MySQL Basics Guide

1. What is MySQL?

- MySQL is an open-source relational database management system.

- Requires server installation and client connection.

2. Connecting to MySQL using Python:

```python
import mysql.connector

conn = mysql.connector.connect(
    host="localhost",
    user="your_username",
    password="your_password",
    database="your_db"
)
cursor = conn.cursor()
```

3. Creating a Table:

```python
cursor.execute("""
    CREATE TABLE IF NOT EXISTS users (
        id INT AUTO_INCREMENT PRIMARY KEY,
        name VARCHAR(100),
        phone VARCHAR(20)
    )
""")
conn.commit()
```

4. Inserting Data:

```python
cursor.execute("INSERT INTO users (name, phone) VALUES (%s, %s)", ("Alice", "0123456789"))

conn.commit()
```

5. Fetching Data:

```python
cursor.execute("SELECT * FROM users")

rows = cursor.fetchall()

for row in rows:

    print(row)
```

6. Updating Data:

```python
cursor.execute("UPDATE users SET phone=%s WHERE name=%s", ("01987654321", "Alice"))

conn.commit()
```

7. Deleting Data:

```python
cursor.execute("DELETE FROM users WHERE name=%s", ("Alice",))

conn.commit()
```

8. Closing Connection:

```python
conn.close()
```