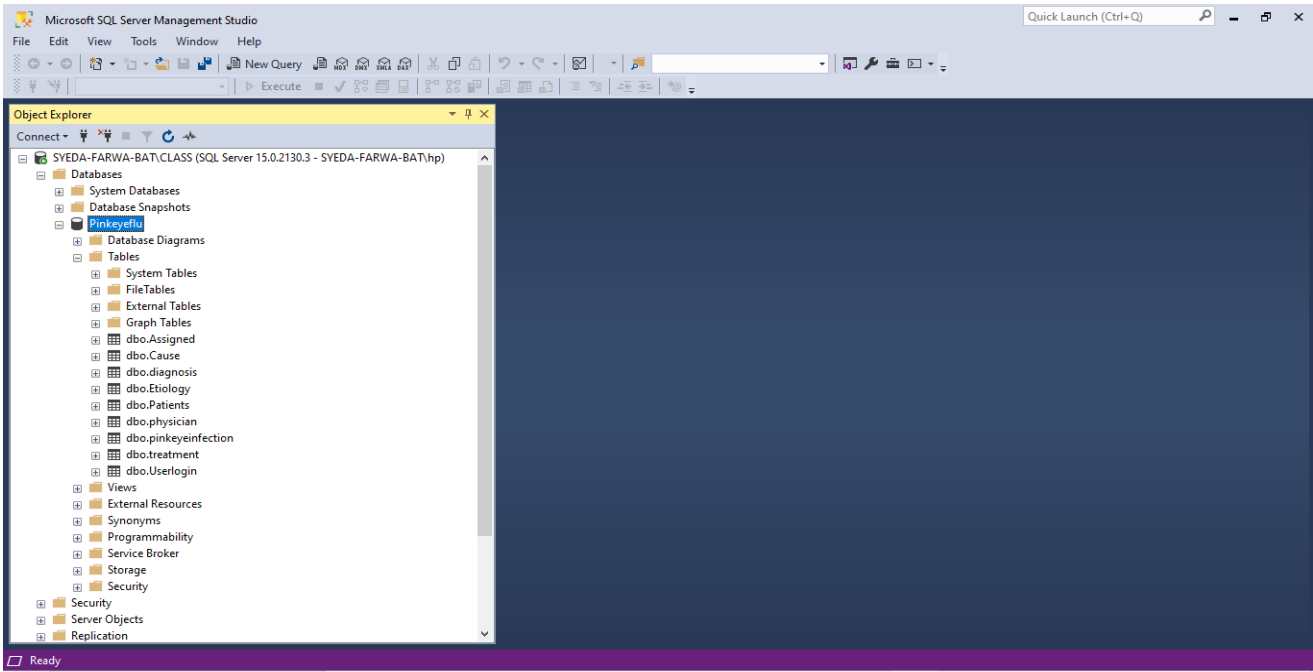


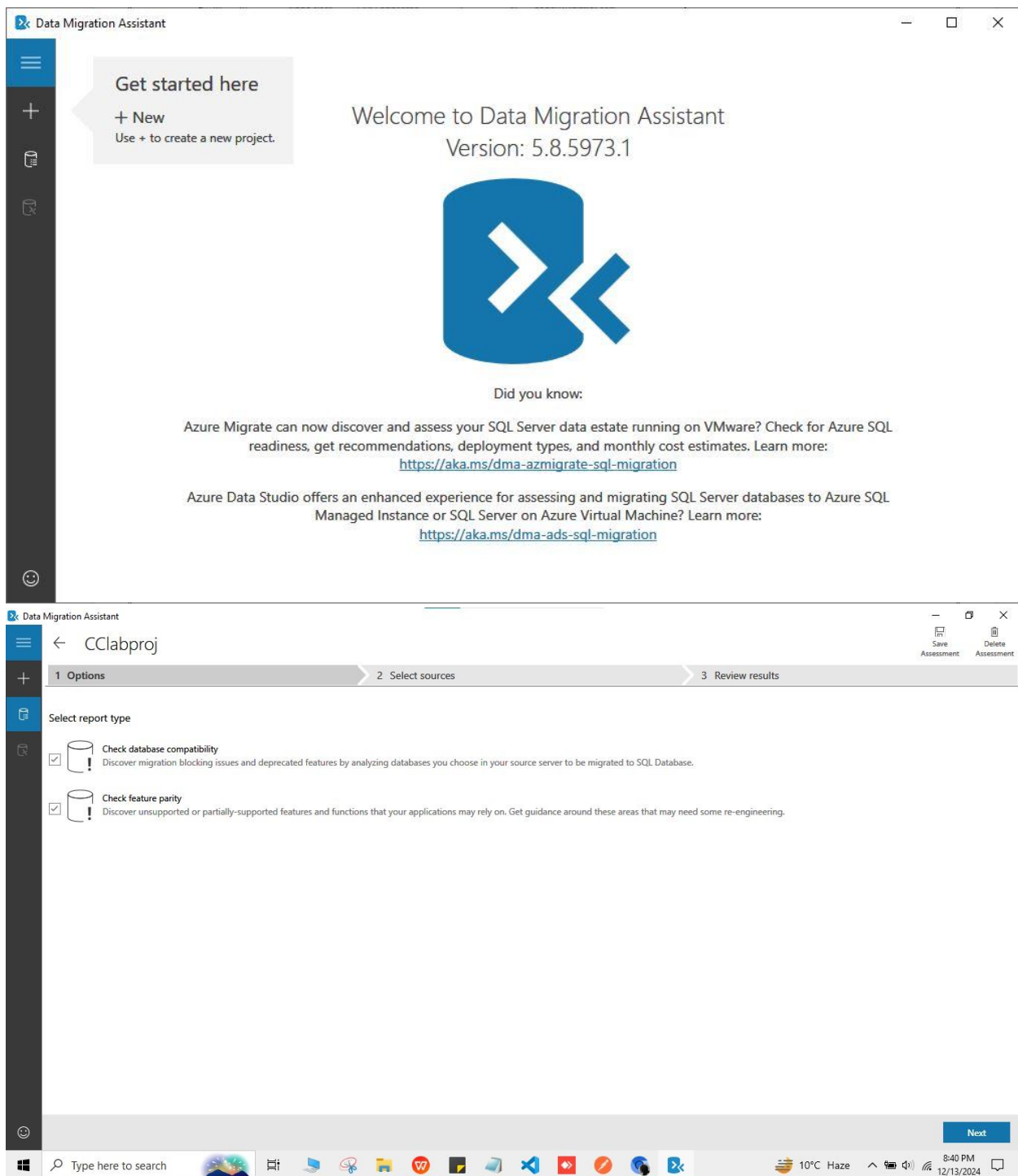
CLOUD COMPUTING

# LAB PROJECT

- ❖ Submitted to: Engr. Shoaib
- ❖ Submitted by: Syeda Farwa Batool(2022-bse-071)

Eman Zai (2022-bse-049)





Data Migration Assistant

← CClabproj

1 Options ✓ 2 Select sources

+ Add sources - Remove sources

Name

Ad Hoc Queries From Exported File [Learn more](#)

Connect to a server

Connect to a server and select sources

Server name

SYEDA-FARWA-BAT\CLASS

Authentication type

Windows Authentication

Connection properties

☒ Encrypt connection

☐ Trust server certificate

SQL Server permissions

To run the selected advisor(s), credentials used to connect to a source SQL Server instance must be a member of the sysadmin server role.

Connect

Data Migration Assistant

← CClabproj

1 Options ✓ 2 Select sources

+ Add sources - Remove sources

Name

Ad Hoc Queries From Exported File [Learn more](#)

Add sources

Connect to a server and select sources

☒ SYEDA-FARWA-BAT\CLASS

☒ patientDB

☐ Pinkeyeflu

Enter folder path containing files with extended events or traces to be assessed

Browse

Add

Data Migration Assistant

← CClabproj

Save Assessment

Delete Assessment

1 Options

2 Select sources

3 Review results

Add sources

Remove sources

Name	Ad Hoc Queries From Exported File <a href="#">Learn more</a>	Compatibility Level	Database Size
▼ SYEDA-FARWA-BAT\CLASS (SQL Server 2019) (1)			
patientDB	<input type="text"/>	Brows 150	16.00 MB

Back

Start Assessment

(1383) Azure SQL Database dep... x

(1383) Migrating SQL Database x

Create SQL Database - Microsof... x

+

https://portal.azure.com/#create/Microsoft.SQLDatabase

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

syedafarwabatool572@...  
DEFAULT DIRECTORY (SYEDAFAR...

Home > SQL databases >

Create SQL Database

Microsoft

Basics

Networking

Security

Additional settings

Tags

Review + create

Create a SQL database with your preferred configurations. Complete the Basics tab then go to Review + Create to provision with smart defaults, or visit each tab to customize. [Learn more](#)

Want to try Azure SQL Database for free? Create a free serverless database with the first 100,000 vCore seconds, 32GB of data, and 32GB of backup storage free per month for the lifetime of the subscription. [Learn more](#)

Apply offer (Preview)

SQL Database Hyperscale: Low price, high scalability, and best feature set: [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Review + create

Next: Networking >

Microsoft Azure portal showing the deployment details for a Microsoft SQL Database. The deployment is complete.

**Deployment details:**

- Deployment name: Microsoft.SQLDatabase.newDatabaseNewServer\_8715a38cb1a6427a90af2
- Subscription: Azure for Students
- Resource group: databasemigration
- Start time: 12/13/2024, 9:29:30 PM
- Correlation ID: 715a2af7-934e-4736-8d9b-e62ebb5...

**Next steps:**

- Go to resource

**Give feedback:**

- Tell us about your experience with deployment

**Cost management:**

- Get notified to stay within your budget and prevent unexpected charges on your bill. [Set up cost alerts >](#)

**Microsoft Defender for Cloud:**

- Secure your apps and infrastructure. [Go to Microsoft Defender for Cloud >](#)

**Free Microsoft tutorials:**

- [Start learning today >](#)

**Work with an expert**

## Connect to Server

# SQL Server

Server type: Database Engine

Server name: pinkeyeflu.database.window.net

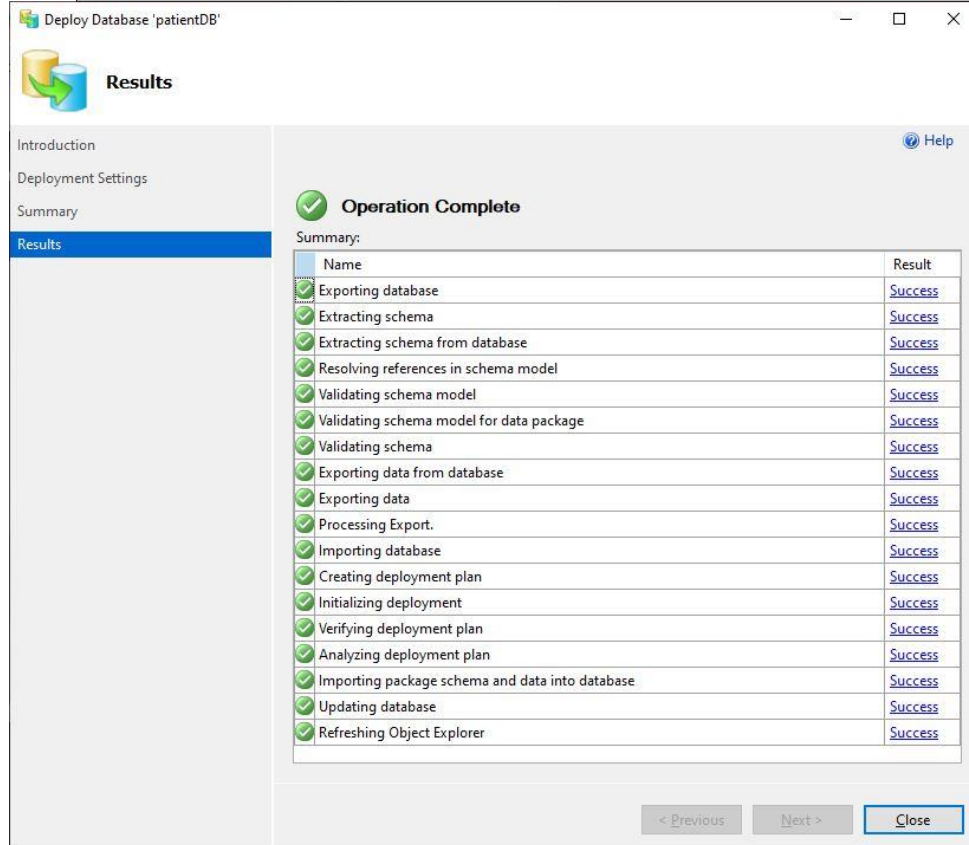
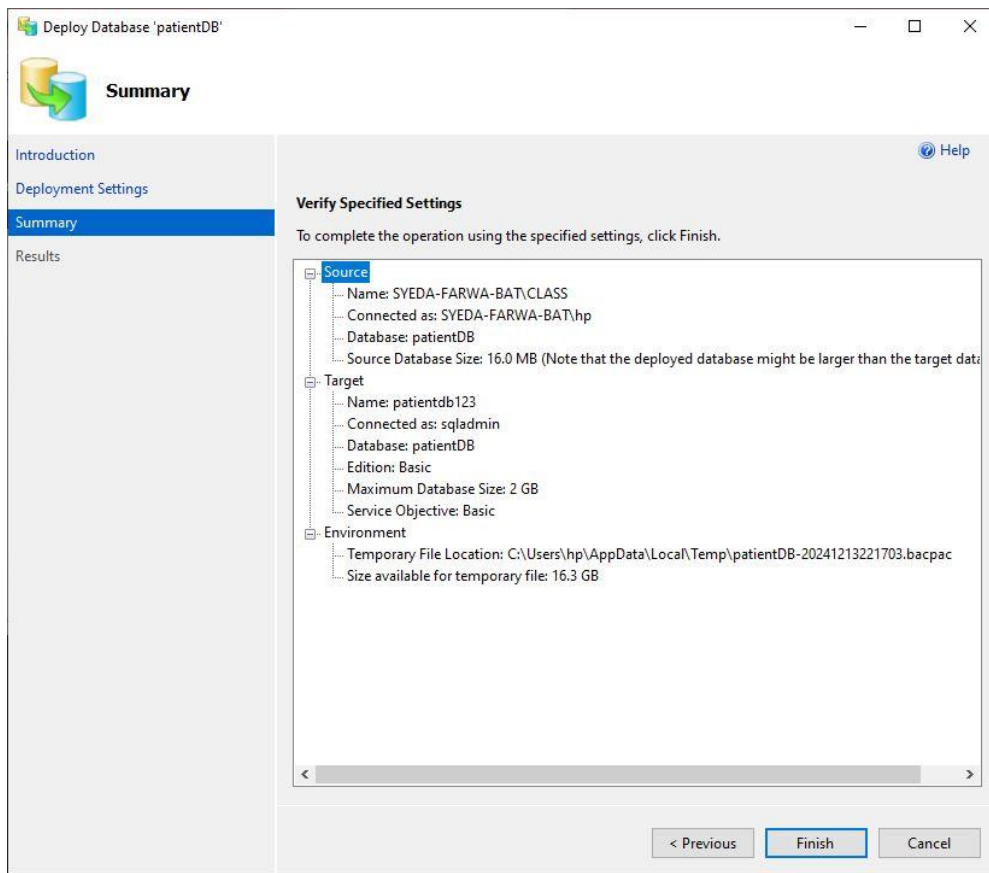
Authentication: SQL Server Authentication

Login: sqladmin

Password:

☐ Remember password

[Connect](#) [Cancel](#) [Help](#) [Options >>](#)



SQL databases - Microsoft Azure

https://portal.azure.com/#browse/Microsoft.Sql%2FServers%2Fdatabases

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

syedafarwabatool572@...  
DEFAULT DIRECTORY (SYEDAFAR...)

Home >

## SQL databases

Default Directory (syedafarwabatool572gmail.onmicrosoft.com)

+ Create Reservations Manage view Refresh Export to CSV Open query Assign tags Delete

Filter for any field... Subscription equals all Resource group equals all Location equals all Add filter

Showing 1 to 4 of 4 records. No grouping List view

Name	Server	Replica type	Pricing tier	Location	Subscription
dbmigration (dbmigration/dbmigration)	dbmigration	--	Free General Purpo...	West US	Azure for Students
patientDB (patientdb123/patientDB)	patientdb123	--	Basic: 5 DTUs	Germany West Central	Azure for Students
Pinkeyeflu (patientdb123/Pinkeyeflu)	patientdb123	--	Basic: 5 DTUs	Germany West Central	Azure for Students
sqladmin (patientdb123/sqladmin)	patientdb123	--	General Purpose: G...	Germany West Central	Azure for Students

< Previous Page 1 of 1 Next >

Give feedback

Pinkeyeflu (patientdb123/Pinke... Meet - cpi-qjrm-qtz

https://portal.azure.com/#@syedafarwabatool572gmail.onmicrosoft.com/resource/subscriptions/92690366-8f31-41f8-9c7c-c48ca5a...

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

syedafarwabatool572@...  
DEFAULT DIRECTORY

Home > Pinkeyeflu (patientdb123/Pinkeyeflu)

## Pinkeyeflu (patientdb123/Pinkeyeflu) | Connection strings

SQL database

Search

Overview Activity log Tags Diagnose and solve problems Query editor (preview) Mirror database in Fabric (preview) Settings Compute + storage Connection strings Properties Locks Data management Integrations

ADO.NET JDBC ODBC PHP Go

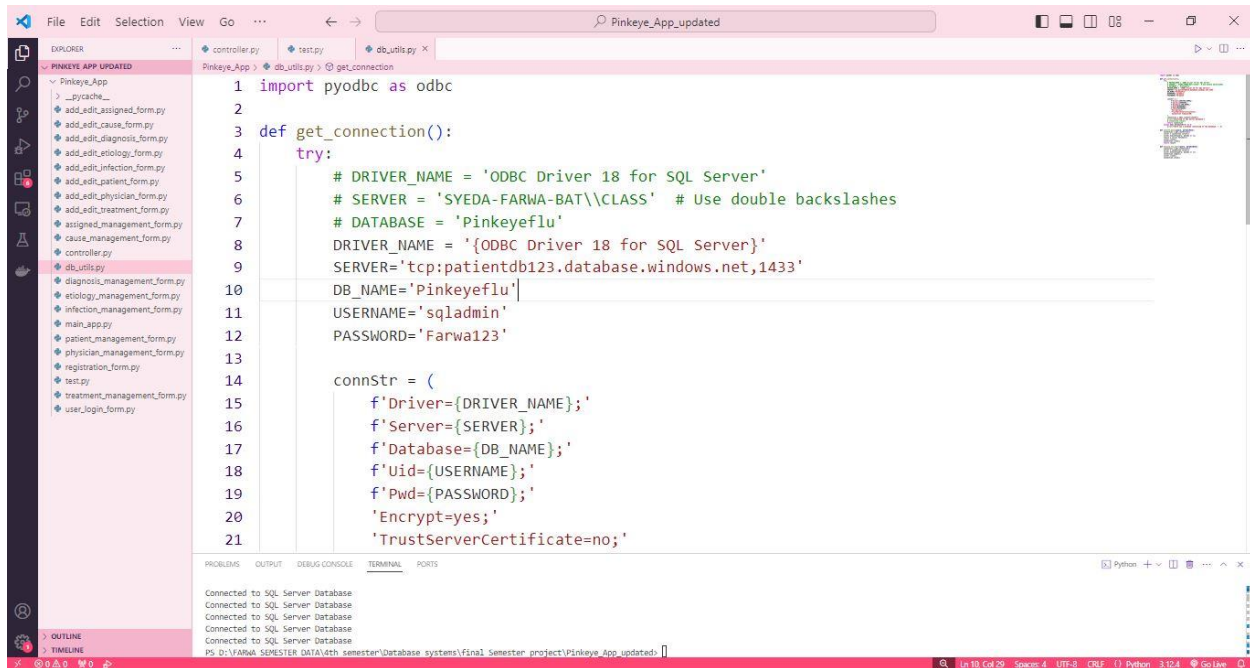
ODBC (Includes Node.js) (SQL authentication)

```
Driver={ODBC Driver 18 for SQL Server};Server=tcp:patientdb123.database.windows.net,1433;Database=Pinkeyeflu;Uid=sqladmin;Pwd={your_password_here};Encrypt=yes;TrustServerCertificate=no;Connection Timeout=30;
```

Copy Copied

Download ODBC driver for SQL server



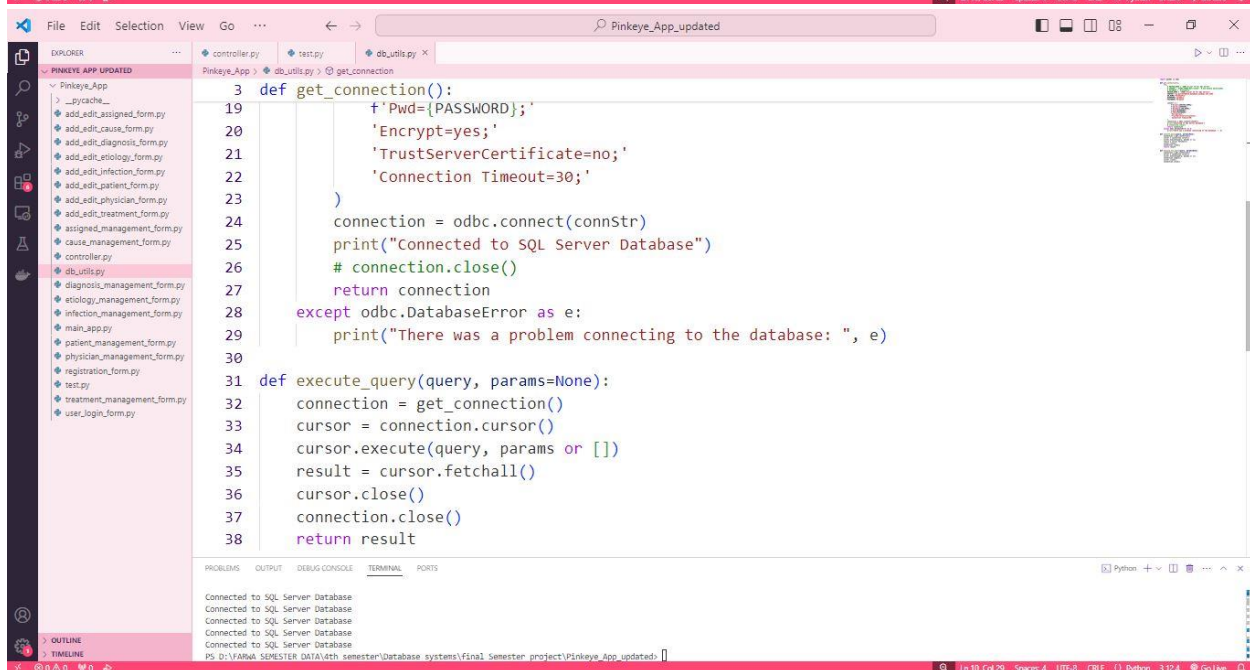


The screenshot shows the Visual Studio Code editor with the file `Pinkeye_App_updated/db_utils.py` open. The `get_connection()` function is defined, which uses `pyodbc` to connect to a SQL Server database. The function sets the driver, server, database, username, and password, and returns the connection object.

```
1 import pyodbc as odbc
2
3 def get_connection():
4     try:
5         # DRIVER_NAME = 'ODBC Driver 18 for SQL Server'
6         # SERVER = 'SYEDA-FARWA-BAT\\CLASS' # Use double backslashes
7         # DATABASE = 'Pinkeyeflu'
8         DRIVER_NAME = '{ODBC Driver 18 for SQL Server}'
9         SERVER='tcp:patientdb123.database.windows.net,1433'
10        DB_NAME='Pinkeyeflu'
11        USERNAME='sqladmin'
12        PASSWORD='Farwa123'
13
14        connStr = (
15            f'Driver={DRIVER_NAME};'
16            f'Server={SERVER};'
17            f'Database={DB_NAME};'
18            f'Uid={USERNAME};'
19            f'Pwd={PASSWORD};'
20            'Encrypt=yes;'
21            'TrustServerCertificate=no;'
```

The terminal output shows the connection status:

```
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
PS D:\VARNA SEMESTER DATA\4th semester\Database systems\Final Semester project\Pinkeye_App_updated >
```



The screenshot shows the Visual Studio Code editor with the file `Pinkeye_App_updated/db_utils.py` open. The `execute_query` function is defined, which uses the `get_connection` function to connect to the database and execute a query. The function returns the result of the query.

```
3 def get_connection():
19         f'Pwd={PASSWORD};'
20         'Encrypt=yes;'
21         'TrustServerCertificate=no;'
22         'Connection Timeout=30;'
23     )
24     connection = odbc.connect(connStr)
25     print("Connected to SQL Server Database")
26     # connection.close()
27     return connection
28 except odbc.DatabaseError as e:
29     print("There was a problem connecting to the database: ", e)
30
31 def execute_query(query, params=None):
32     connection = get_connection()
33     cursor = connection.cursor()
34     cursor.execute(query, params or [])
35     result = cursor.fetchall()
36     cursor.close()
37     connection.close()
38     return result
```

The terminal output shows the connection status:

```
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
Connected to SQL Server Database
PS D:\VARNA SEMESTER DATA\4th semester\Database systems\Final Semester project\Pinkeye_App_updated >
```

