Invoice Management System - Deliverables

1. Brief Documentation of Database Schema

The Invoice Management System uses an SQLite database with SQLAlchemy ORM. The database schema consists of the following table:

Invoice Table

Column Name	Data Type	Description
id	Integer (Primary Key)	Unique identifier for each invoice
customer_name	String	Name of the customer
amount	Float	Total invoice amount
status	String	Invoice status (Pending, Paid, Overdue, etc.)
created_at	DateTime	Timestamp when the invoice was created

2. Sample Report Outputs

Summary of Invoices in the Last Week

A summary report displays the total number of invoices, the sum of all invoice amounts, and the average invoice value over the last 7 days.

Sample JSON Output:


```
{
  "total_invoices": 10,
  "total_amount": 5000.00,
  "average_amount": 500.00
}
```


Detailed Report of Invoices in the Last Week

The detailed report lists all invoices from the last 7 days with their details.

Sample JSON Output:


```
[
  {
    "id": 1,
    "customer_name": "John Doe",
    "amount": 250.75,
    "status": "Paid",
```

```
    "created_at": "2025-03-01T10:15:00"
  },
  {
    "id": 2,
    "customer_name": "Alice Smith",
    "amount": 120.50,
    "status": "Pending",
    "created_at": "2025-03-02T12:30:00"
  }
]
```


3. Example of Chatbot Commands

The chatbot can handle various commands for invoice management, such as inserting, updating, fetching, and summarizing invoices.

Supported Commands

Command	Expected Response
Insert invoice for John Doe, amount 500, status Paid	Invoice added successfully!
Update invoice 5 to Paid	Invoice 5 updated successfully!
Show invoice 5	{ "invoice": { "id": 5, "customer_name": "John Doe", "amount": 500, "status": "Paid" }}
Give me a summary of all invoices in the last week	{ "total_invoices": 10, "total_amount": 5000, "average_amount": 500.00 }