

# ***Inventory Analysis Software***

## **IAS\_01**

**IAS shall support CRUD (Create/Read/Update/Delete) operations on Inventory**

**Ans :-** Each Product shall contain following information:

Product Id, Product Name, Product Description, Product Quantity

The program shall support following menu:

1. Add Product
2. List All Product Details
3. Update Product Details
4. Delete Product
5. Exit

## **IAS\_02 :**

**IAS shall support CR (Create/Read) operations on the read-only sales logs .**

**Ans :-** 1. Inventory Analysis Software is an application from which we can see the required information of a product like product ID, product name, product description, product quantity etc.

2. Here we also maintain the sale logs like the transaction ID, transaction date and time and list of product and quantity in pairs.

3. Here we need to use CR (Create/Read) operations to maintain these read-only sales logs.

**IAS\_03: IAS shall use text-file CSV(Comma Separated Values) for Inventory.CSV and Sales.CSV**

**Ans:-1.** Comma separated value(CSV): The CSV file is a delimited text file that uses a comma to separate values. A CSV file stores tabular data in plain text. Each line of the file is a data record.

**2.** It actually stores the tabular data in plain text, in which each line has the same number of fields. Similarly in this function also, the user given tabular data is represented in plain text and the fields/columns are separated by a comma and rows terminated by new lines.

Ex:

Product Name	Product Id	Product Quantity
Raw Rice	11011	10 kg
Sugar	11012	12 kg
Flour	11013	15 kg

The above table data may be represented in CSV format as follows:

Product Name, Product Id, Product Quantity

Raw Rice, 11011, 10 kg

Sugar, 11012, 12 kg

Flour, 11013, 15 kg

- 3) Here, if the user needs to transfer information from a database program to a spreadsheet that uses a completely different format. Most of the database programs can export data as CSV and then exported CSV files can be imported by spreadsheet program.

#### IAS - 04

**The files shall be loaded in memory, and all CRUD operations shall happen in memory. On command by user, the data shall be committed to files.**

**Ans:- 1)** The Inventory.csv and Users.csv files should be loaded into the memory and all the Inventory and sale records should be stored permanently there.

- 2) The Inventory.csv and Sale.csv files look like –

##### **Inventory.csv**

Product ID, Product Name, Product Description, Product Quantity

11011, Raw Rice, In Stock, 10 kg

##### **Sale.csv**

Transaction ID, Date and Time, <Product ID, Quantity>

101, 13-10-22 16:50, <11011, 2 kg>

- 2) Once the file is loaded into the memory by using file handling, we can perform some CRUD operations like Create, Read, Update the operations in that file and then the user commits the data once the operations are done with that file.
- 3) Ex.- fopen(), fclose()

#### **IAS\_05:**

**In case one Inventory/Sale record is in format error, IAS shall still load and process the other records**

**Ans:-** While storing Inventory/Sale record if something goes wrong or record is in format error, IAS will be still load and process for the other records .

#### **IAS\_06**

**Inventory record shall comprise of at least following fields: product\_id, product\_name, product\_description, product\_quantity**

**Ans:-** An inventory record shall comprise of at least the following fields: product\_id, product\_name, product\_description, product\_quantity This ensures that every product has a unique identifier, a name, a description, and a quantity associated with it.

#### **IAS\_07**

**Sale record shall comprise of at least following fields: transaction\_id, date\_and\_time, list of <product\_id, quantity> pairs.**

**Ans:-** Sale record shall comprise of at least following fields : transaction\_id, date\_and\_time, list of <product\_id, quantity> pairs.

transaction\_id field is used to store the unique identifier for a transaction.

date\_and\_time: This field is used to store the date and time when transaction took place.

<product\_id, quantity> pairs: <product\_id, quantity> pair field is used to store product id and quantity of the product sold in pairs.