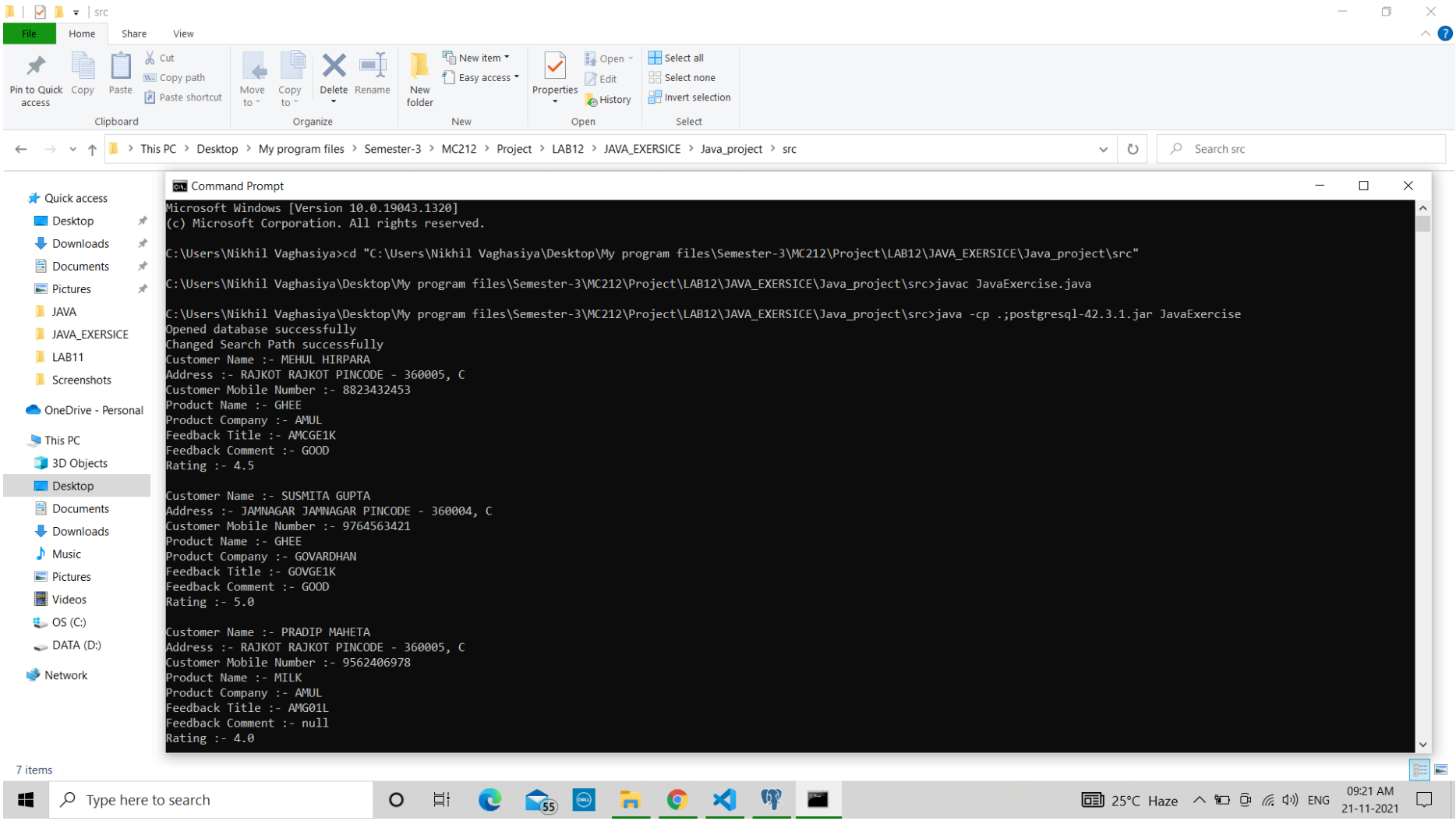
```
                stmt.setInt(3, 0);
                stmt.registerOutParameter(3, Types.INTEGER);

                stmt.execute();

                int n3=stmt.getInt(3);
                stmt.close();
                System.out.println("Procedure Called successfully");
                System.out.println("\nNumber of worker which work more than " + n2 + " years in " + n1 + " outlet :- "
+ n3);
            }
            catch (Exception e)
            {
                e.printStackTrace();
                System.err.println(e.getClass().getName()+": "+e.getMessage());
                System.exit(0);
            }
        }
}
```

➢ **Data retrieval using SELECT query :-**

➢ **Output:-**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Microsoft Windows [Version 10.0.19043.1320]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Nikhil Vaghasiya>cd "C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src"
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>javac JavaExercise.java
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>java -cp .;postgresql-42.3.1.jar JavaExercise
Opened database successfully
Changed Search Path successfully
Customer Name :- MEHUL HIRPARA
Address :- RAJKOT RAJKOT PINCODE - 360005, C
Customer Mobile Number :- 8823432453
Product Name :- GHEE
Product Company :- AMUL
Feedback Title :- AMCGE1K
Feedback Comment :- GOOD
Rating :- 4.5
Customer Name :- SUSMITA GUPTA
Address :- JAMNAGAR JAMNAGAR PINCODE - 360004, C
Customer Mobile Number :- 9764563421
Product Name :- GHEE
Product Company :- GOVARDHAN
Feedback Title :- GOVGE1K
Feedback Comment :- GOOD
Rating :- 5.0
Customer Name :- PRADIP MAHETA
Address :- RAJKOT RAJKOT PINCODE - 360005, C
Customer Mobile Number :- 9562406978
Product Name :- MILK
Product Company :- AMUL
Feedback Title :- AMG01L
Feedback Comment :- null
Rating :- 4.0
7 items
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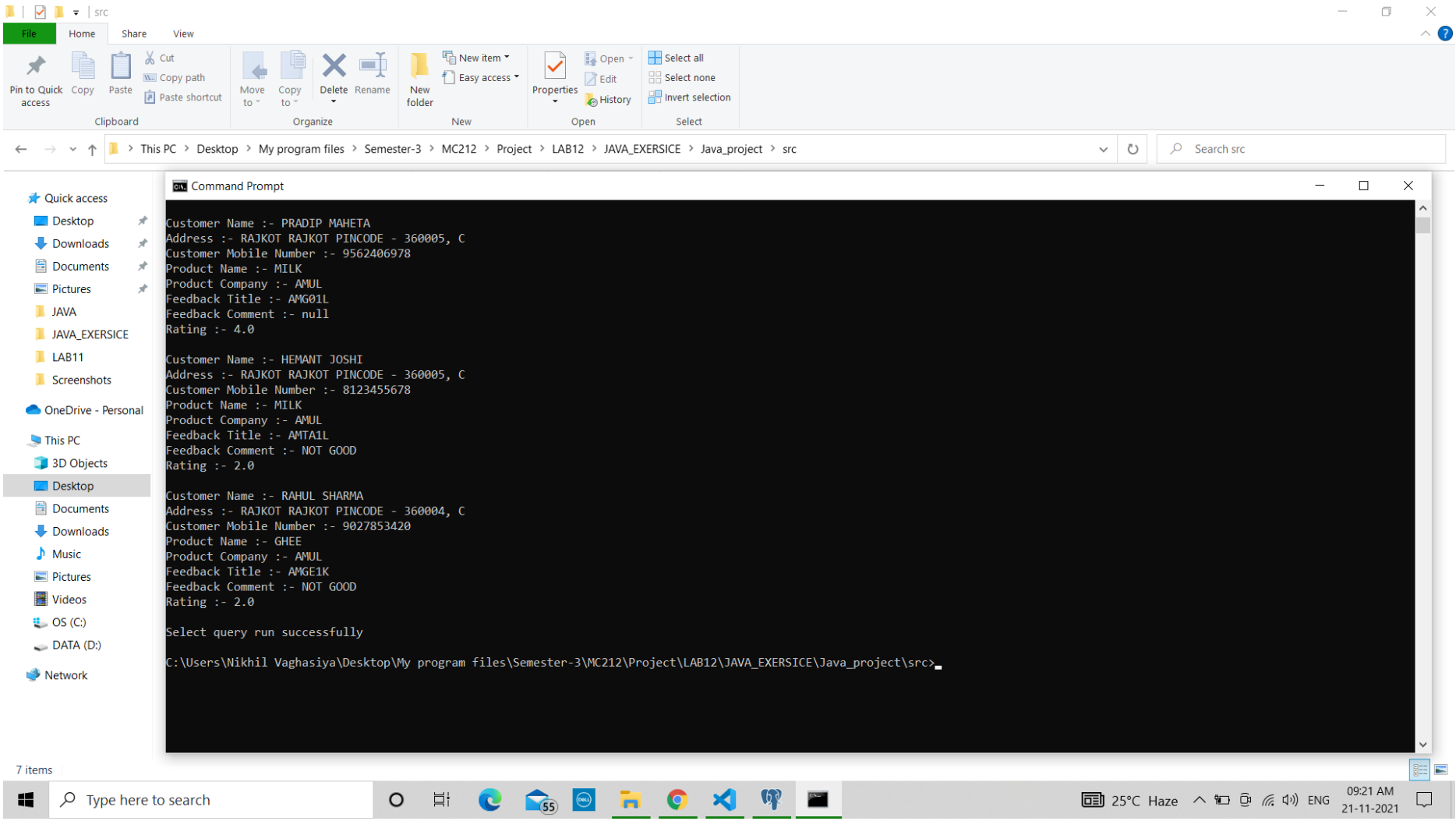
21-11-2021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LAB11
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OS (C:)
DATA (D:)
Network
Command Prompt
Customer Name :- PRADIP MAHETA
Address :- RAJKOT RAJKOT PINCODE - 360005, C
Customer Mobile Number :- 9562406978
Product Name :- MILK
Product Company :- AMUL
Feedback Title :- AMG01L
Feedback Comment :- null
Rating :- 4.0
Customer Name :- HEMANT JOSHI
Address :- RAJKOT RAJKOT PINCODE - 360005, C
Customer Mobile Number :- 8123455678
Product Name :- MILK
Product Company :- AMUL
Feedback Title :- AMTA1L
Feedback Comment :- NOT GOOD
Rating :- 2.0
Customer Name :- RAHUL SHARMA
Address :- RAJKOT RAJKOT PINCODE - 360004, C
Customer Mobile Number :- 9027853420
Product Name :- GHEE
Product Company :- AMUL
Feedback Title :- AMGE1K
Feedback Comment :- NOT GOOD
Rating :- 2.0
Select query run successfully
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>
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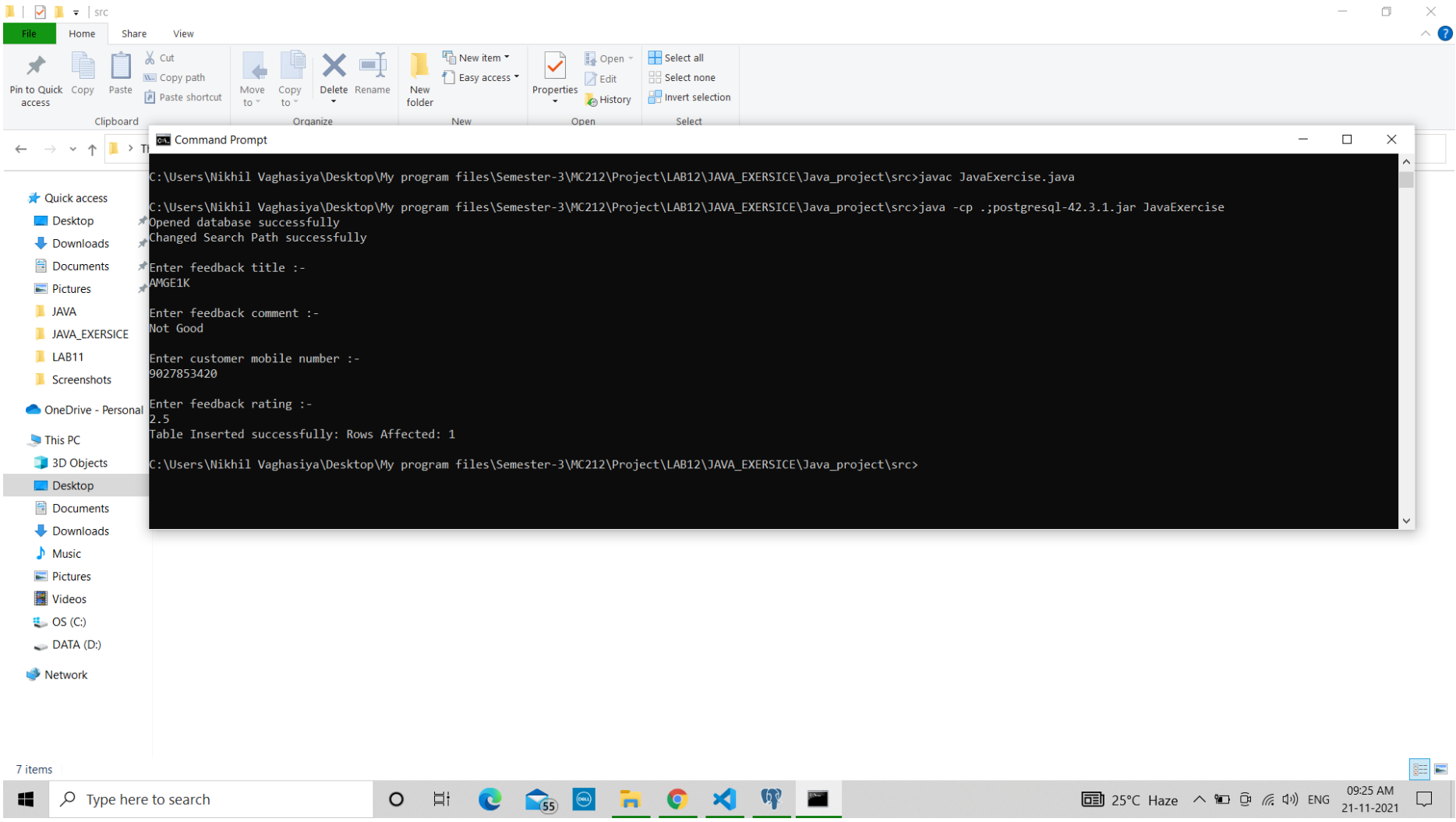
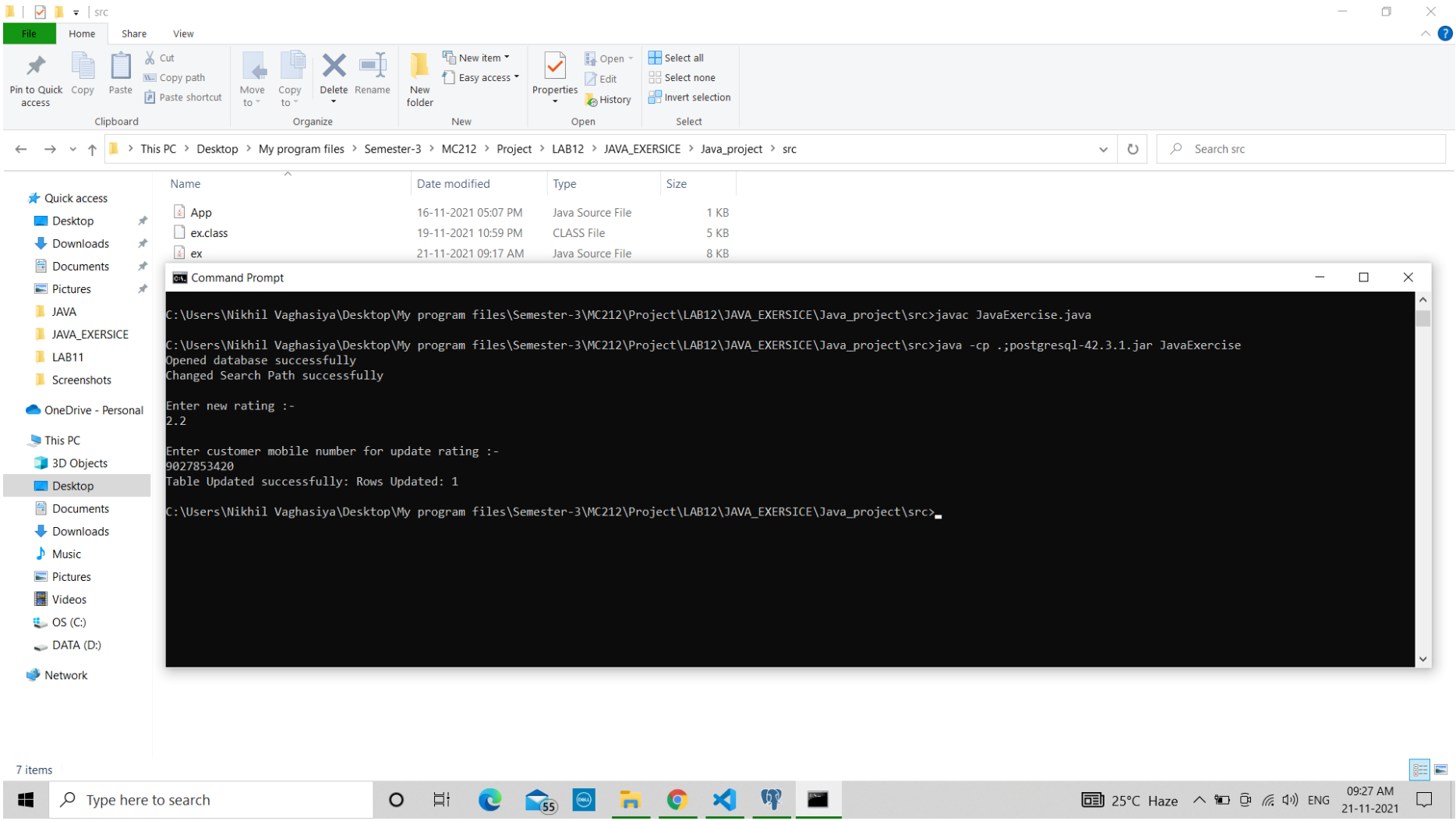
➢ **Add new data using INSERT query:-**

➢ **Output:-**



➢ **Data modification using UPDATE query:-**

➢ **Output:-**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App 16-11-2021 05:07 PM Java Source File 1 KB
ex.class 19-11-2021 10:59 PM CLASS File 5 KB
ex 21-11-2021 09:17 AM Java Source File 8 KB
Command Prompt
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>javac JavaExercise.java
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>java -cp .;postgresql-42.3.1.jar JavaExercise
Opened database successfully
Changed Search Path successfully
Enter new rating :-
2.2
Enter customer mobile number for update rating :-
9027853420
Table Updated successfully: Rows Updated: 1
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>
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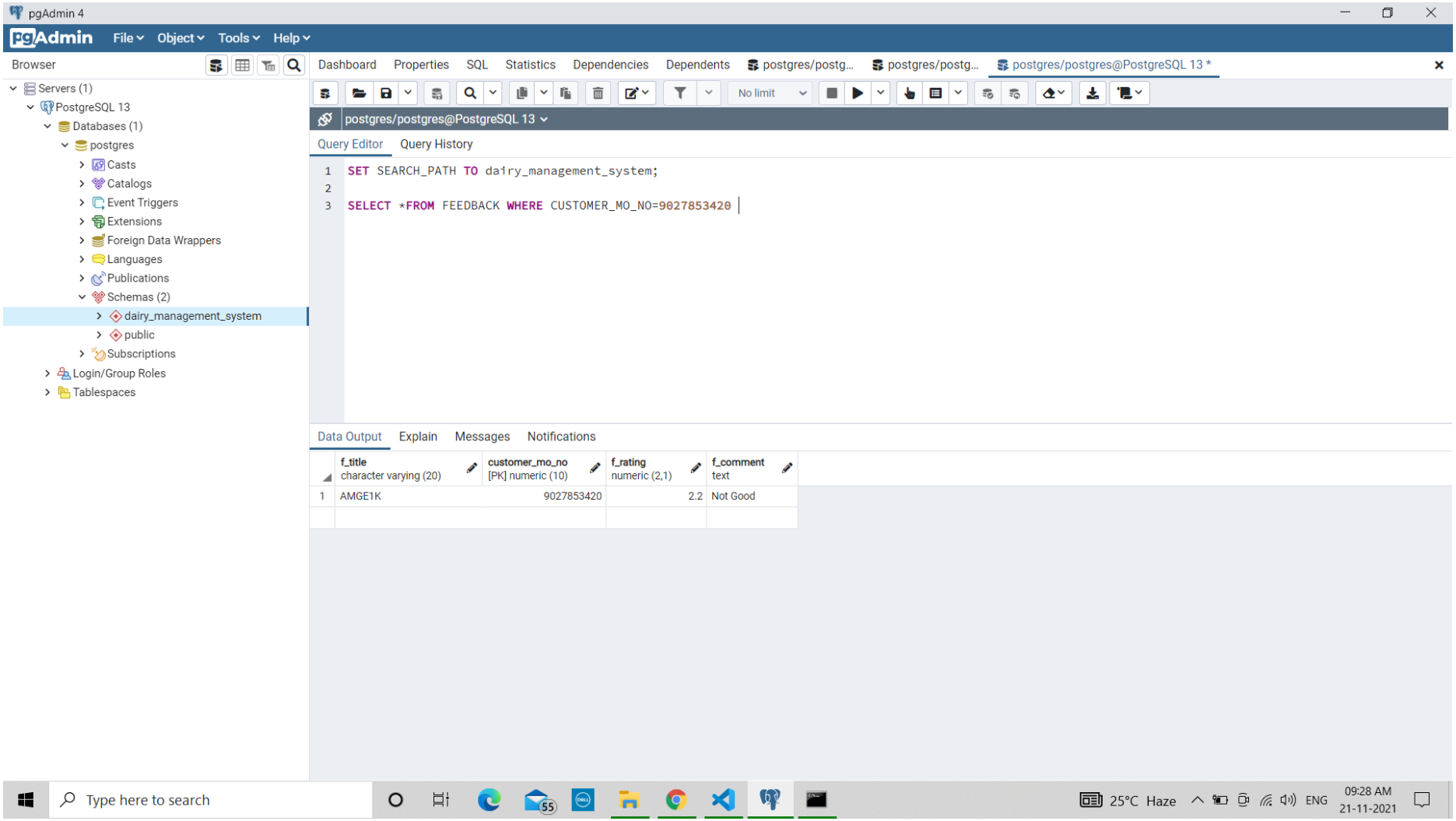
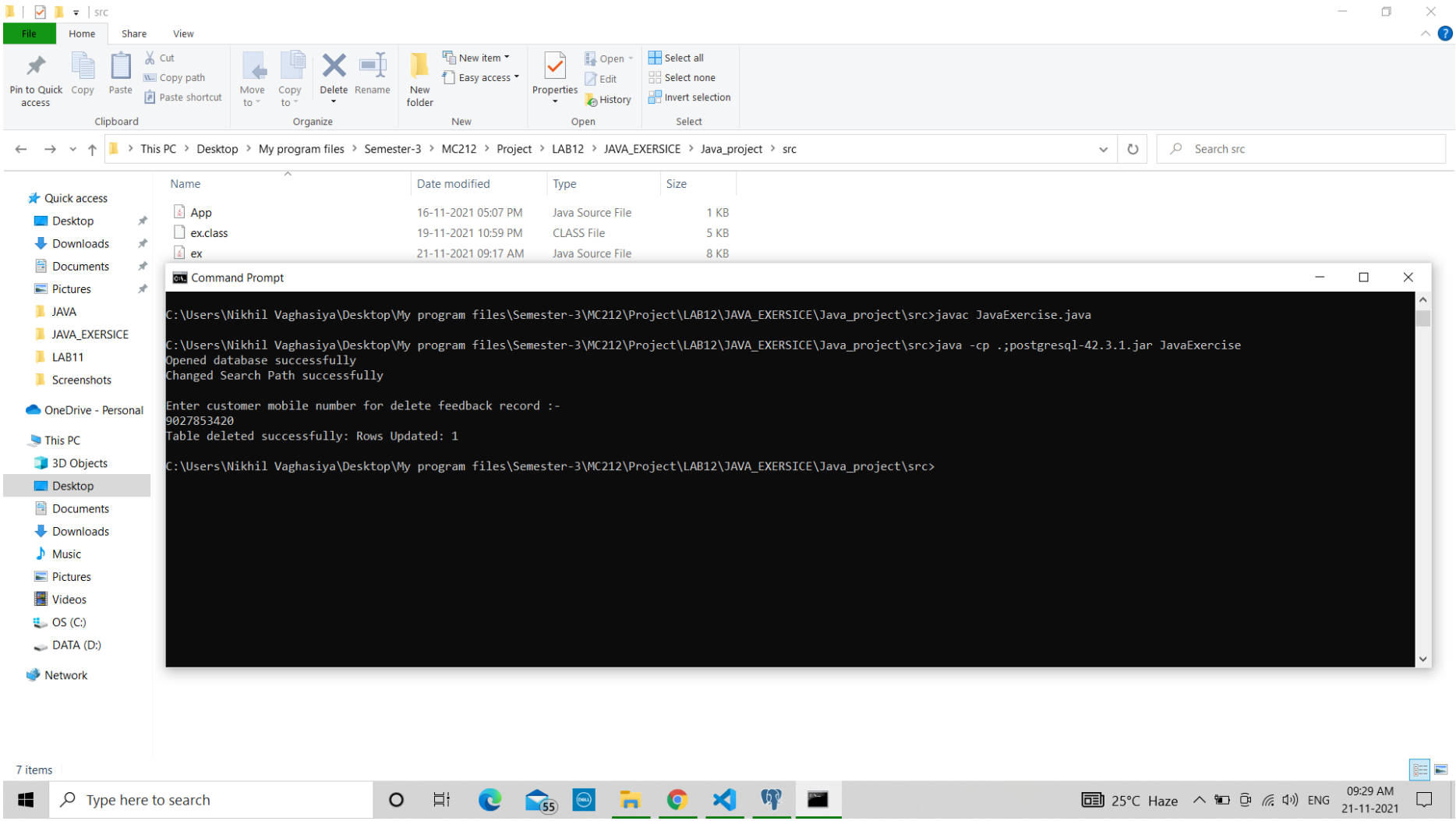


➢ **Remove the rows using DELETE query:-**

➢ **Output:-**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Invert selection
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Videos
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App 16-11-2021 05:07 PM Java Source File 1 KB
ex.class 19-11-2021 10:59 PM CLASS File 5 KB
ex 21-11-2021 09:17 AM Java Source File 8 KB
Command Prompt
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>javac JavaExercise.java
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>java -cp .;postgresql-42.3.1.jar JavaExercise
Opened database successfully
Changed Search Path successfully
Enter customer mobile number for delete feedback record :-
9027853420
Table deleted successfully: Rows Updated: 1
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>
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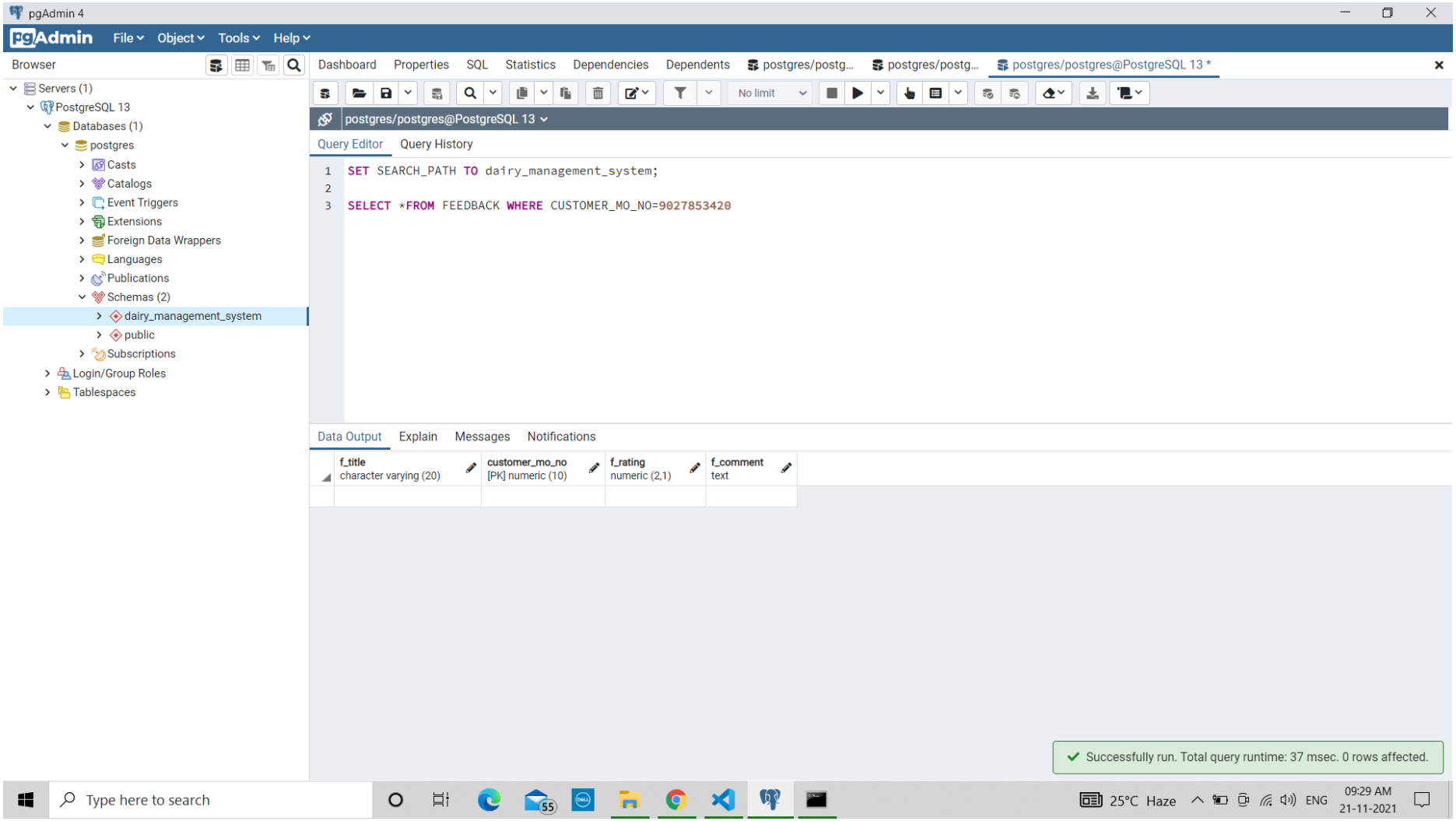
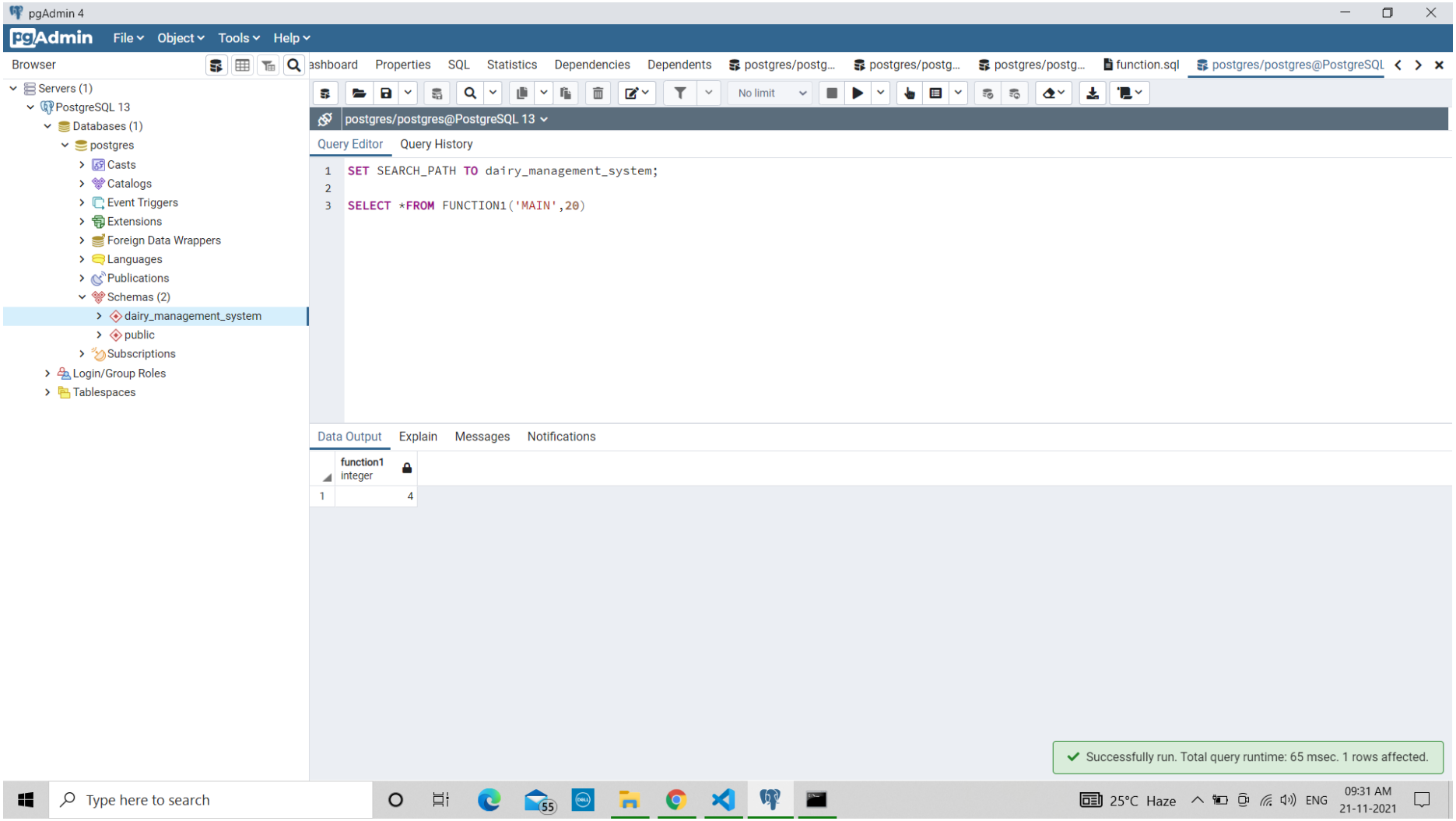


➢ **Calling Stored Procedure:-**

➢ **Output:-**


pgAdmin 4
File
Object
Tools
Help
Browser
Servers (1)
PostgreSQL 13
Databases (1)
postgres
Casts
Catalogs
Event Triggers
Extensions
Foreign Data Wrappers
Languages
Publications
Schemas (2)
dairy_management_system
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Subscriptions
Login/Group Roles
Tablespaces
Properties
SQL
Statistics
Dependencies
Dependents
function.sql
postgres/postgres@PostgreSQL
No limit
postgres/postgres@PostgreSQL 13
Query Editor
Query History
1 SET SEARCH_PATH TO dairy_management_system;
2
3 SELECT *FROM FUNCTION1('MAIN',20)
Data Output
Explain
Messages
Notifications
function1
integer
1 4
Successfully run. Total query runtime: 65 msec. 1 rows affected.
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25°C Haze
ENG
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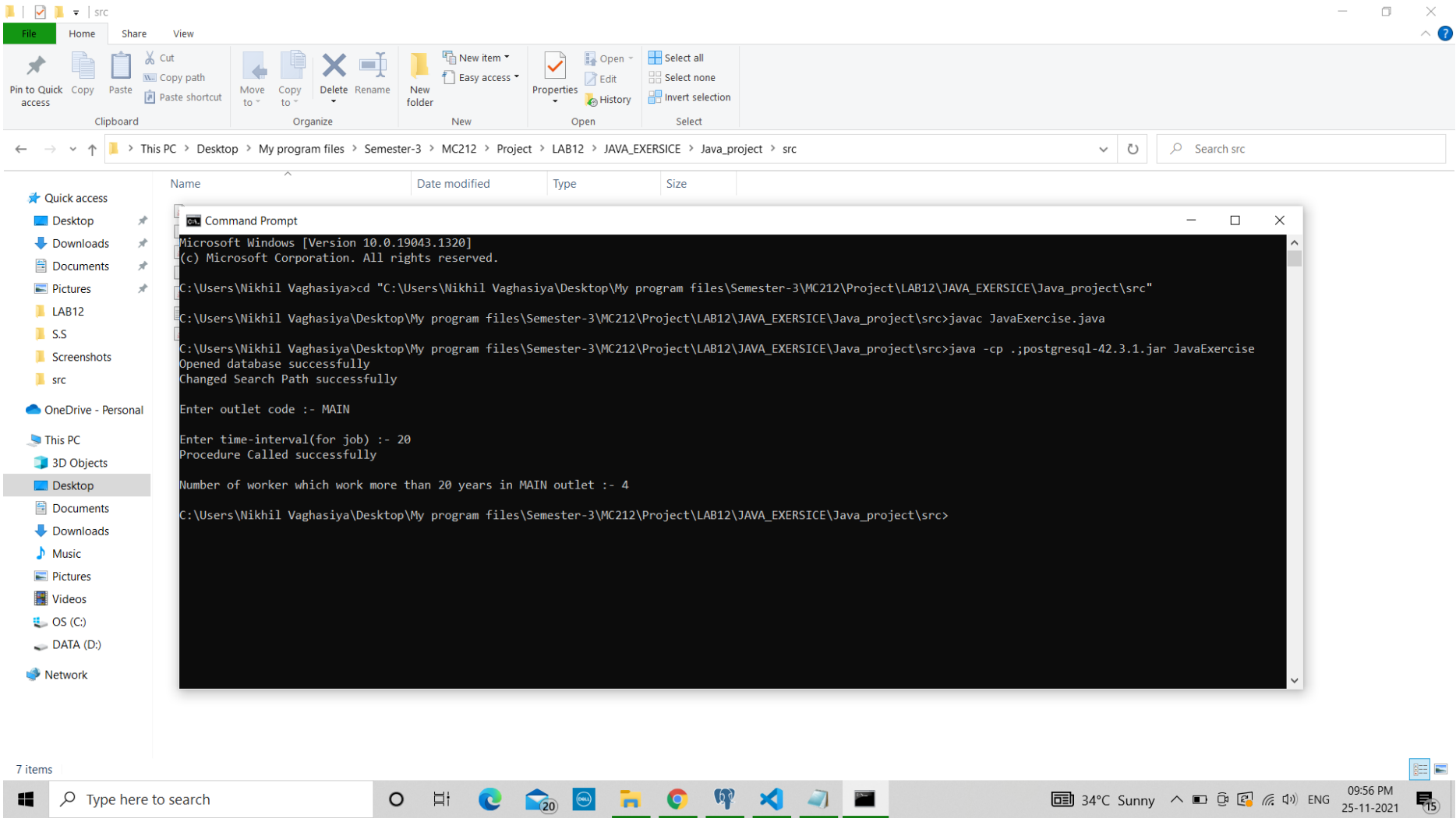
21-11-2021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Command Prompt
Microsoft Windows [Version 10.0.19043.1320]
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C:\Users\Nikhil Vaghasiya>cd "C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src"
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>javac JavaExercise.java
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>java -cp .;postgresql-42.3.1.jar JavaExercise
Opened database successfully
Changed Search Path successfully
Enter outlet code :- MAIN
Enter time-interval(for job) :- 20
Procedure Called successfully
Number of worker which work more than 20 years in MAIN outlet :- 4
C:\Users\Nikhil Vaghasiya\Desktop\My program files\Semester-3\MC212\Project\LAB12\JAVA_EXERSICE\Java_project\src>
7 items
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34°C Sunny
ENG
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25-11-2021