Assignment No.: Date:

* **Problem Statement:**

**Write a program using class to process shipping list for a departmental store . The list include details such as the code number & price of each item & perform the operations like adding ,deleting items to the list & printing the total value of the order.**

* **Algorithm:**
* **Name of the class :-** shipping\_list
* **Private data members of the class :-** item\_code[10],price[10],index=0,item,i,found,flag=0;.
* **Public member functions of the class :-**
  + **addition( ) :-** This method is used to add all the values.
  + **deletion( ) :-** This method is used to delete values from list.
  + **sum( ) :-** This method is used to sum the prices.
  + **display( ) :-** This method is used to display values.

**Algorithm for method addition() :-**

1. Input : “Enter the item code : ”
2. Read item code
3. Input : “Enter price : ”
4. Read price
5. Increment index by 1

[End of method addition( )]

**Algorithm for method deletion( ) :-**

1. Input : “Enter item code: ”
2. Read item
3. Repeat through step 3 to step 7 for i = 0 to index – 1
4. If(item==item code)
5. Set price=0
6. Set item code =0
7. Next i

[End of for loop]

**Algorithm for method sum( ) :-**

1. Set s=0
2. Repeat through step 2 to step 4 for i = 0 to index – 1
3. S=s+price[i]
4. Next i
5. Print “total value”

[End of for loop]

[End of method sum( )]

**Algorithm for method display() :-**

1. Print “item code : ”
2. Print “price”

**Algorithm for method main( ) :-**

1. Print “"\n Choose from the following :\n 1. Add an item\n 2. Delete an item\n 3. Display total value\n 4. Display all items\n 5. Quit\n";
2. Read ch;
3. If choice is 1 then Call the method addition( )
4. If choice is 2 then Call the method deletion( )
5. If choice is 3 then Call the method sum( )
6. If choice is 4 then Call the method display( )
7. End of switch
8. End of if
9. stop

[End of method main( )]

* **Source Code:**

#include<iostream>

using namespace std;

class shipping\_list

{

private :

int item\_code[10];

int price[10];

int index=0;

int item,i,found,flag=0;

public :

void addition(void)

{

cout<<"\n Enter Item Code : ";

cin>>item\_code[index];

cout<<"\n Enter Price : ";

cin>>price[index];

index++;

}

void deletion(void)

{

cout<<"\n Enter Item Code : ";

cin>>item;

for(i=0;i<=index;i++)

{

if(item==item\_code[i])

{

price[i]=0;

item\_code[i]=0;

}

}

}

void display\_price(void)

{

for(i=0;i<index;i++)

{

cout<<"Item Code : "<<item\_code[i];

cout<<"Price : "<<price[i];

}

}

void sum(void)

{

int s=0;

for(i=0;i<index;i++)

s=s+price[i];

cout<<"\n Total value : "<<s;

}

};

int main()

{

shipping\_list sl[10];

int index,ch;

//for(index=0;index<10;index++)

//{

do

{

cout<<"\n Choose from the following :\n 1. Add an item\n 2. Delete an item\n 3. Display total value\n 4. Display all items\n 5. Quit\n";

cin>>ch;

switch(ch)

{

case 1 : sl[index].addition();

break;

case 2 : sl[index].deletion();

break;

case 3 : sl[index].sum();

break;

case 4 : sl[index].display\_price();

break;

case 5 : cout<<"\n Thank you!";

break;

default : cout<<"\n Enter a correct value";

}

}while(ch!=5);

return 0;

}

* **Input & Output:**

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

1

Enter Item Code : 5

Enter Price : 2000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

1

Enter Item Code : 6

Enter Price : 3000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

1

Enter Item Code : 7

Enter Price : 4000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all item

5. Quit

3

Total value : 9000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

4

Item Code : 5Price : 2000Item Code : 6Price : 3000Item Code : 7Price : 4000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

2

Enter Item Code : 6

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

4

Item Code : 5 Price : 2000 Item Code : 0 Price : 0 Item Code : 7 Price : 4000

Choose from the following :

1. Add an item

2. Delete an item

3. Display total value

4. Display all items

5. Quit

3

Total value : 6000

* **Discussion:**
* Here we can use if-else statement instade of switch structure.
* Inclusion of a database will make the system more dynamic.
* Our system is totally based on CUI, so we can improve this program

by using GUI concept.