**Project on Purchase System**

**Source Code :-**

#include<stdlib.h>

#include<cstring>

#include<iostream>

#include<fstream>

#include<sstream>

using namespace std;

struct Product

{

int id;

char name[20];

int price;

int qty;

};

struct Bill

{

int pid;

char pname[20];

int pprice;

};

int getid();

int billFileNo();

void manageProduct();

void purchaseProduct();

void generateBill();

void addProduct();

void displayAllProduct();

struct Product findProduct(int id);

void updateProduct(int id,int qty);

char fproduct[]={"product.dat"};

char fbill[]={"bill.dat"};

int total=0;

int main()

{

fstream \*fp;

int ch;

while(1)

{

cout<<"==========================================================\n\n";

cout<<"\t\tWelcome To Vishal Mega Mart\n\n";

cout<<"===========================================================\n\n";

cout<<"1.Manage Product\n\n";

cout<<"2.Purchase Product\n\n";

cout<<"3.Generate Bill\n\n";

cout<<"0.Exit\n\n";

cout<<"===========================================================\n\n";

cout<<"\nEnter your choice: ";

cin>>ch;

switch(ch)

{

case 1: manageProduct();

break;

case 2: purchaseProduct();

break;

case 3: generateBill();

break;

case 0: cout<<"\n\nThank you";

exit(0);

}

}

return 0;

}

int getId()

{

int value=0;

ifstream fin;

fin.open("prodid.txt",ios::in);

if(fin==NULL)

{

ofstream fout;

fout.open("prodid.txt",ios::out);

fout<<"0";

fout.close();

ifstream fin;

fin.open("prodid.txt",ios::in);

}

fin>>value;

fin.close();

ofstream fout;

fout.open("prodid.txt",ios::out);

fout<<value+1;

fout.close();

return value+1;

}

void manageProduct()

{

int ch,back=0;

while(1)

{

cout<<"===========================================================\n\n";

cout<<"\t\tWelcome To Vishal Mega Mart\n\n";

cout<<"===========================================================\n\n";

cout<<"1.Add New Product\n\n";

cout<<"2.Display All Product\n\n";

cout<<"0.Back\n\n";

cout<<"===========================================================\n\n";

cout<<"\nPlease Enter Your Choice: ";

cin>>ch;

switch(ch)

{

case 1: addProduct();

break;

case 2: displayAllProduct();

break;

case 0: back=1;

break;

}

if(back==1)

{

break;

}

}

}

void addProduct()

{

struct Product t1;

ofstream fout;

fout.open(fproduct,ios::app|ios::binary);

t1.id=getId();

cout<<"\nEnter product name: ";

cin>>t1.name;

cout<<"\nEnter product price: ";

cin>>t1.price;

cout<<"\nEnter product Quantity: ";

cin>>t1.qty;

fout.write((char \*)&t1,sizeof(t1));

fout.close();

}

void displayAllProduct()

{

struct Product t;

int id,found=0;

ifstream fin;

fin.open(fproduct,ios::in|ios::binary);

cout<<"===========================================================\n\n";

cout<<"\t\tProduct Details\n\n";

cout<<"===========================================================\n\n";

cout<<"ID\tName\tQuantity\tPrice\n\n";

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

cout<<t.id<<"\t";

cout<<t.name<<"\t";

cout<<t.qty<<"\t";

cout<<t.price<<"\n";

}

cout<<"===========================================================\n\n";

fin.close();

}

void purchaseProduct()

{

char ch1,ch2;

int id;

cout<<"===========================================================\n\n";

cout<<"\t\tWelcome To Vishal Mega Mart\n\n";

cout<<"===========================================================\n\n";

while(1)

{

displayAllProduct();

fflush(stdin);

cout<<"\n\n\nDo you want to purchase [Y/N]: ";

cin>>ch1;

if(ch1=='Y')

{

struct Bill t1;

struct Product t2;

ofstream fout;

fout.open(fbill,ios::app|ios::binary);

cout<<"\n\nEnter Product ID to Purchase: ";

cin>>id;

t2=findProduct(id);

t1.pid=t2.id;

strcpy(t1.pname,t2.name);

t1.pprice=t2.price;

fout.write((char \*)&t1,sizeof(t1));

fout.close();

}

fflush(stdin);

cout<<"\n\n\nDo you want to continue [Y/N]: ";

cin>>ch2;

if(ch2=='N')

{

break;

}

}

}

struct Product findProduct(int id)

{

struct Product t;

ifstream fin;

fin.open(fproduct,ios::in|ios::binary);

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

if(t.id==id)

{

updateProduct(id,t.qty-1);

break;

}

}

fin.close();

return t;

}

void updateProduct(int id,int qty)

{

struct Product t,t1;

int found=0;

ifstream fin;

ofstream fout;

fin.open(fproduct,ios::in|ios::binary);

fout.open("temp.dat",ios::out|ios::binary);

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

if(t.id==id)

{

found=1;

t.qty=qty;

fout.write((char \*)&t,sizeof(t));

}

else

{

fout.write((char \*)&t,sizeof(t));

}

}

fin.close();

fout.close();

if(found==0)

{

printf("Sorry No Record Found\n\n");

}

else

{

ofstream fout;

ifstream fin;

fout.open(fproduct,ios::out|ios::binary);

fin.open("temp.dat",ios::in|ios::binary);

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

fout.write((char \*)&t,sizeof(t));

}

}

fin.close();

fout.close();

}

void generateBill()

{

struct Bill t;

int id,found=0;

char ch1;

int brel=0;

char billname[20];

ifstream fin;

fin.open(fbill,ios::in|ios::binary);

cout<<"\n===================================================\n\n";

cout<<"\t\tBill Details\n\n";

cout<<"===================================================\n\n";

cout<<"Pro-ID\tPro-Name\tPro-Price\n\n";

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

cout<<t.pid<<"\t";

cout<<t.pname<<"\t";

cout<<t.pprice<<"\n";

total=total+t.pprice;

}

cout<<"\n\n===============>>>>Total Bill Amount[Rs. : "<<total;

fin.close();

if(total!=0)

{

fflush(stdin);

cout<<"\n\nDo you want to generate Final Bill [Y/N]: ";

cin>>ch1;

if(ch1=='Y')

{

brel=billFileNo();

stringstream ss;

ss<<brel;

char st[20];

ss>>st;

strcpy(billname,st);

strcat(billname,".dat");

ifstream fin;

fin.open(fbill,ios::in|ios::binary);

ofstream fout;

fout.open(billname,ios::out|ios::binary);

while(1)

{

fin.read((char \*)&t,sizeof(t));

if(!fin)

{

break;

}

fout.write((char \*)&t,sizeof(t));

}

fin.close();

fout.close();

fout.open(fbill,ios::out|ios::binary);

fout.close();

total=0;

}

}

else

{

cout<<"\n\nSorry no item purchased\n\n";

}

}

int billFileNo()

{

int value=0;

ifstream fin;

fin.open("billno.txt",ios::in);

if(fin==NULL)

{

ofstream fout;

fout.open("billno.txt",ios::out);

fout<<"0";

fout.close();

ifstream fin;

fin.open("billno.txt",ios::in);

}

fin>>value;

fin.close();

ofstream fout;

fout.open("billno.txt",ios::out);

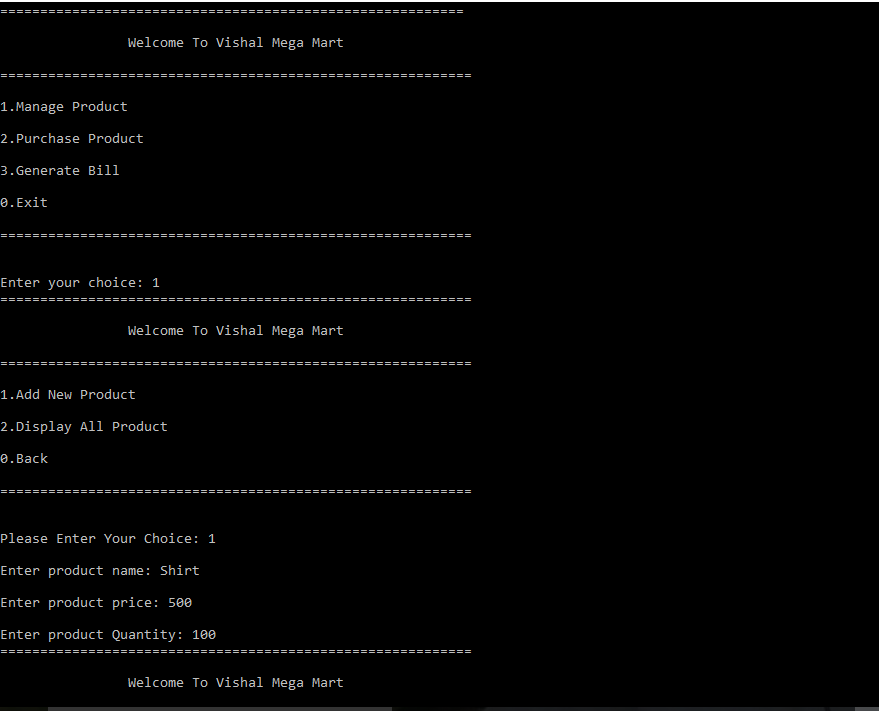
fout<<value+1;

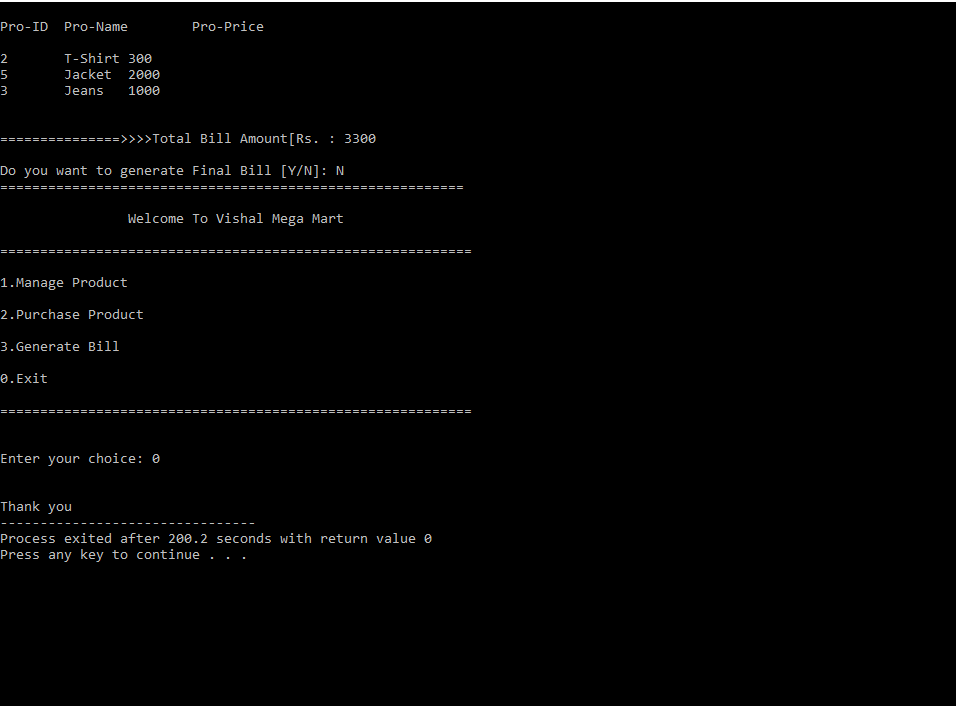
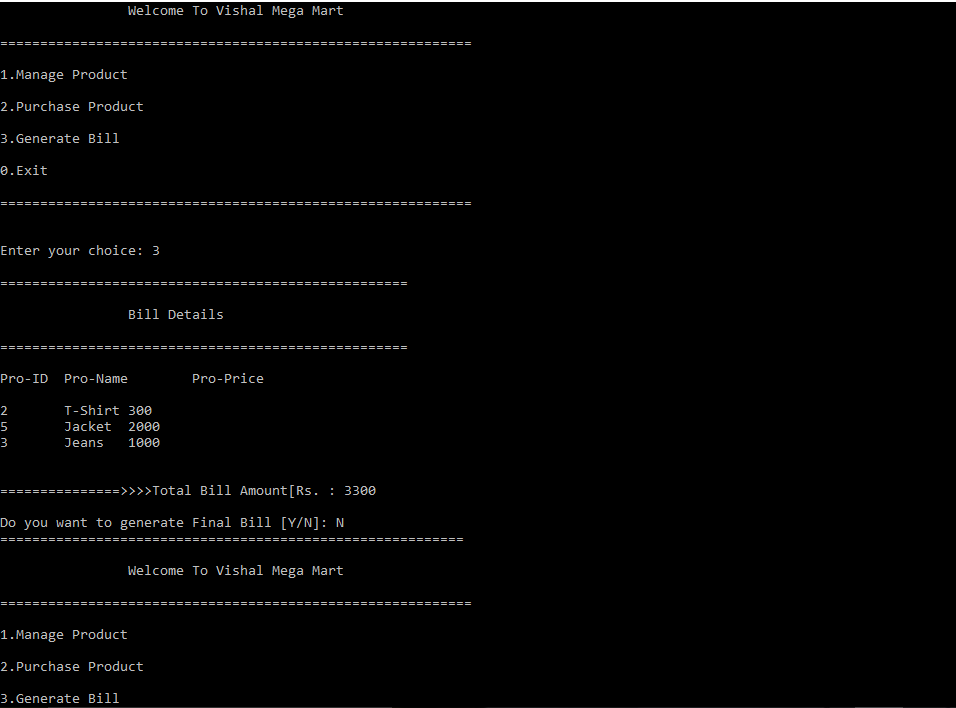
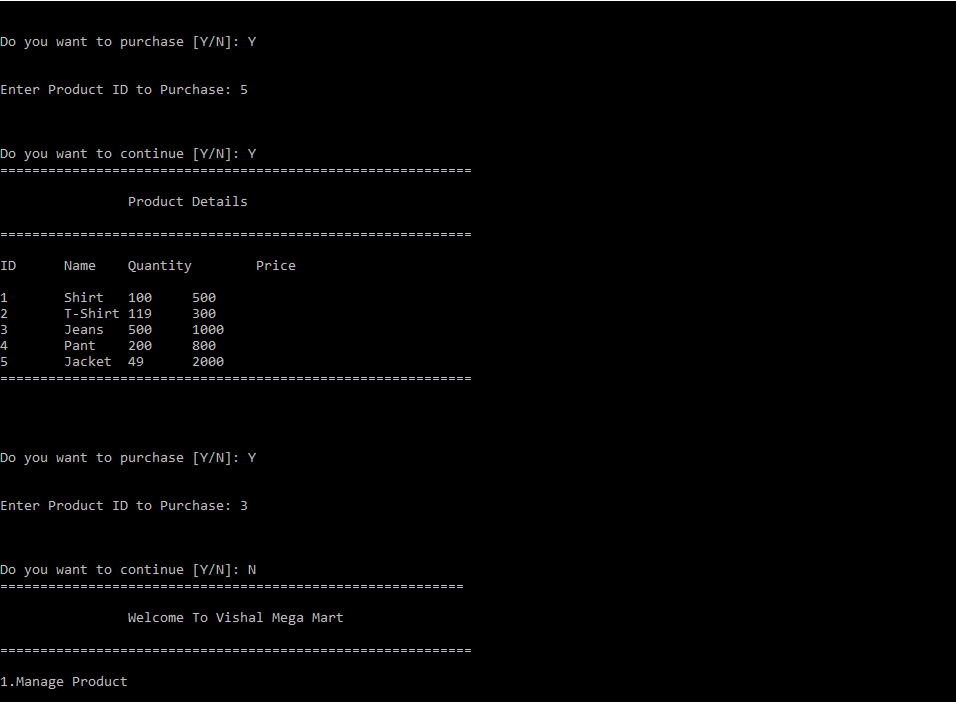
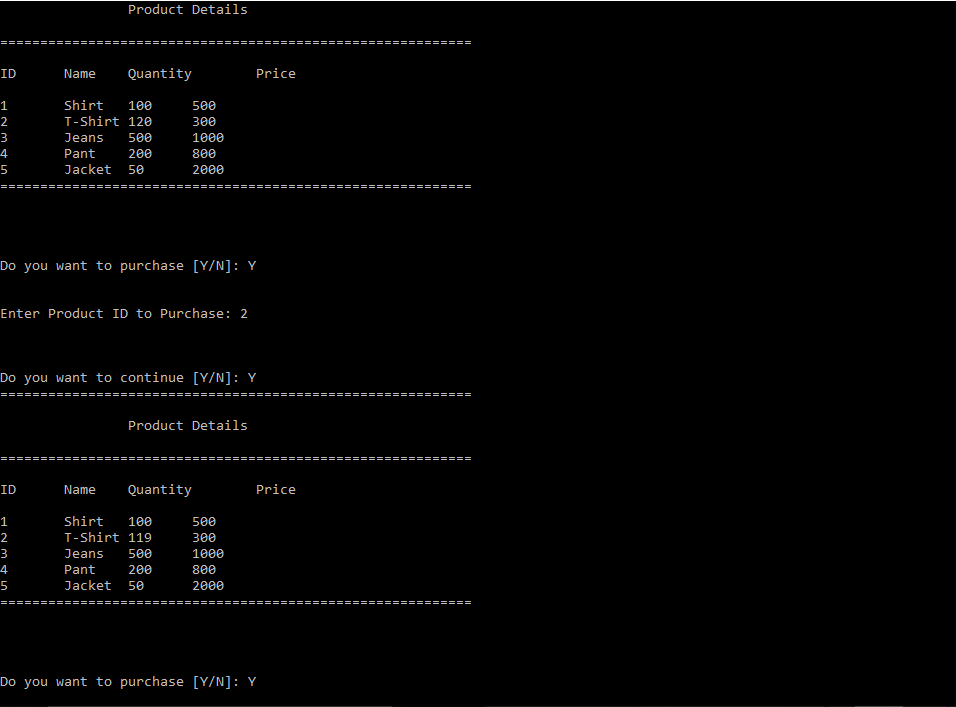
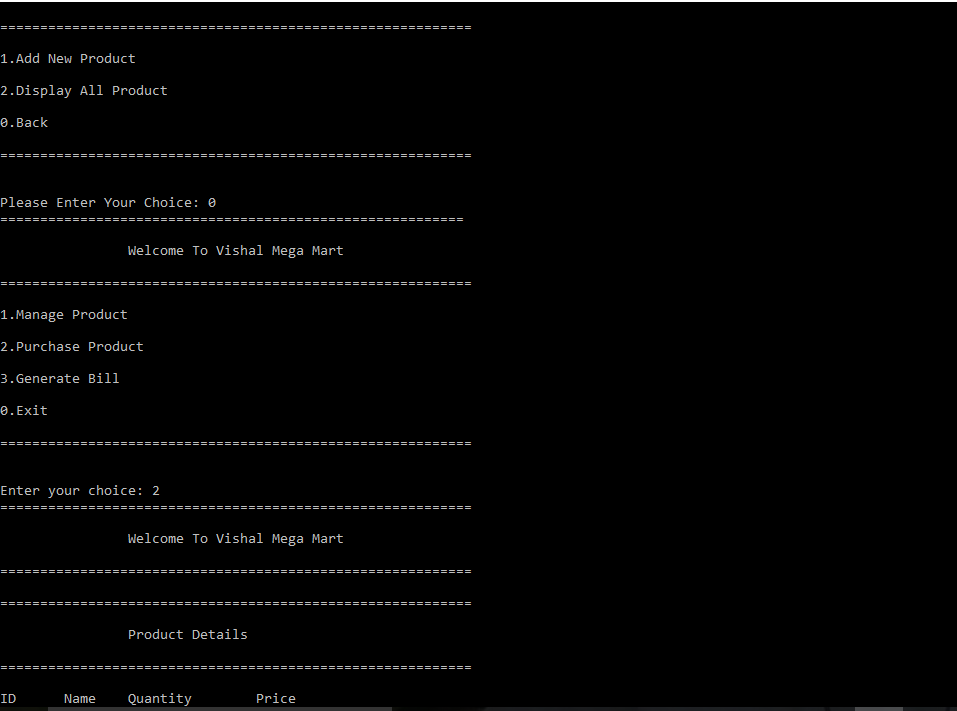
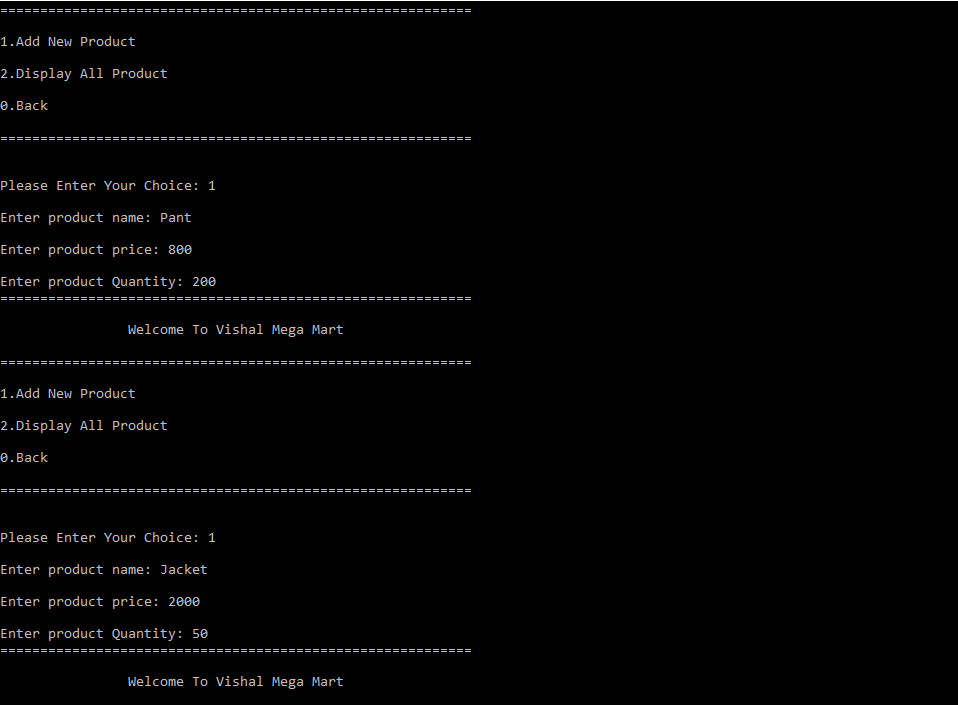
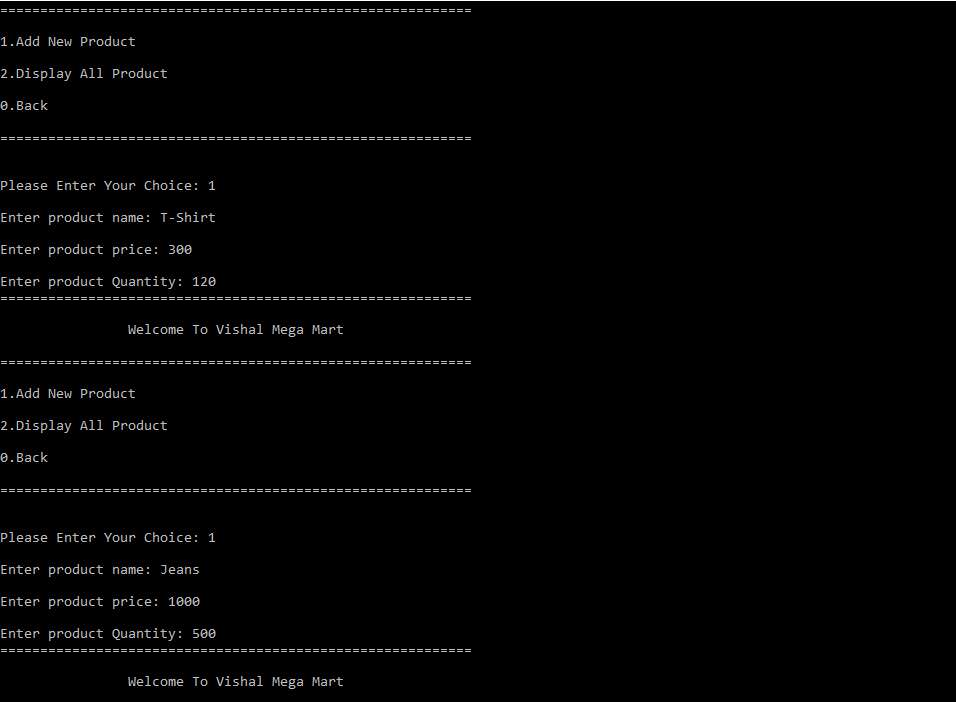
fout.close();

return value+1;

}

**Output :-**

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