A

PROJECT REPORT

ON

INVENTORY MANAGEMENT

SUBJECT : DATABASE MANAGEMENT SYSTEM

FACULTY OF TECHNOLOGY

DHARAMSINH DESAI UNIVERSITY

NADIAD-387001

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DEPARTMENT OF INFORMATION TECHNOLOGY

CERTIFICATE

This is to certify that Miss. Aayushi Mali & Binal Kharecha student of B.Tech. semester V (Information Technology) have completed their semester project work titled "INVENTORY MANAGEMENT SYSTEM" satisfactorily in partial fulfillment of requirement of during academic year

2015-2016.

LAB INCHARGE **HEAD OF THE DEPT**

PROF R.M.RAVAL PROF R. S.CHHAJED

ACKNOWLEDGEMENT

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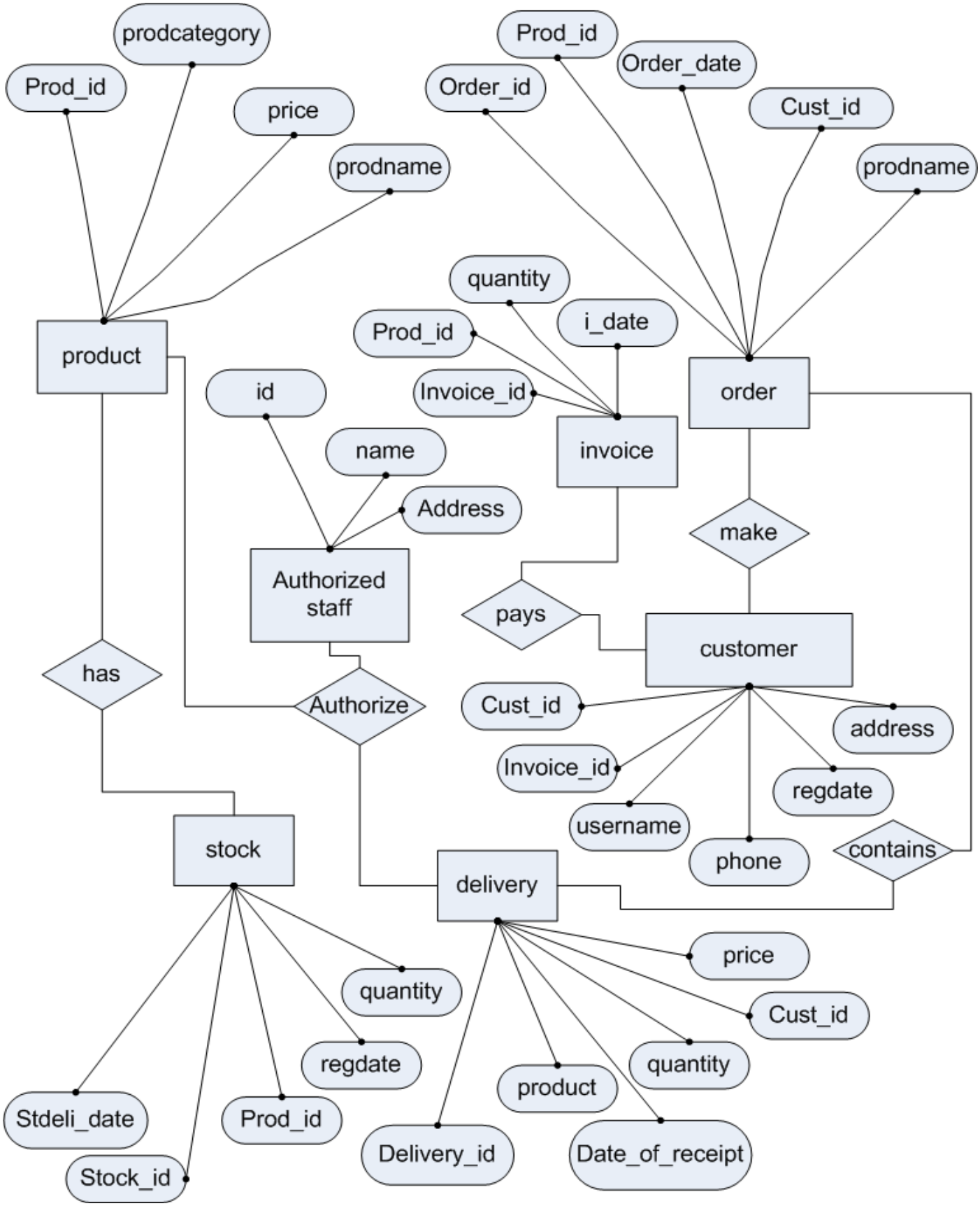
AAYUSHI MALI & BINAL KHARECHA

INTRODUCTION

Inventory management helps you record and track materials on the basis of both quantity and value. Warehouse inventory management functions cover internal warehouse movement sand storage. Using this software we can reduce costs for warehousing, transportation, order fulfillment, and material handling – while improving customer service. You can significantly improve inventory turns, optimize the flow of goods, and shorten routes within your warehouse or distribution center. Additional benefits of inventory management include improved cash flow, visibility, and decision making. This software is user friendly and hence easy to use. Employees can plan, enter, and document warehouse and internal stock movements by managing goods receipts, goods issues, storage, picking and packing, physical stock transfers, and transfer postings.


prodcategory
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stock
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product
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Prod_id
Delivery_id
Date_of_receipt
Stock_id

SCHEMA DIAGRAM

TABLE INFORMATION

TABLE	FIELD	DESCRIPTION	TYPE	CONSTRAINTS
CUSTOMER	Cust_id	Identification of the customer	Varchar(15)	Primary key
	Invoice_id	Identification of the invoice	Varchar2(15)	Foreign key
	Username	Name of the customer	Varchar(14)	Not null
	Phone	Phone of customer	Varchar(10)	Not null
	Regdate	Date of registration	Date	Null
	Adress	Adress of customer	Varchar(15)	Null
PRODUCT	Prod_id	Identification of product	Varchar(10)	Primary Key
	Prodcategory	Category of product	Varchar(15)	Not null
	Prodname	Name of product	Varchar(15)	Not null
	Price	Price of product	Varchar(15)	Not null
INVOICE	Invoice_id	Identification of invoice	Varchar(15)	Primary Key
	Prod_id	Identification of the product	Varchar(15)	Foreign Key
	Quantity	Quantity of product	Varchar(15)	Not null
	I_date	Time of writing an invoice	Date	Not null
	Pricetotal	Amount of product	Varchar(15)	Not null
ORDER	Order_id	Identification of order	Varchar(15)	Primary Key
	Prod_id	Identification of the product	Varchar(15)	Foreign Key
	Order_date	Date of order	Date	Not null
	Cust_id	Id of customer	Varchar(15)	Not null
	Prodname	Name of product	Varchar(15)	Not null
STOCK	Stock_id	Identification of stock	Varchar(15)	Primary Key
	Prod_id	Identification of product	Varchar(20)	Foreign Key
	Regdate	Date of registration	Date	Not null

	Quantity Stdeli_date	Quantity Date of stock delivery	Number(5) date	Null Null
DELIVERY	Delivery_id	Identification of delivery	Varchar(15)	Not null
	Product	Product	Varchar(15)	Null
	Quantity	Quantity of product	Number(15)	Null
	Dateofreceipt	Date of receivable	Date	Null
AUTORIZED STAFF	Id	Identification of product	Varchar(15)	Null
	Name	Name of authorized staff	Varchar(15)	Null
	Address	Address of person	Varchar(15)	Null
MAKE	Cust_id	Identification of customer	Varchar2(15)	Not null
	Order_id	Identification of order	Varchar2(15)	Not null
	Product	product	Varchar(15)	Null
PAY	Cust_id	Identification of customer	Varchar(15)	Not null
	Invoice_id	Identification of invoice	Varchar(15)	Not null
	Prod_id	product	Varchar2(15)	Not null
HAS	Stock_id	Stock	Varchar2(15)	Not null
	Prod_id	Product	Varchar2(15)	Not null
	Prodname	Name of product	Varchar(15)	Not null
CONTAINS	Order_id	Identification of order	Varchar2(15)	Not null
	Delivery_id	Delivery	Varchar2(15)	Not null
	Date	Date	Date	Not null
TABLE	FIELD	DESCRIPTION	TYPE	CONSTRAINTS
CUSTOMER	Cust_id	Identification of the customer	Varchar(15)	Primary key

IMPLEMENTATION

SQL QUERIES:

```
CREATE TABLE CUSTOMER
( "CUST_ID"      VARCHAR2(15),
  "INVOICE_ID"   VARCHAR2(15),
  "USERNAME"     VARCHAR(12),
  "PHONE"        VARCHAR(10),
  "REGDATE"      DATE,
  "ADDRESS"      VARCHAR2(20)
)
CREATE TABLE PRODUCT
("PROD_ID"       VARCHAR2(10),
  "PRODCATEGORY"  VARCHAR(10),
  "PRODNAME"     VARCHAR(15),
  "PRICE"        VARCHAR(15)
)
 CREATE  TABLE INVOICE
("INVOICE_ID"   VARCHAR2(15),
  "PROD_ID"     VARCHAR2(10),
  "QUANTITY"     VARCHAR(15),
  "I_DATE"        DATE,
  "PRICETOTAL"   VARCHAR(15))
CREATE TABLE ORDER
(   "ORDER_ID"   VARCHAR2(15),
  "PROD_ID"    VARCHAR2(10),
```

```
  "ORDER_DATE" DATE,
  "CUST_ID"    VARCHAR2(15),
  "PRODNAME"     VARCHAR(15),
  "DELIVERYDATE" DATE
)
CREATE TABLE STOCK
( "STOCK_ID"  VARCHAR(15),
  "PROD_ID"   VARCHAR2(10),
  "REGDATE"   DATE,
  "QUANTITY"  VARCHAR(15)
 “STDELI_DATE” DATE
)
CREATE TABLE DELIVERY
(  "DELIVERY_ID"   VARCHAR2(15),
  "PRODUCT"      VARCHAR(15),
  "QUANTITY"     VARCHAR(15),
  "CUST_ID"      VARCHAR2(15,
  "DATEOFRECEIPT"  DATE
)

CREATE TABLE AUTHORIZED STAFF
( "ID"   VARCHAR2(15),
  "NAME" VARCHAR(15),
  "ADDRESS"  VARCHAR2(40)
)
```

```
INSERT INTO CUSTOMER

VALUES('A101','I101','VIJAY SALES',9427685237,'01-SEP-2014','5,SATYAM MALL,OPP AYURVEDIC CLG,NADIAD')

INSERT INTO CUSTOMER

VALUES('A102','I102','JEEL STORES',9898675236,'10-SEP-2014','8,SHOPPERS ARCADE,VASTRAPUR ,AHMEDABAD')

INSERT INTO CUSTOMER

VALUES('A103','I103','RELFRESH',9672833478,'20-OCT-2014','ABHINAV MALL,MANSI CIRCLE,AHM')

INSERT INTO CUSTOMER

VALUES('A104','I104','KABHIB',8401938786,'07-OCT-2014','H203,DUNES PLAZA,DAMAN')

INSERT INTO CUSTOMER

VALUES('A105','I105','EKTAGROCERY',8744910515,'29-SEP-2014','B101,KARAN COMPLEX,DAMAN')

INSERT INTO PRODUCT

VALUES('P201','BAKED','BREAD',20)

INSERT INTO PRODUCT

VALUES('P202','NOODLES','VEGATTA',25)

INSERT INTO PRODUCT

VALUES('P203','SOUP','CHINGS ',30)

INSERT INTO PRODUCT

VALUES('P204','READY2COOK','MTR IDLI MIX ',50)

INSERT INTO PRODUCT

VALUES('P205','WAFFERS','BALAJI MASALA WAFFERS ',10)

INSERT INTO INVOICE

VALUES('I101','P201',50,'05-SEP-2014',20,1000)

INSERT INTO INVOICE

VALUES('I102','P202',70,'12-SEP-2014',25,1750)
```

```
INSERT INTO INVOICE

VALUES('I103','P203',35,'21-OCT-2014',30,1050)

INSERT INTO INVOICE

VALUES('I104','P204',20,'09-OCT-2014',50,1000)

INSERT INTO ORDERS1

VALUES('O301','P201','01-SEP-2014','A101','BREAD')

INSERT INTO ORDERS1

VALUES('O302','P202','10-SEP-2014','A102','VEGATTA')

INSERT INTO ORDERS1

VALUES('O303','P203','20-OCT-2014','A103','CHINGS MANCHAUSOUP')

INSERT INTO ORDERS1

VALUES('O304','P201','07-OCT-2014','A104','BREAD')

INSERT INTO STOCK1

VALUES('S501','P201','10-AUG-2014',100,'15-AUG-2014')

INSERT INTO STOCK1

VALUES('S502','P202','29-JUL-2013',200,'30-JUL-2013')

INSERT INTO STOCK1

VALUES('S503','P203','25-MAY-2014',75,'27-MAY-2014')

INSERT INTO STOCK1

VALUES('S504','P204','28-JUN-2014',55,'30-JUN-2014')

INSERT INTO STOCK1

VALUES('S507','P206','03-FEB-2014',300,'04-FEB-2014')

INSERT INTO DELIVERY

VALUES('D601','P201',50,'A101','05-FEB-2014')

INSERT INTO DELIVERY
```

VALUES('D602','P202',70,'A102','12-SEP-2014')

INSERT INTO DELIVERY

VALUES('D603','P203',35,'A103','21-SEP-2014')

INSERT INTO AUTHORIZEDSTAFF

VALUES('B101','KARTIK','21,NALANDA SOCIETY ,DELHI')

INSERT INTO AUTHORIZEDSTAFF

VALUES('B102','JALPESH','5 SATYAM SOCIETY,NADIAD')

INSERT INTO AUTHORIZEDSTAFF

VALUES('B103','NARESH','26 AVENUE SOCIETY,NADIAD')

DATA CONSTRAINT:

SELECT * FROM CUSTOMER WHERE PHONE IS NULL

Results Explain Describe Saved SQL History

CUST_ID	INVOICE_ID	USERNAME	PHONE	REGDATE	ADDRESS
A106	I106	JD SALES	-	08-DEC-14	3 SNEHADRI COMPLEX,AHM

1 rows returned in 0.02 seconds CSV Export

ORDER BY:SELECT * FROM ORDERS1 ORDER BY ORDER_DATE

Results Explain Describe Saved SQL History

ORDER_ID	PROD_ID	ORDER_DATE	CUSTOMERNAME	PRODNAME
O301	P201	01-SEP-14	A101	BREAD
O302	P202	10-SEP-14	A102	VEGATTA
O305	P206	29-SEP-14	A105	HIDENSEEK,PARLEG,MONACO
O304	P201	07-OCT-14	A104	BREAD
O303	P203	20-OCT-14	A103	CHINGS MANCHAUSOUP

5 rows returned in 0.02 seconds CSV Export

GROUP BY: SELECT PROD_ID,SUM(PRICE) FROM PRODUCT GROUP BY PROD_ID

Results Explain Describe Saved SQL History

PROD_ID	SUM(PRICE)
P201	20
P202	25
P203	30
P204	50
P205	10
P206	15

6 rows returned in 0.05 seconds CSV Export

JOIN:

SELECT O.ORDER_ID,O.PROD_ID,O.ORDER_DATE FROM ORDERS1 O INNER JOIN PRODUCT P ON O.PROD_ID=P.PROD_ID

Results Explain Describe Saved SQL History

ORDER_ID	PROD_ID	ORDER_DATE
O301	P201	01-SEP-14
O302	P202	10-SEP-14
O303	P203	20-OCT-14
O304	P201	07-OCT-14
O305	P206	29-SEP-14

5 rows returned in 0.00 seconds CSV Export

FUNCTION(AGGREGATE,MATH,STRING):SELECT MIN(QUANTITY),MAX(QUANTITY) FROM STOCK1

Results Explain Describe Saved SQL History

MIN(QUANTITY)	MAX(QUANTITY)
0	500

1 rows returned in 0.00 seconds CSV Export

SUB-QUERIES: SELECT ORDER_DATE FROM ORDERS1 WHERE ORDER_ID=(SELECT MAX(ORDER_ID) FROM ORDERS1)

Results Explain Describe Saved SQL History

ORDER_DATE
29-SEP-14

1 rows returned in 0.02 seconds CSV Export

VIEW: CREATE VIEW PRODUCTS AS SELECT PRODNAME,PRICE FROM PRODUCT

SELECT * FROM PRODUCTS

Results Explain Describe Saved SQL History

PRODNAME	PRICE
BREAD	20
VEGATTA	25
CHINGS MANCHAUSOUP	30
MTR IDLI MIX	50
BALAJI MASALA WAFFERS	10
HIDENSEEK,PARLEG,MONACO	15

6 rows returned in 0.00 seconds CSV Export

TRIGGERS AND CURSORS:

```
CREATE TRIGGER T3

AFTER UPDATE OF QUANTITY ON STOCK1

FOR EACH ROW

BEGIN

IF(:NEW.QUANTITY<5)THEN

DBMS_OUTPUT.PUT _LINE('STOCK1 IS LESS THAN 5');

END IF;

END;
```

```
UPDATE  STOCK1

SET QUANTITY=4

 WHERE STOCK_ID='S507'
```


```
STOCK1 IS LESS THAN 5
```

```
CREATE OR REPLACE TRIGGER TRI1

AFTER INSERT ON DELIVERY

DECLARE CURSOR CURS1 IS SELECT QUANTITY,PRODUCT FROM DELIVERY WHERE

DATEOFRECEIPT=SYSDATE;

P_ID VARCHAR2(15);

QT NUMBER(15);

BEGIN

OPEN CURS1;

FETCH CURS1 INTO QT,P_ID;

UPDATE STOCK1 SET QUANTITY=QUANTITY-QT WHERE PROD_ID=P_ID;

CLOSE CURS1;

END;

INSERT INTO DELIVERY

VALUES('D611','P201',10,'A101',SYSDATE,20)
```

Results Explain Describe Saved SQL History

STOCK_ID	PROD_ID	REGDATE	QUANTITY	STDELI_DATE
S501	P201	10-AUG-14	90	15-AUG-14
S502	P202	29-JUL-13	200	30-JUL-13
S503	P203	25-MAY-14	75	27-MAY-14
S504	P204	28-JUN-14	55	30-JUN-14
S507	P206	03-FEB-14	300	04-FEB-14

5 rows returned in 0.00 seconds CSV Export

```
CREATE OR REPLACE TRIGGER TRR5

AFTER INSERT ON DELIVERY

DECLARE CURSOR CURS2 IS SELECT

DELIVERY_ID,QUANTITY,PRODUCT,PRICE FROM

DELIVERY

WHERE DATEOFRECEIPT=SYSDATE;

PRO VARCHAR2(10);

QT NUMBER(5);

DELI_ID VARCHAR2(5);

PR NUMBER(10);

TE NUMBER(10);

BEGIN

OPEN CURS2;

FETCH CURS2 INTO DELI_ID,QT,PRO,PR;

TE:=PR*QT;

INSERT INTO DELIVERY

(DELIVERY_ID,PRODUCT,QUANTITY,PRICE)

VALUES(DELI_ID,PRO,QT,TE);
```

```
CLOSE CURS2;

END;

INSERT INTO DELIVERY

VALUES('D609','P203',50,'A101',SYSDATE,30)
```

Results | Explain | Describe | Saved SQL | History

PROD_ID	QUANTITY	I_DATE	PRICETOTAL
P202	50	-	1250
P202	50	-	1250
-	-	-	-
P203	50	-	1500
P201	50	-	1500

5 rows returned in 0.00 seconds CSV Export

FUTURE ENHANCEMENT

The scope of an inventory system defines which needs it addresses, including valuing the inventory, measuring the change in inventory and planning for future inventory levels. The value of the inventory at the end of each period provides a basis for financial reporting on the balance sheet. Measuring the change in inventory allows the company to determine the cost of inventory sold during the period. Together, inventory values and level changes allow the company to plan for future inventory needs.

BIBLIOGRAPHY

Reference books:-

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    - By Silberschatz, Korth and Sudarshan
- PL/SQL Programming Language in Oracle
    - By Ivan Bayross