



PYTHON DAY - 14





DATABASE MANAGEMENT



DATABASE



- A database is a structured collection of data that is organized and stored in a way that allows for efficient retrieval and manipulation of information
- A database typically consists of tables, which contain rows and columns of data, and can be accessed and manipulated using specialized software called a database management system (DBMS)
- The DBMS provides a set of tools and interfaces for users to interact with the data in the database, including querying the data, modifying it, and generating reports.

SQL



- SQL, which stands for Structured Query Language, is a programming language that is used to manage relational databases.
- SQL is a standard language that is used to create, modify, and retrieve data from databases, and it is supported by most relational database management systems (RDBMS) such as MySQL, Oracle, Microsoft SQL Server, and PostgreSQL, among others.



ORACLE

PostgreSQL

INSTALLATION



```
pip install mysql-connector-python
```

CREATE CONNECTION



```
import mysql.connector as connector
```

```
db = connector.connect(host="localhost", user="root", password=" ")
```

```
print("connection established: ", db)
```

CREATE CURSOR



```
cursor = db.cursor()
```

```
cursor.execute("create database marklist")
```

```
print("Database created")
```


VIEW AVAILABLE DATABASE



```
cursor.execute("show databases")  
  
for x in cursor:  
    print(x)
```


USE A DATABASE



```
cursor.execute("use marklist")  
  
print("success")
```

CREATE TABLE



```
cursor.execute("create table english (name varchar(255), marks int)")
```

INSERT RECORD



```
sql = "insert into english (name, marks) values (%s, %s)"
```

```
val = ("jeeva", 85)
```

```
cursor.execute(sql, val)
```

```
db.commit()
```

INSERT MULTIPLE RECORD



```
sql = "insert into english (name, marks) values (%s, %s)"  
val = [("jeeva", 85), ("sam", 92), ("manoj", 77), ("dafin", 98)]  
cursor.executemany(sql, val)  
db.commit()
```

DISPLAY



```
cursor.execute("select * from english")  
  
result = cursor.fetchall()  
  
for x in result:  
    print(x)
```

USE FILTER TO SEARCH



```
cursor.execute("select * from english where name = 'dafin' ")

result = cursor.fetchall()

for x in result:

    print(x)
```

UPDATE



```
cursor.execute("update english set marks = 78 where name='jeeva'")  
  
db.commit()
```


DELETE



```
cursor.execute("delete from english where name='sam' ")
```

```
db.commit()
```

DELETE TABLE



```
cursor.execute("drop table english")
```



ASSIGNMENT

2



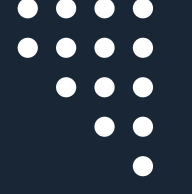
ATM SIMULATOR



Rules:

- Create ATM simulator using class and object in python
- It should check username and password and allow the user to use ATM
- It should have balance, withdrawl, and deposit options
- Everytime the user tries to use the options, send 6 digit OTP using random module and ask the user to enter that OTP and verify





THANKS FOR WATCHING

