**Assignment: Python Programming for DL**

Name: S. SUVAN SENTHIL

Register Number:192324175

Department: B-TECH OF ARTIFICIAL INTELLIGENCE AND DATA

SCIENCE

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**Problem 1:** **Inventory Management System**

**Scenario:**

An inventory management system helps track inventory levels, orders, sales, and deliveries. This scenario outlines the development and implementation of an inventory management system using Python .

**Tasks:**

1. Define Project Requirements, Objective: Outline the main functionalities and features of the system.
2. Design Database Schema
3. Objective: Create the database structure to store inventory, orders, and supplier information.
4. Set Up Development Environment
5. Objective: Prepare the development environment by installing necessary tools and libraries.

**Deliverables:**

* Data flow diagram illustrating the interaction between the application and the API.
* Pseudocode and implementation of the weather monitoring system.
* Documentation of the API integration and the methods used to fetch and display weather data.
* Explanation of any assumptions made and potential improvements.

# Solution:

# INVENTORY MANAGEMENT SYSTEM

# 1.Data Flow Diagram

**Ask the user to choose option**

**Creating a inventory system**

**A Ask the user to for amount in stock**

Aa **Ask user to continue order or exit**

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# 3.Display the Inventory details

Choose Any One of The Following :-

1)Admin

2)User

3)Exit

Enter Your Choice Here

# 4.UseInput

# 5.Documentation

#### **Inventory Management System Documentation**

#### **Table of Contents**

#### [Introduction](https://chatgpt.com/#introduction)

#### [Features](https://chatgpt.com/#features)

#### [Installation](https://chatgpt.com/#installation)

#### [Usage](https://chatgpt.com/#usage)

#### [Conclusion](https://chatgpt.com/#conclusion)

### Introduction

* The Inventory Management System is designed to help businesses manage their inventory effectively. It allows users to track inventory levels, manage stock, and generate reports.

#### **Features**

#### Add, update, and delete inventory items

#### Track inventory levels

#### Generate inventory reports

#### User authentication

#### Search functionality

### Installation

* **Clone the repository.**
* **Create a virtual environment and activate it.**
* **Install the required dependencies.**
* **Set up the database.**
* **Run the application**

**Usage**

* **Starting the Application:** After running **python app.py**, the application will start, and you can access it through your web browser at **http://localhost:5000**.
* **User Authentication:**
  + Register a new user or log in with existing credentials.
  + Only authenticated users can manage the inventory.
* **Managing Inventory:**
  + **Add Item:** Navigate to the "Add Item" page to add new inventory items.
  + **Update Item:** Edit item details from the inventory list.
  + **Delete Item:** Remove items from the inventory.
  + **View Inventory:** View all inventory items, including their details and current stock levels.
* **Generating Reports:**
  + Navigate to the "Reports" section to generate and view inventory reports.

**Conclusion**

* This Inventory Management System provides a simple yet effective way to manage and track inventory. It can be extended with additional features like advanced reporting, barcode scanning, and integration with other business systems.