**Online/Offline Inventory Management System Project in Python with any open source Database**

The inventory management ensures that the company always has the required materials and products in hand while keeping the cost as low as possible. Inventory Management refers to the process of supervising and controlling the stock items of a company. Typically, Inventory Management Systems are used by firms that either sell a product or manufacture a product for the purpose of accounting all the tangible goods that allow for a sale of a finished product, or parts for making a product. This inventory management system can be used to store the details of the inventory, update the inventory based on the sale details, generate receipts for sales, generate sales and inventory reports periodically. This inventory management software has one module, Admin. Admin has the authority to add, update and delete an inventory. This inventory management software also has its own intelligently managed support system. This intelligent support system allows admin to view and manage various inventories.

* **Modules:**

The system comprises of 1 major modules with their sub-modules as follows:

1. **User:**
   * **Login:** User can login his account using id and password.
   * **Add cashier:** User can add cashier by adding cashier details.
   * **Add Product:** User can add product.
   * **View cashier details:** User can view cashier details.
   * **View Transaction:** User can also view the transaction done.
   * **Inventory:** User can add Inventory.
   * **Update stock:** User can add, delete the stock.
   * **Sales as per product:** User can check sales done as per the product.
   * **All Reports:** - weekly, Monthly & Yearly with customize report to show the Inventory of product.

##### **Project Lifecycle:**

##### **Description**

The waterfall Model is a linear sequential flow. In which progress is seen as flowing steadily downwards (like a waterfall) through the phases of software implementation. This means that any phase in the development process begins only if the previous phase is complete. The waterfall approach does not define the process to go back to the previous phase to handle changes in requirement. The waterfall approach is the earliest approach that was used for software development.

* **Hardware Requirement:**
* Processor –Core i3
* Hard Disk – 160 GB
* Memory – 1GB RAM
* Monitor
* **Software Requirement:**
* Windows 10 or higher
* Python
* Django framework
* MySQL database/any open source of Database like mongodb, MariaDB,Postgre,SQLSQLite

**Advantages**

* Achieve efficiency and productivity in operations.
* Minimise inventory costs and maximize sales & profits.
* Integrate entire business.
* Automation of manual tasks.

**Disadvantages**

* Requires an active internet connection.
* **Advantages**
* Achieve efficiency and productivity in operations.
* Minimize inventory costs and maximize sales &amp; profits.
* Integrate entire business.
* Automation of manual tasks.
* **Limitation**
* Data need to be entered properly otherwise, outcome may won’t be accurate.
* **Application**
* This system can be used by the multiple peoples to get the counselling sessions online.
* **Reference**
* <https://shsu-ir.tdl.org/shsu-ir/bitstream/handle/20.500.11875/1164/0781.pdf?sequence=1>
* <https://ieeexplore.ieee.org/document/6208293/>
* https://ieeexplore.ieee.org/document/4679917/