#include<bits/stdc++.h>

using namespace std;

class Restaurant

{

public:

int food\_item\_codes[12];

string food\_item\_names[12];

int food\_item\_prices[12];

protected:

double total\_tax;

public:

Restaurant()

{

this->total\_tax=0;

}

void set\_Tax(double tax)

{

this->total\_tax=tax;

}

};

Restaurant\* restaurant()

{

Restaurant \*rt=new Restaurant();

return rt;

}

void ShowItem(Restaurant \*rt,int item)

{

int it=item;

cout<<"\t\t\tMAKE BILL"<<endl;

cout<<"\t\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<endl<<endl;

cout<<"Item Code\t\t";

cout<<"Item Name\t\t\t";

cout<<"\t\tItem Price\t\t";

cout<<endl<<endl;

for(int i=0;i<it;i++)

{

cout<<rt->food\_item\_codes[i]<<"\t\t\t"<<rt->food\_item\_names[i]<<"\t\t\t\t"<<rt->food\_item\_prices[i]<<endl;

}

cout<<endl;

}

void Order(Restaurant \*rt,int item)

{

int it=item;

int table\_no,number\_of\_item;

cout<<"Enter Table No:";

cin>>table\_no;

cout<<"Enter Number of item:";

cin>>number\_of\_item;

cout<<endl;

int ar\_code[number\_of\_item]={0};

int ar\_quantity[number\_of\_item];

int total\_price[number\_of\_item]={0};

for(int i=1;i<=number\_of\_item;i++)//..............................

{

Flag:

bool found=false;

cout<<"Enter item "<<i<<" code:";

cin>>ar\_code[i];

// cout<<"Enter item "<<i<<" quantity:";

// cin>>ar\_quantity[i];

//cout<<endl;

for(int b=0;b<it;b++)

{

if(ar\_code[i]==rt->food\_item\_codes[b])

{

found=true;

cout<<"Enter item "<<i<<" quantity:";

cin>>ar\_quantity[i];

cout<<endl;

}

}

if(!found)

{

cout<<"code not valid.Reenter item "<<i<<" code"<<endl<<endl;

goto Flag;

}

}

cout<<endl;

double tax;

double tax\_parcent=0.05;

float net\_total=0;

cout<<"\t\t\t BILL SUMMARY"<<endl;

cout<<"\t\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<endl;

cout<<"Table No. :"<<table\_no<<endl;

cout<<"Item Code\t\t";

cout<<"Item Name\t\t";

cout<<"\t\tItem Price\t\t";

cout<<"Item quantity\t";

cout<<" Total Price";

cout<<endl;

for(int i=1; i<=number\_of\_item; i++)

{

for(int a=0; a<it; a++)

{

if(ar\_code[i]==rt->food\_item\_codes[a])

{

total\_price[i]=ar\_quantity[i]\*rt->food\_item\_prices[a];

cout<<ar\_code[i]<<"\t\t\t"<<rt->food\_item\_names[a]<<"\t\t\t"<<rt->food\_item\_prices[a]<<"\t\t\t"<<ar\_quantity[i]<<"\t\t\t"<<total\_price[i]<<endl;

net\_total+=total\_price[i];

}

}

}

tax=net\_total\*tax\_parcent;

cout<<"Tax\t\t\t\t\t\t\t\t\t\t\t\t\t\t"<<tax;

cout<<endl;

net\_total+=tax;

cout<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<endl;

cout<<"NET TOTAL\t\t\t\t\t\t\t\t\t\t\t\t\t"<<net\_total<<endl;

rt->set\_Tax(tax);

}

int main()

{

// Restaurant \*rt=new Restaurant();

Restaurant \*rt= restaurant();

cout<<"Number of items:";

int item;

cin>>item;

cout<<endl;

for(int i=0;i<item;i++)

{

cout<<"Item "<<i+1<<" code: "; //setw()

cin>>rt->food\_item\_codes[i];

cout<<"Item "<<i+1<<" name: ";

//cin>>rt->food\_item\_names[i];

//gets(rt->food\_item\_names[i]);

cin.ignore();

getline(cin,rt->food\_item\_names[i]);

cout<<"Item "<<i+1<<" price: ";

cin>>rt->food\_item\_prices[i];

cout<<endl<<endl;

}

ShowItem(rt,item);

Order(rt,item);

//delete rt;

}