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

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

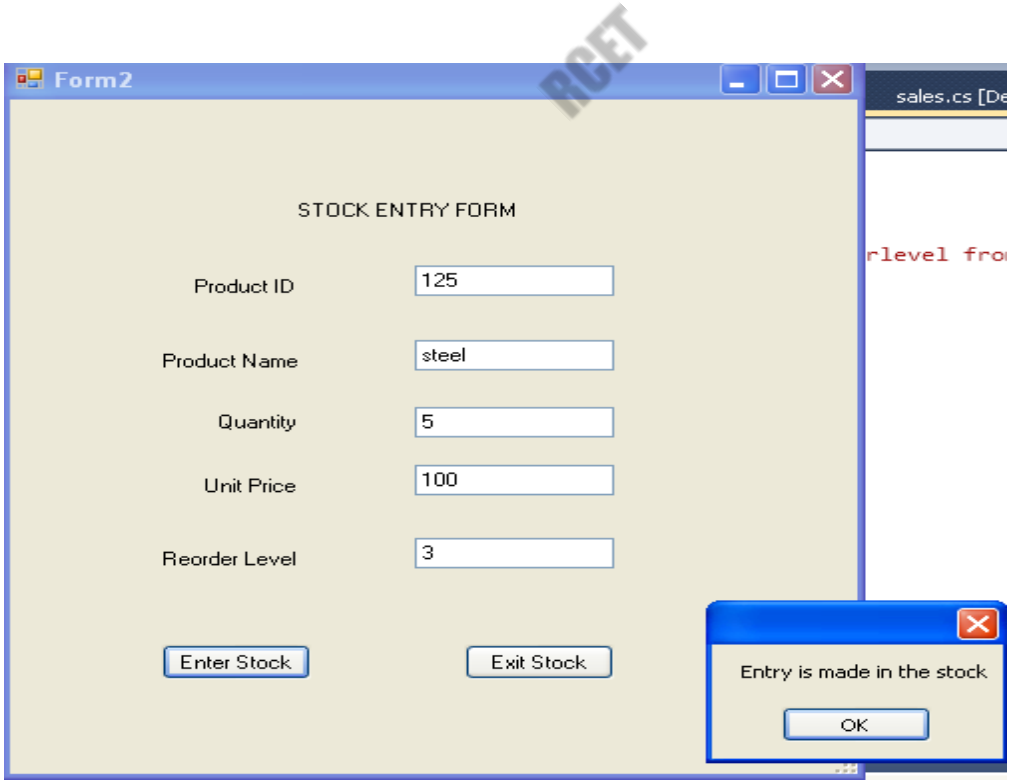
(

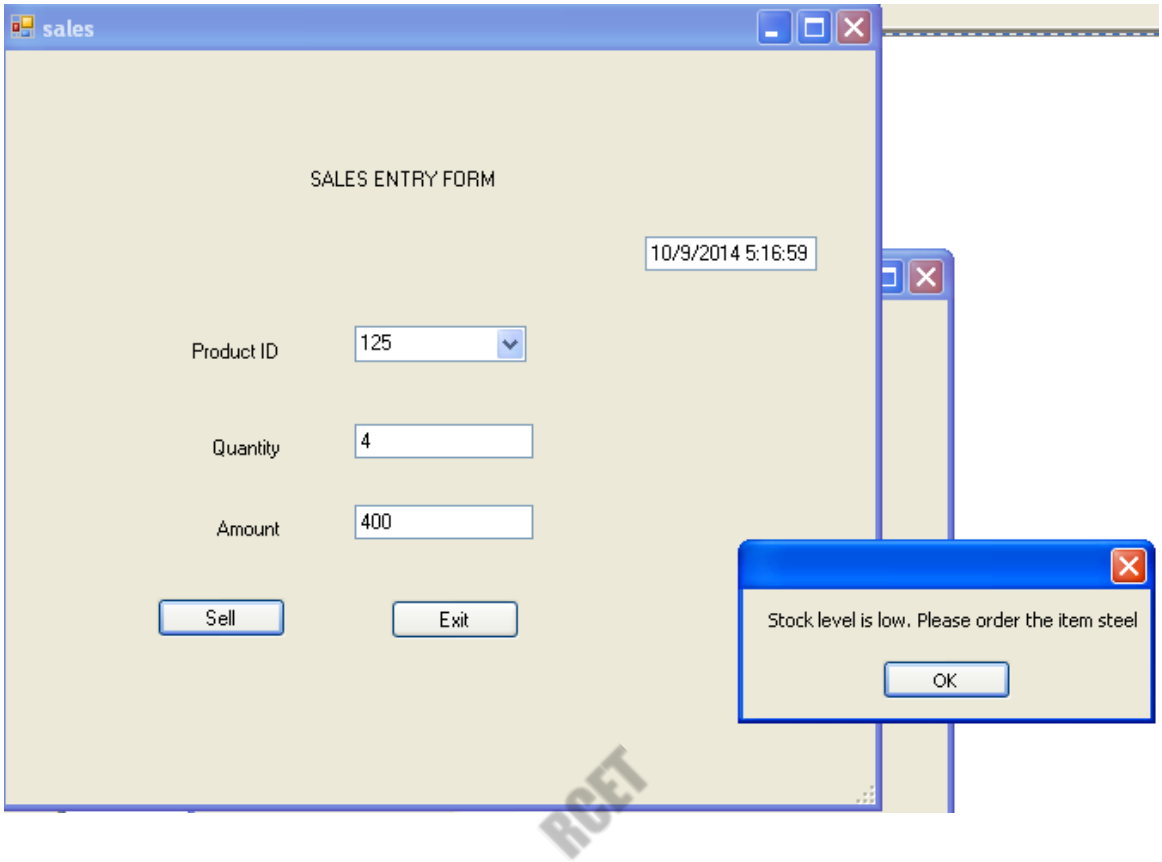
prodid INT REFERENCES stock(prodid), salesqty INT, amount INT, salesdate DATE

);

FORMS:

Inventory control system form:





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())
            {
                cmboPid.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", cmboPid.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", cmboPid.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", cmboPid.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", cmboPid.SelectedItem);
            cmd.ExecuteNonQuery();
        }
        void clear()
        {
            cmboPid.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;
        }
    }

}
}
```


RESULT:

Thus, the Coding was executed successfully.