

Ex.No:13	Case Study (Inventory Management for a EMart Grocery Shop)
Date:	

Aim:

Write the coding for Inventory Management System.

Description:

Inventory control system helps in monitoring the sales and various stocks available

DATABASE:

STOCK TABLE

CREATE TABLE stock

(

prodid INT PRIMARY KEY, prodname VARCHAR2(50), quantity INT, unitprice INT,
reorderlevel INT

);

SALES TABLE

CREATE TABLE sales

(

prodid INT REFERENCES stock(prodid), salesqty INT, amount INT, salesdate DATE

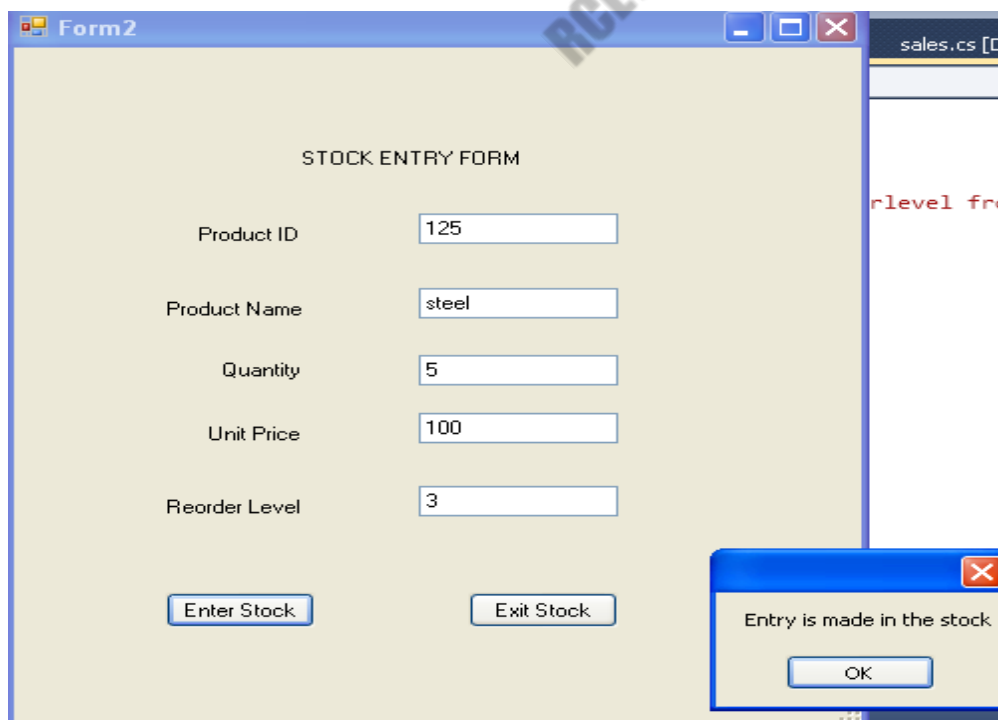
);

FORMS:

Inventory control system form:



A screenshot of a Windows application window titled "Form1". The window has a blue title bar with standard minimize, maximize, and close buttons. The main area has a light beige background and is titled "INVENTORY CONTROL SYSTEM" in bold, black, uppercase letters. Below the title, there are three buttons arranged vertically: "Stock Entry", "Sell Goods", and "Exit".



A screenshot of a Windows application window titled "Form2". The window has a blue title bar with standard minimize, maximize, and close buttons. The main area has a light beige background and is titled "STOCK ENTRY FORM" in bold, black, uppercase letters. Below the title, there are five input fields with labels to their left: "Product ID" (containing "125"), "Product Name" (containing "steel"), "Quantity" (containing "5"), "Unit Price" (containing "100"), and "Reorder Level" (containing "3"). At the bottom of the form, there are two buttons: "Enter Stock" and "Exit Stock". A small dialog box is open in the bottom right corner, titled with a close button, containing the text "Entry is made in the stock" and an "OK" button.

The image shows a Windows application window titled "sales". Inside the window is a "SALES ENTRY FORM". The form contains three input fields: "Product ID" with the value "125", "Quantity" with the value "4", and "Amount" with the value "400". Below these fields are two buttons: "Sell" and "Exit". In the top right corner of the form area, there is a date and time stamp: "10/9/2014 5:16:59". An error dialog box is open in the foreground, displaying the message "Stock level is low. Please order the item steel" and an "OK" button.

CODING FOR SALES FORM:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using Oracle.DataAccess.Client;
namespace inventory1
{
    public partial class sales : Form
    {
        public sales()
        {
```

```

        InitializeComponent();
    }
    OracleConnection conn;
    private void sales_Load(object sender, EventArgs e)
    {
        string oradb = "Data Source=172.18.1.6;User Id=cselab;Password=cselab;";
        conn = new OracleConnection(oradb);
        conn.Open();

        string sel1 = "select prodid from cselab.stock";
        OracleCommand cmd = new OracleCommand(sel1, conn);
        OracleDataReader dr = cmd.ExecuteReader();
        while (dr.Read())
        {
            cmbmPid.Items.Add(dr["prodid"].ToString());
        }
        DateTime dt = DateTime.Now;
        txtSalesdate.Text = dt.ToString();
    }
    private void btnSell_Click(object sender, EventArgs e)
    {
        Boolean result=validate();
        if (result==true)
        {
            MessageBox.Show("Insufficient Stock");
            return;
        }
        DateTime dt = DateTime.Now;
        String ins="Insert into cselab.sales(prodid,salesqty,amount,salesdate) values
(:prodid,:salesqty,:amount,:salesdate)";
        OracleCommand cmd = new OracleCommand(ins, conn);
        cmd.Parameters.Add("prodid", cmbmPid.SelectedItem);
        cmd.Parameters.Add("salesqty", txtSalesqty.Text);
        cmd.Parameters.Add("amount", txtAmt.Text);
        cmd.Parameters.Add("salesdate", dt);
        cmd.ExecuteNonQuery();
        MessageBox.Show("Product sold successfully");
        updatestock();
        clear();
    }

```

```

    }
    public Boolean validate()
    {
        String sel1 = "select quantity,reorderlevel,prodname from cselab.stock where
prodid=:prodid";
        OracleCommand cmd = new OracleCommand(sel1, conn);
        cmd.Parameters.Add("prodid", cmbmPid.SelectedItem);
        OracleDataReader dr = cmd.ExecuteReader();
        int relevel = 0;
        int qty = 0;
        if (dr.Read())
        {
            qty = int.Parse(dr["quantity"].ToString());
            relevel = int.Parse(dr["reorderlevel"].ToString());
        }
        int sqty = int.Parse(txtSalesqty.Text);
        if (sqty > qty) // Insuficient stock
        {
            return true;
        }
        int afterSale = qty - sqty;
        if (afterSale < relevel)
        {
            MessageBox.Show("Stock level is low. Please order the item " +
dr["prodname"].ToString());
        }
        return false;
    }
    private void txtSalesqty_Validated(object sender, EventArgs e)
    {
        int amt = getAmount();
        txtAmt.Text = amt.ToString();
    }
    private int getAmount()
    {
        string sel = "SELECT unitprice FROM cselab.stock WHERE prodid=:prodid";
        OracleCommand cmd = new OracleCommand(sel, conn);
        cmd.Parameters.Add("prodid", cmbmPid.SelectedItem);
        OracleDataReader dr = cmd.ExecuteReader();
    }

```

```

        int uprice = 0;
        if (dr.Read())
        {
            uprice = int.Parse(dr["unitprice"].ToString());
        }
        int sqty = int.Parse(txtSalesqty.Text.ToString());
        int amt = uprice * sqty;
        return amt;
    }
    public void updatestock()
    {
        string upd = "update cselab.stock set quantity=quantity-:salesqty where prodid=:prodid";
        OracleCommand cmd = new OracleCommand(upd, conn);
        cmd.Parameters.Add("salesqty", txtSalesqty.Text);
        cmd.Parameters.Add("prodid", cmbmPid.SelectedItem);
        cmd.ExecuteNonQuery();
    }
    void clear()
    {
        cmbmPid.Text = "";
        txtSalesqty.Text = "";
        txtAmt.Text = "";
        txtSalesdate.Text = "";
    }

    private void btnXit1_Click(object sender, EventArgs e)
    {
        Close();
    }
}
}

```

CODING FOR STOCK FORM:

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;

```

```

using System.Text;
using System.Windows.Forms;
using Oracle.DataAccess.Client;
namespace inventory1
{
    public partial class stock : Form
    {
        public stock()
        {
            InitializeComponent();
        }
        OracleConnection conn;
        Boolean IsExist;

        private void stock_Load(object sender, EventArgs e)
        {
            string oradb = "Data Source=172.18.1.6;User Id=cselab;Password=cselab;";
            conn = new OracleConnection(oradb);
            conn.Open();
        }
        void clear()
        {
            txtPid.Text = "";
            txtPname.Text = "";
            txtPrice.Text = "";
            txtQty.Text = "";
            txtReorder.Text = "";
        }
        private void textBox3_TextChanged(object sender, EventArgs e)
        {
        }
        private void btnStock1_Click(object sender, EventArgs e)
        {
            if (IsExist)
            {
                String upd = "update cselab.stock set quantity=quantity + :qty where prodid=:prodid";
                OracleCommand cmd2 = new OracleCommand(upd, conn);
                cmd2.Parameters.Add("qty", txtQty.Text);
            }
        }
    }
}

```

```

        cmd2.Parameters.Add("prodid", txtPid.Text);
        cmd2.ExecuteNonQuery();
        MessageBox.Show("Quantity is updated");
        clear();
    }
    else
    {
        String ins = "INSERT INTO cselab.stock(prodid, prodname, quantity, unitprice,
reorderlevel) values(:prodid, :prodname, :quantity, :unitprice, :reorderlevel)";
        OracleCommand cmd = new OracleCommand(ins, conn);
        cmd.Parameters.Add("prodid", txtPid.Text);
        cmd.Parameters.Add("prodname", txtPname.Text);
        cmd.Parameters.Add("quantity", txtQty.Text);
        cmd.Parameters.Add("unitprice", txtPrice.Text);
        cmd.Parameters.Add("reorderlevel", txtReorder.Text);
        cmd.ExecuteNonQuery();
        MessageBox.Show("Entry is made in the stock");
        clear(); ;
    }
}

private void btnXit_Click(object sender, EventArgs e)
{
    Close();
}

private void txtPid_Validated(object sender, EventArgs e)
{
    String sel = "Select prodid,prodname,unitprice,reorderlevel from cselab.stock where
prodid=:prodid";
    OracleCommand cmd1 = new OracleCommand(sel, conn);
    cmd1.Parameters.Add("prodid", txtPid.Text);
    String pid = txtPid.Text;
    OracleDataReader dr = cmd1.ExecuteReader();
    IsExist = false;
    if (dr.Read())
    {
        txtPname.Text = dr["prodname"].ToString();
        txtPrice.Text = dr["unitprice"].ToString();
        txtReorder.Text = dr["reorderlevel"].ToString();
        txtPname.Enabled = false;
    }
}

```



```
        txtPrice.Enabled = false;  
        txtReorder.Enabled = false;  
        IsExist = true;  
    }  
}  
  
}  
}
```

RCET

RESULT:

Thus, the Coding was executed successfully.