Green University of Bangladesh

Department of Computer Science and Engineering(CSE)

Faculty of Sciences and Engineering

Semester: (Summer, Year:2022), B.Sc. in CSE (Day)

LAB PROJECT REPORT

Course Title: Data Structure Lab

Course Code: CSE 106 Section: DB

Student Details

	Name	ID
1.	Arafath Islam Sezan	213902035

Submission Date : _ 10-09-2022_

Course Teacher : Farhana Akter Sunny

[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status

Marks: …… Signature:.....

Comments:..... Date:.....

TABLE OF CONTENTS

Introduction

1.1 Introduction

C is a structured programming language created in the 1970s by Dennis Ritchie.It is widely used by programmers all over the world.C language is mostly hardware independent as it is possible to write C programs that are portable to most computers.

1.2 Motives

Here some reasons why we need Shipping Agency Management system

- Analysis buyers need
- Having anytime access
- Easy to update product information
- Controlling the products
- Saving Time and manpower also reduces human error.

2. Project Implementation

2.1 C codes

```
//Arafath Islam Sezan
//dept.CSE-213
// ID- 213902035
// Shipping Agency Management system
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
```

```
#include<conio.h>
struct Product
{
   long int reg;
   char
Batch_number[200],company_name[50],imported_country[200],pro_name[150];
   int quantity_order,quantity_sup;
   struct Product *next;
}* head;
void imported_countryed(long int reg, char* Batch_number, char*
company_name, char* imported_country, char* pro_name, int quantity_order,int
quantity_sup)
{
   struct Product *Product=(struct Product *)malloc(sizeof(struct Product));
   Product -> reg=reg;
   strcpy(Product->Batch_number, Batch_number);
   strcpy(Product-> company_name, company_name);
   strcpy(Product->pro_name,pro_name);

   Product-> quantity_order= quantity_order;
   Product-> quantity_sup = quantity_sup;

   Product-> next=NULL;
   if(head==NULL)
   {
      head= Product;
   }
   else
   {
      struct Product* temp=head;
      while(temp->next!=NULL)
         temp=temp->next;
      temp-> next=Product;
```

```
    }
    printf("\n\n \t\tProduct Added Successfully IN The List at Registration No. %ld
!!\n",reg);
}
int total_item(struct Product*temp)
{
    int count=0;
    struct Product*current=head;
    while (current!=NULL)
    {
        count++;
        current= current->next;
    }
    return count;
}
void display()
{
    int count;
    struct Product *temp=head;
    if(temp==NULL)
    {
        printf("\n\n Information Of Registration No. List is Empty!!!\n");
    }
    else
    {
        printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-Products Information
List*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-");

printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-*-*-*-*-*-*-*-\n");
        while (temp!=NULL)
        {
            printf("\n\t\tEnter Product registration Number :%ld\n",temp->reg);
```

```
            printf("\t\tEnter Product Batch Number :%s\n",temp->Batch_number);
            printf("\t\tEnter Company Name :%s\n",temp->company_name);
            printf("\t\tEnter Product Import Country
Name:%s\n",temp->imported_country);
            printf("\t\tProduct Name:%s\n",temp->pro_name);
            printf("\t\tQuantity of Product (order) :%d\n",temp->quantity_order);
            printf("\t\tQuantity of product (supplied) : %d\n",temp->quantity_sup);
            temp = temp->next;
        }

printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-*-*-*-*-*-*-*-*-\n");
        printf("\n\t\t\tTotal Registered Information of Product in the list is : %d",
total_item(head));
    }
}
void search(long int reg)
{
    struct Product* temp=head;
    if (head==NULL)
    {
        printf("\n\n Information of Registration No. List is Empty !!!\n");
    }
    else
    {
        while(temp!=NULL)
        {
            if(temp!=NULL)
            {

                printf("\n\t\t\tInformation of Registration No. %ld Is Found !!!\n", reg);
```

```
printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-*-*-*-*-*-*-\n");
            printf("\t\t\t                    Searching Product Information List
");

printf("\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-*-*-*-*-*-*-\n");
            printf("\n\t\t\tEnter Product registration Number :%ld\n",temp->reg);
            printf("\t\t\tEnter Product Batch Number :%s\n",temp->Batch_number);
            printf("\t\t\tEnter Company Name :%s\n",temp->company_name);
            printf("\t\t\tEnter Product Import Country Name
:%s\n",temp->imported_country);
            printf("\t\t\tProduct Name :%s\n",temp->pro_name);
            printf("\t\t\tQuantity of Product (order) :%d\n",temp->quantity_order);
            printf("\t\t\tQuantity of Product (supplied): %d\n",temp->quantity_sup);
            return;
            }
            temp=temp->next;
         }
      }
      printf("\n\n Not Found the Product with %ld reg No. In the Information List!!!
\n",reg);
}

void Delete(long int reg)
{
   struct Product *temp1=head;
   struct Product *temp2=head;
   while(temp1!=NULL)
   {

      if(temp1->reg==reg)
```

```
        {
            printf("\n\t\t\tInformation of Registration No. %ld Is Found !!!\n", reg);
            if(temp1==temp2)
            {
                head=head->next;
                free(temp1);
            }
            else
            {
                temp2->next=temp1->next;
                free(temp1);
            }
            printf("\n\t\t\tDeleting of the Registration No. Product Information
Successfully !!!!\n");
            return;
        }
        temp2=temp1;
        temp1=temp1->next;
    }
    printf("\n\n\t\t\tNot Found the Product with %ld Reg No. In The Information
List !!!!!\n",reg);
}
void update(long int reg)
{
    struct Product * temp = head;
    while(temp!=NULL)
    {
        if(temp->reg==reg)
        {
            printf("\n\t\t\tInformation of Registration No. %ld Is Found !!!\n\n\n", reg);
            printf("\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-Update Product
-*-*-*-*-*-*-*-*-*-*-*-*");
```

```
printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-\n");
        printf("\n\t\t\tUpdate Product Registration Number :");
        scanf("%ld",&temp->reg);
        printf("\n\t\t\tUpdate Products Batch Number :");
        fflush(stdin);
        gets(temp->Batch_number);
        printf("\n\t\t\tUpdate Company Name :");
        fflush(stdin);
        gets(temp->company_name);
        printf("\n\t\t\tUpdate Product imported country Name :");
        fflush(stdin);
        gets(temp->imported_country);
        fflush(stdin);
        printf("\n\t\t\tUpdate Product Name :");
        fflush(stdin);
        gets(temp->pro_name);
        printf("\n\t\t\tUpdate Quantity of Product (order) :");
        fflush(stdin);
        scanf("%d",&temp->quantity_order);
        printf("\n\t\t\tUpdate Quantity of Product (Supplied) : ");
        scanf("%d",&temp->quantity_sup);
        printf("\n\n\t\t\tInformation of this Registration No. %ld Update
Successfully In The List !!!\n",temp->reg);
        return;
     }
     temp = temp->next;
     }
  printf("\n\n\t\t\tNot Found the Product with %ld Reg No. In The Information
List !!!!!\n",reg);
}
int main()
```

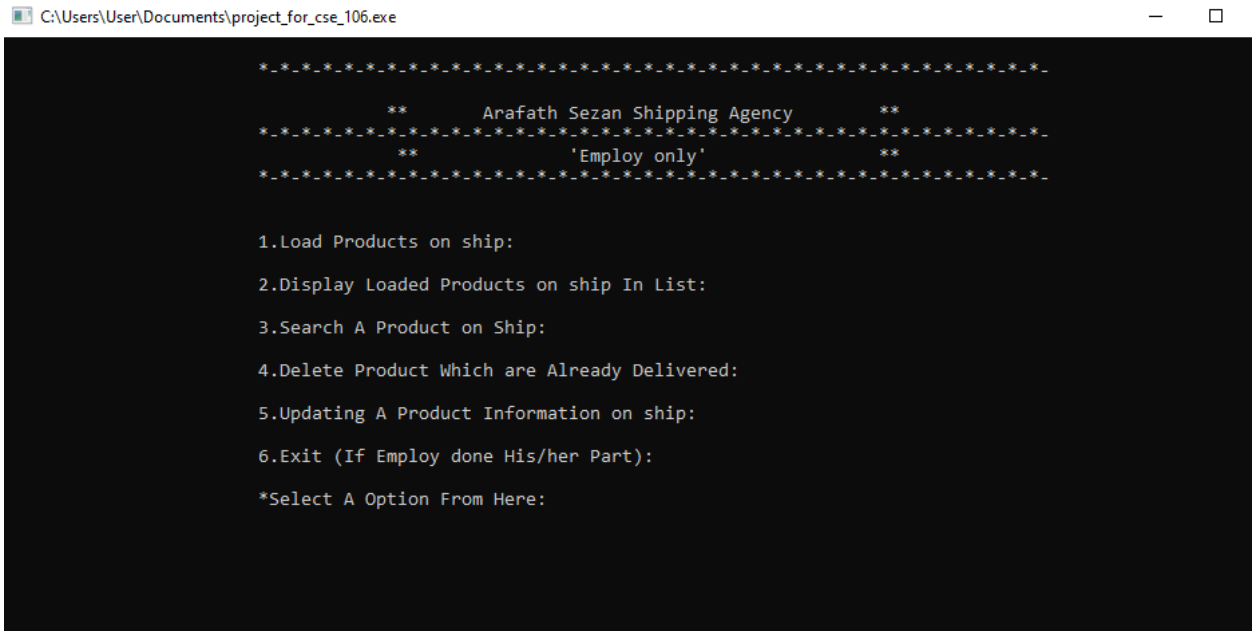
```
{
   head = NULL;
   int choice,temp,quantity_order,quantity_sup;
   long int reg;
   char
Batch_number[250],company_name[250],imported_country[250],pro_name[150];
   system("cls");

   while(1)
   {
      system("cls");

printf("\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-\n");
      printf("\n\t\t\t          **      Arafath Sezan Shipping Agency       **
");

printf("\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-\n");
      printf("\t\t\t           **            'Employ only'              **             ");

printf("\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-\n");
      printf("\n\n\t\t\t1.Load Products on ship:");
      printf("\n\n\t\t\t2.Display Loaded Products on ship In List:");
      printf("\n\n\t\t\t3.Search A Product on Ship:");
      printf("\n\n\t\t\t4.Delete Product Which are Already Delivered:");
      printf("\n\n\t\t\t5.Updating A Product Information on ship:");
      printf("\n\n\t\t\t6.Exit (If Employ done His/her Part):");
      printf("\n\n\t\t\t*Select A Option From Here: ");
      scanf("%d",&choice);
      switch (choice)
      {
```

```
        case 1:
            system("cls");
            printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-Enter New Product
Information*-*-*-*-*-*-*-*-*-*-*-*-*-");

printf("\n\n\t\t\t*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
-*-*-*-*-\n");
            printf("\n\t\t\tEnter Product Registration Number :");
            scanf("%ld",&reg);
            printf("\n\t\t\tEnter Product Batch Number :");
            fflush(stdin);
            gets(Batch_number);
            printf("\n\t\t\tEnter Company Name :");
            fflush(stdin);
            gets(company_name);
            printf("\n\t\t\tEnter Product Import Country Name:");
            fflush(stdin);
            gets(imported_country);
            printf("\n\t\t\tProduct Name :");
            fflush(stdin);
            gets(pro_name);
            printf("\n\t\t\tQuantity of product (order) :");
            fflush(stdin);
            scanf("%d",&quantity_order);
            printf("\n\t\t\tQuantity of product (Supplied) : ");
            fflush(stdin);
            scanf("%d",&quantity_sup);
            imported_countryed(reg, Batch_number, company_name,
imported_country, pro_name, quantity_order, quantity_sup);
            break;
        case 2:
            system("cls");
            display();
```

```
    break;
case 3:
    system("cls");
    display();
    printf("\n\n\t\t\tTo Search Enter The Product Registration No. :");
    scanf("%ld",&reg);
    system("cls");
    search(reg);
    break;
case 4:
    system("cls");
    display();
    printf("\n\n\t\t\tTo Delete Enter The Product Registration No. :");
    scanf("%ld",&reg);
    system("cls");
    Delete(reg);
    break;
case 5:
    system("cls");
    display();
    printf("\n\n\t\t\tTo Update Enter The Product Registration No. :");
    scanf("%ld",&reg);
    system("cls");
    update(reg);
    break;
case 6:
    exit(1);
default :
    system("cls");
    printf("\n\t\t\tInvalid Option!!!Choice Right Option!!");
}
printf("\n\n\t\t\tContinue to Again!!!");
getch();
```

```
    }
}
```

2.2 Output

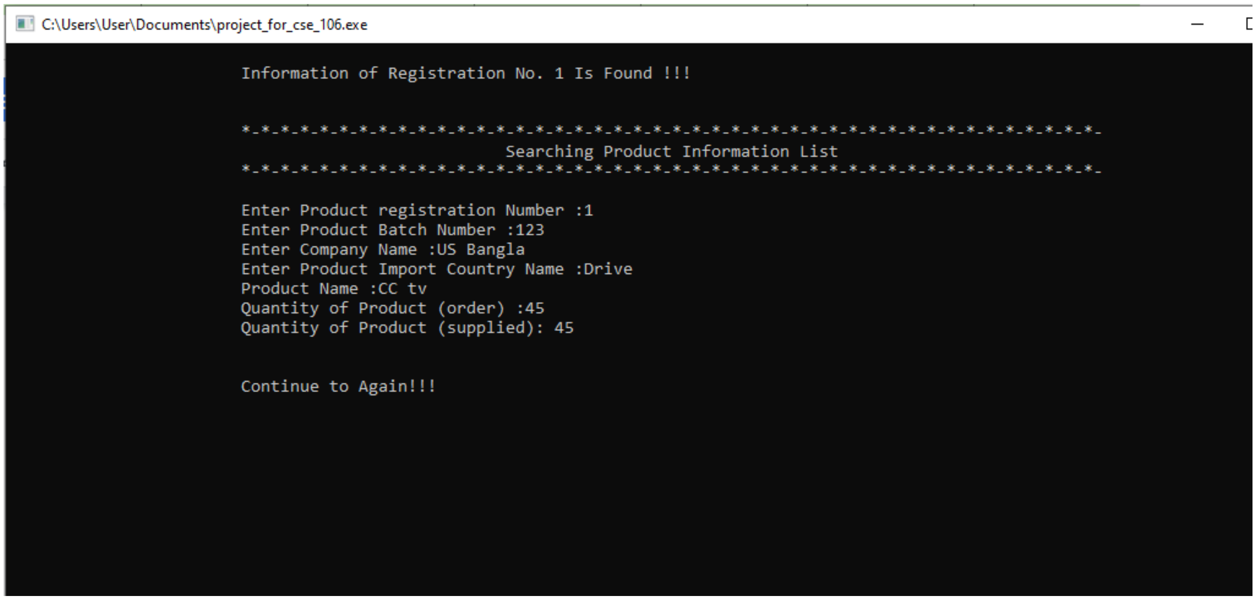

C:\Users\User\Documents\project_for_cse_106.exe
Arafath Sezan Shipping Agency
'Employ only'
1.Load Products on ship:
2.Display Loaded Products on ship In List:
3.Search A Product on Ship:
4.Delete Product Which are Already Delivered:
5.Updating A Product Information on ship:
6.Exit (If Employ done His/her Part):
*Select A Option From Here:

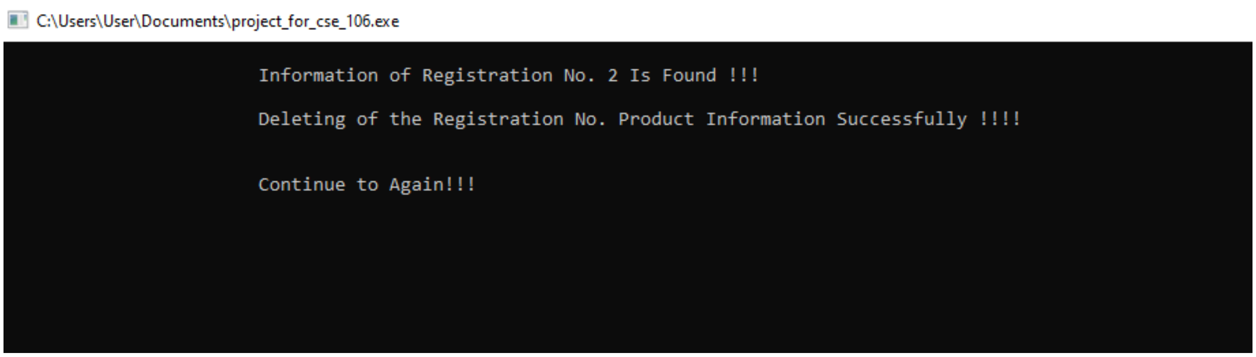
C:\Users\User\Documents\project_for_cse_106.exe

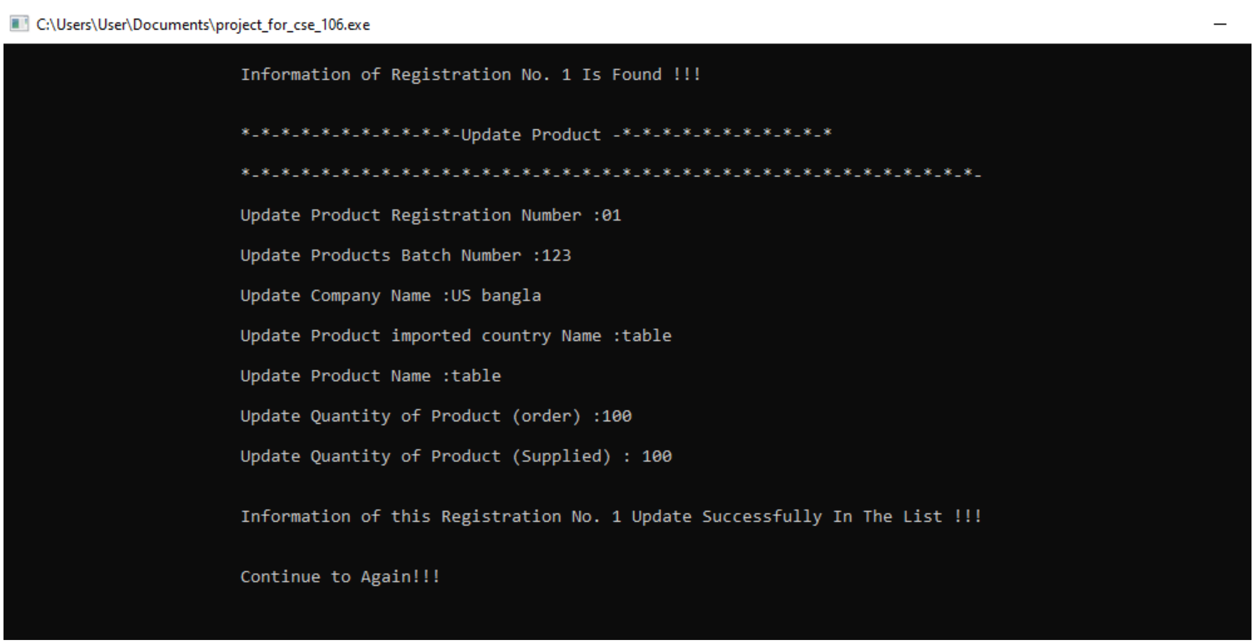
```
*-*-*-*-*-*-*-*-*-*-*-*-Enter New Product Information*-*-*-*-*-*-*-*-*-*-*-
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-

Enter Product Registration Number :01

Enter Product Batch Number :123

Enter Company Name :US Bangla

Enter Product Import Country Name:Bangladesh

Product Name :CC tv

Quantity of product (order) :45

Quantity of product (Supplied) : 45

Product Added Successfully IN The List at Registration No. 1 !!

Continue to Again!!!
```

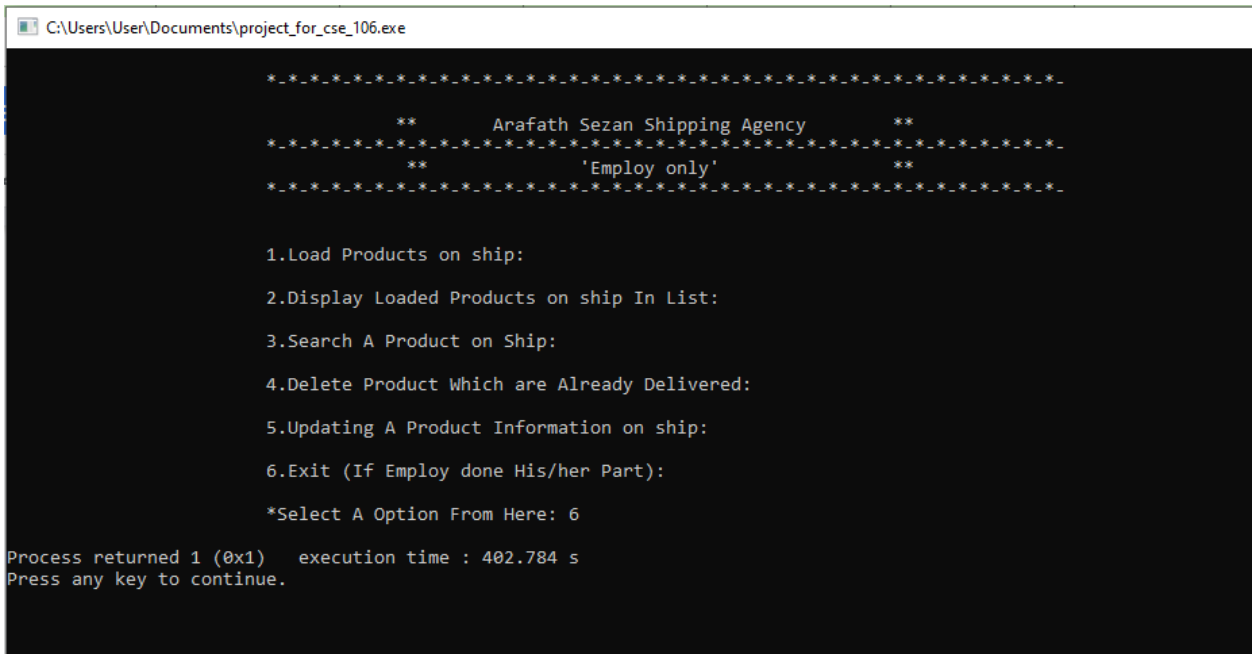
C:\Users\User\Documents\project_for_cse_106.exe

```
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-Products Information List*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-

Enter Product registration Number :1
Enter Product Batch Number :123
Enter Company Name :US Bangla
Enter Product Import Country Name:Drive
Product Name:CC tv
Quantity of Product (order) :45
Quantity of product (supplied) : 45

Enter Product registration Number :2
Enter Product Batch Number :1234
Enter Company Name :gub
Enter Product Import Country Name:rogramFiles(x86)=C:\Program Files (x86)
Product Name:glass
Quantity of Product (order) :1900
Quantity of product (supplied) : 1800

*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-

Total Registered Information of Product in the list is : 2

Continue to Again!!!
```


C:\Users\User\Documents\project_for_cse_106.exe
Information of Registration No. 1 Is Found !!!
*-
Searching Product Information List
*-
Enter Product registration Number :1
Enter Product Batch Number :123
Enter Company Name :US Bangla
Enter Product Import Country Name :Drive
Product Name :CC tv
Quantity of Product (order) :45
Quantity of Product (supplied): 45
Continue to Again!!!


C:\Users\User\Documents\project_for_cse_106.exe
Information of Registration No. 2 Is Found !!!
Deleting of the Registration No. Product Information Successfully !!!!
Continue to Again!!!


C:\Users\User\Documents\project_for_cse_106.exe
Information of Registration No. 1 Is Found !!!
--*-*-*-*-*-*-*-*-*-Update Product -*-*-*-*-*-*-*-*-*-*-*
*-
Update Product Registration Number :01
Update Products Batch Number :123
Update Company Name :US bangla
Update Product imported country Name :table
Update Product Name :table
Update Quantity of Product (order) :100
Update Quantity of Product (Supplied) : 100
Information of this Registration No. 1 Update Successfully In The List !!!
Continue to Again!!!



3. Conclusion

After we have completed the project we are sure the problems the existing system would
overcome. The “Shipping Agency Management system” process was made computerized to
reduce human errors and to increase efficiency.