**Utility: Performing CRUD operations on different databases using Python**

Python installed**:** Python 3.8.4 32-bit

* Installation link: <https://www.python.org/downloads/>

IDE used: Visual Studio Code

* Installation link: <https://code.visualstudio.com/download>.

**MongoDB**

**MongoDB** is a [cross-platform](https://en.wikipedia.org/wiki/Cross-platform) [document-oriented database](https://en.wikipedia.org/wiki/Document-oriented_database) program. Classified as a [NoSQL](https://en.wikipedia.org/wiki/NoSQL) database program, MongoDB uses [JSON](https://en.wikipedia.org/wiki/JSON)-like documents with optional [schemas](https://en.wikipedia.org/wiki/Database_schema). MongoDB is developed by [MongoDB Inc.](https://en.wikipedia.org/wiki/MongoDB_Inc.) and licensed under the Server Side Public License (SSPL).

**Nokia, Adobe, EBay and Google**

Installations required:

1. Robo 3T

* Installation link:

<https://robomongo.org/download>

1. MongoDB Community Server

* Installation link:

<https://www.mongodb.com/try/download/community>

Python Library Used: pymongo

Reference: <https://youtu.be/onuOSdOWcqQ>

**MySQL**

**MySQL** is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications. The most common use for MySQL however, is for the purpose of a web database.

**Airbnb**

Installations required:

1. MySQL Community Server 8.0.21

* Installation link:

<https://dev.mysql.com/downloads/mysql/>

1. MySQL Workbench 8.0.21

* Installation link:

<https://dev.mysql.com/downloads/workbench/>

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Python Library Used: MySQL-connector-python

Reference: <https://youtu.be/g60QghtJmjY>

**MS-SQL**

**Microsoft SQL Server** is a [relational database management system](https://en.wikipedia.org/wiki/Relational_database_management_system) developed by [Microsoft](https://en.wikipedia.org/wiki/Microsoft). As a [database server](https://en.wikipedia.org/wiki/Database_server), it is a [software product](https://en.wikipedia.org/wiki/Software_product) with the primary function of storing and retrieving data as requested by other [software applications](https://en.wikipedia.org/wiki/Software_application)—which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many [concurrent users](https://en.wikipedia.org/wiki/Concurrent_user).

**IBM, SAP**

Installations required:

1. Microsoft SQL Server 2019

* Installation link:

<https://www.microsoft.com/en-us/sql-server/sql-server-downloads>

1. SQL Server Management Studio (SSMS):

* Installation link:

<https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?redirectedfrom=MSDN&view=sql-server-ver15>

Python Library Used: pyodbc

Reference: <https://youtu.be/aF552bMEcO4>

**Oracle Database**

**Oracle Database** is a multi-model database management system produced and marketed by Oracle Corporation. It is a database commonly used for running online transaction processing (OLTP), data warehousing and mixed database workloads.

**AU Small Finance Bank, OM Logistics ltd.**

Installations required:

## SQL Developer 20.2

## Installation link:

## <https://www.oracle.com/tools/downloads/sqldev-downloads.html>

#### Oracle Database Express Edition (XE) Release 11.2.0.2.0 (11gR2)

* Installation link:

<https://www.oracle.com/database/technologies/xe-prior-releases.html>

#### Java SE Development Kit 8u261

* Installation link:

<https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html>

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Python Library Used: cx\_Oracle

**PostgreSQL Database**

It is a highly stable database management system, backed by more than 20 years of community development which has contributed to its high levels of resilience, integrity, and correctness. PostgreSQL is used as the primary data store or data warehouse for many web, mobile, geospatial, and analytics applications.

**IMDB, Spotify**

Installations required:

## PostgreSQL

## Installation link:

https://www.enterprisedb.com/downloads/postgres-postgresql-

downloads

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Python Library Used: psycopg2

Reference:  <https://youtu.be/2PDkXviEMD0>