**Assignment: Deploying a Flask Application with MySQL on Separate Virtual Machines**

**Objective:**

In this assignment, you will configure two virtual machines (VMs) to simulate a basic client-server architecture. One VM will run a Flask web application, and the other will host a MySQL database. The two machines will communicate with each other over a host-only network.

**Task Overview:**

You are required to:

1. **Set up VM1** as a Flask application server.
2. **Set up VM2** as a MySQL database server.
3. Configure networking such that:
   * VM1 has **two network adapters**:
     + **NAT adapter** (for internet access)
     + **Host-Only adapter** (for local communication)
   * VM2 has **only one adapter**:
     + **Host-Only adapter**
4. Establish a connection from the Flask app (on VM1) to the MySQL database (on VM2) **using the host-only adapter**.

**Create database**

On VM2 ( Database machine )

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**## Prepare Database for MySQL connectivity**

\* with root login

```SQL

CREATE DATABASE productdb;

CREATE USER appuser@'%' IDENTIFIED BY 'appuser@123';

GRANT SELECT, UPDATE, INSERT, DELETE ON productdb.\* TO appuser@'%';

USE productdb;

CREATE TABLE users(id INT, username VARCHAR(30), password VARCHAR(20));

INSERT INTO users VALUES

(1, 'admin', 'admin@123'),

(2, 'nilesh', 'nilesh@123');

CREATE TABLE products(id INT, name VARCHAR(30), description VARCHAR(80), price DECIMAL(8,2));

INSERT INTO products VALUES

(1, 'Laptop', 'Gaming Laptop', 120000.0),

(2, 'iPhone', 'Apple Mobile', 89000.0),

(3, 'Bravia', 'Sony TV', 76000.0);

SELECT \* FROM users;

SELECT \* FROM products;

```

On VM1 ( Flask Web Application )

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**## Install MySQL connector**

```sh

> pip install flask mysql-connector-python==8.4.0

### Change in the server.py accordingly