Online

Inventory

Management

Systems

**INTRODUCTION**

* 1. Project Summary
  2. Purpose
  3. Scope
  4. Hardware Requirement
  5. User Characteristics
  6. **Project Summary**

Inventory generally refers to the materials in stock. It is also called the idle resource of an

enterprise. Inventories represent those items which are either stocked for sale or they are in the gradual process of manufacturing or they are in the form of materials, which are yet to be utilised.

The interval between receiving the purchased parts and transforming them into final products varies from industries to industries depending upon the cycle time of manufacture. It is, therefore, it is necessary to hold inventories of various kinds to act as a buffer between supply and demand for efficient operation of the system.

Thus, an effective control on inventory is a must for smooth and efficient running of the production cycle with least interruptions.

**Reasons for Keeping Inventories**

1. **To stabilise production:** The demand for an item fluctuates because of the number of factors, *e.g.,* seasonality, production schedule etc. The inventories (raw materials and components) should be made available to the production as per the demand failing which results in stock out and the production stoppage takes place for want of materials. Hence, the inventory is kept to take care of this fluctuation so that the production is smooth.

2. **To take advantage of price discounts:** Usually the manufacturers offer discount for bulk buying and to gain this price advantage the materials are bought in bulk even though it is not required immediately. Thus, inventory is maintained to gain economy in purchasing.

3. **To meet the demand during the replenishment period:** The lead time for procurement of materials depends upon many factors like location of the source, demand supply condition, etc. So inventory is maintained to meet the demand during the procurement (replenishment) period.

4. **To prevent loss of orders (sales):** In this competitive scenario, one has to meet the delivery schedules at 100 per cent service level, means they cannot afford to miss the delivery schedule which may result in loss of sales. To avoid the organizations have to maintain inventory.

5. **To keep pace with changing market conditions:** The organizations have to anticipate the changing market sentiments and they have to stock materials in anticipation of non-availability of materials or sudden increase in prices. Sometimes the organizations have to stock materials due to other reasons like suppliers minimum quantity condition, seasonal availability of materials or sudden increase in prices.

The main objective of Online Inventory Management Systems(OEMS) is to provide all features

that an Inventory System must have, with the "interfaces that doesn't Scare it's Users!".

The system entitled “Online Inventory Management System” is application software, which aims at providing services to the vendors and providing them with an option of selecting the sufficient stock

of items.

* 1. **Purpose**

Inventory Management System Provides information to efficiently manage the flow of materials, effectively utilize people and coordinate internal activities and communicate with customers. This Web Application provides facility to manage inventories at online for stock market.

Inventory Management does not make decisions or manage operations they provide informations to managers who make more accurate and timely decisions to manage their operations.

Online Inventory is maintained to take care of fluctuations of demand and lead time. In some cases it is maintained to take care of increasing price tendency of commodities or rebate in bulk buying.

Inventory management must be designed to meet dictates of marketplace and supports the company’s strategic plan.

The many changes in the market demand, new opportunities due to worldwide marketing, global sourcing of materials and new manufacturing technology means many companies need to change their inventory management approach and change the process for inventory control.

Purpose of Online Inventory Management System(OEMS) application must have following objectives,

* To ensure adequate supply of products to customer and avoid shortages as far as possible.
* To make sure that the financial investment in inventories is minimum (*i.e.,* to see that the

working capital is blocked to the minimum possible extent).

* Efficient purchasing, storing, consumption and accounting for materials is an important

objective.

* To maintain timely record of inventories of all the items and to maintain the stock within the

desired limits

* To ensure timely action for replenishment.
* To provide a reserve stock for variations in lead times of delivery of materials.
* To provide a scientific base for both short-term and long-term planning of materials.

**1.3 Scope**

The Inventory Management discipline encompasses all system and data network elements from the mainframe through the server level to the PC or end component throughout the enterprise.

All mainframe and data network based hardware and software assets must be identified and entered into the Inventory System. Any changes to these environments must be reflected in the Inventory System.

Financial and technical product information must be available through the Inventory System, as needed to support the functional responsibilities of personnel within the finance and contracts management departments.

Asset criticality must be included with asset descriptive and financial information, so that the Recovery Management department is supplied with the information it requires. Recovery actions must be implemented to safeguard critical assets.

The Standards and Procedures Manual section relating to Inventory Management must be created and published. This section must describe the process by which assets are identified, entered into the Inventory Management System, tracked, and finally deleted. All information needed by personnel to perform Inventory Management functions must be clearly described within this S&P Manual section.

Finally, personnel responsible for implementing, supporting, and maintaining assets must have access to the Inventory Management System to identify asset information needed by them to perform their functional responsibilities. This process includes logging the availability or assets, their support history, and any maintenance activity performed on the asset.

Data used to support configuration diagrams of the hardware and software components contained within specific locations, or the entire data processing environment.

**1.4 HARDWARE& SOFTWARE REQUIREMENTS**

**Server Configuration**

* Intel Dual Core 2.5GHz CPU onwards
* 2 GB RAM
* Minimum 3GB free space of HDD

**Client Configuration**

* Pentium iv 500 MHz CPU onward
* 1GB RAM

**Software Requirement**

* XAMPP
* Eclipse
* Dreamweaver

**1.5 User Characteristics**

In this system, there are 5 users :

1. Administrator

2.Higher Authority

3.Account Department

4.Contract Department

5.Lower Level Employee

**Task Of Administrator :**

* Login
* Manage views for user
* Add or delete user
* View user data
* Add/Delete items list
* Add/Delete warehouses
* Add/Delete vendor(information about vendor)

**Task Of Higher Authority :**

* Login
* Resetting Password
* Add/Delete tasks
* Approve/Disapprove an order/permission

**Task Of Account Department :**

* Login
* Resetting Password
* View and Manage Financial status

**Task Of Contract Department :**

* Login
* Resetting Password
* Create or manage contracts

**Task Of Lower Level Employee :**

* Login
* Resetting Password
* Create order
* Sell items
* Buy Items
* Transfer goods from warehouse to warehouse
* Request Permission

**Data Flow Diagram :**

Higher Authoritiess

*Request request*

Administrator

*Response response*

*Request*

*response Request response*

Account Department

Contract Department

*Request*

*Response*

Lower Level Employee

**Fig: Level 0 DFD**

Administrator

Id& password request login\_admin

Admin\_Homepage response

re

user**\_id**  request user\_area

acknnowledgement response

user\_iduser\_id user

acknowledgement user\_profile

item\_id item\_id items

acknowledgement item\_detail

warehouse\_id warehouse\_id warehouses

acknowledgement warehouse\_details

vendor\_id vendor\_id vendors

acknowledgement vendor\_detail

**Fig : Level 1 DFD ( Administrator )**

Higher Authority

Id & password request login\_auth

HA\_homepageresponse

task\_idtask\_ id task

datatask\_details

yes/noorder\_idorder

resultorder\_details

yes/noorder\_idpermission

resultresponse

**Fig : Level 1 DFD ( Higher Authority )**

Account Dept.

Id & password request login\_acc

Accdept\_homepageresponse

order\_id/record\_idorder\_ id order

create\_response order\_details

record\_id records

record\_details

**Fig : Level 1 DFD (Account Department)**

Contract Dept.

Id & password request login\_contr

Contr\_dept\_homepageresponse

contract\_id/record\_idcontract\_ id contract

create\_response/acknowledgement contract\_details

record\_id records

record\_details

**Fig : Level 1 DFD (Contract Department)**

Lower Level Employee

Id & password request login\_auth

HA\_homepageresponse

task\_idtask\_ id order

datatask\_details

yes/noorder\_iditem\_store

resultorder\_details

yes/noorder\_idwarehouse

resultresponse

permission\_detailsPermission\_id Permisson

waiting for approvaldone

**Fig : Level 1 DFD ( Lower Level Employee)**

Administrator

Id& password request login\_admin

Admin\_Homepage response

re

user\_group use\_group user\_view

response view

user\_group user\_group user\_permission

responseview

user\_id user\_id response response

user\_data

user\_iduser\_id

response response

item\_id item\_id

response response user\_data

item\_id item\_id

response response

warehouse\_id warehouse\_id

response response warehouse

warehouse\_id warehouse\_id

response response

vendor\_id vendor\_id

response responsevendor

vendor\_idvendor\_id

response

**Fig : Level 2 DFD (Administrator)**

Higher Authority

Id & password request login\_auth

HA\_homepageresponse

task\_idtask\_ id task

datatask\_details

yes/noorder\_idorder

resultorder\_details

yes/noorder\_idpermission

resultresponse

order\_id order\_id

order

result response

perm\_id perm\_id Permission

result response

**Fig : Level 2 DFD (Higher Authority)**

Account Dept.

Id & password request login\_acc

Accdept\_homepageresponse

order\_id/record\_idrecor\_ id records

create\_response record\_details

budget\_group order\_id order

response order\_details

details record\_id record

response record\_details

order

**Fig : Level 2 DFD (Account Department)**

Contract Dept.

Id & password request login\_contr

Contr\_dept\_homepageresponse

detailscontract\_ id contract

response contract\_details

contract\_id record\_id records

response record\_details

**Fig : Level 2 DFD (Contract Department)**

Id & pass request Login

Lower Level Employee

emp\_homepage response

order\_id order\_id

response order\_details Order

order\_id order\_id

response order\_details

item\_id item\_id

response item\_details

item\_stock

item\_id item\_id

response item\_details

perm\_id perm\_id Permission

response details

item\_id item\_id

response details item\_stock

**Fig : Level 2 DFD (Lower Level Employee)**

admin **Fig : Use case Diagram (Administrator)**

Higher Auth Contract Dept

Acc Dept.

Lower Level Employee Employee

**Fig : Use Case Diagram (All Users)**

START

STOP

PROVIDE ADMIN HOME PAGE

PROVIDE LOWER LEVEL EMPLOYEE HOME PAGE

PROVIDE CONTRACT DEPT HOME PAGE

PROVIDE ACCOUNT DEPT. HOME PAGE

PROVIDE HIGHER AUTHORITY HOME PAGE

VERIFY USER\_NAME AND PASSWORD

ENTRE USER\_NAME AND PASSWORD

NOT   
 VERIFIED

VERIFIED

GET USER\_TYPE AND SWITCH

PROVIDE USER\_TYPE UPDATE PENDING PAGE

NULL

0 1 2 3 4