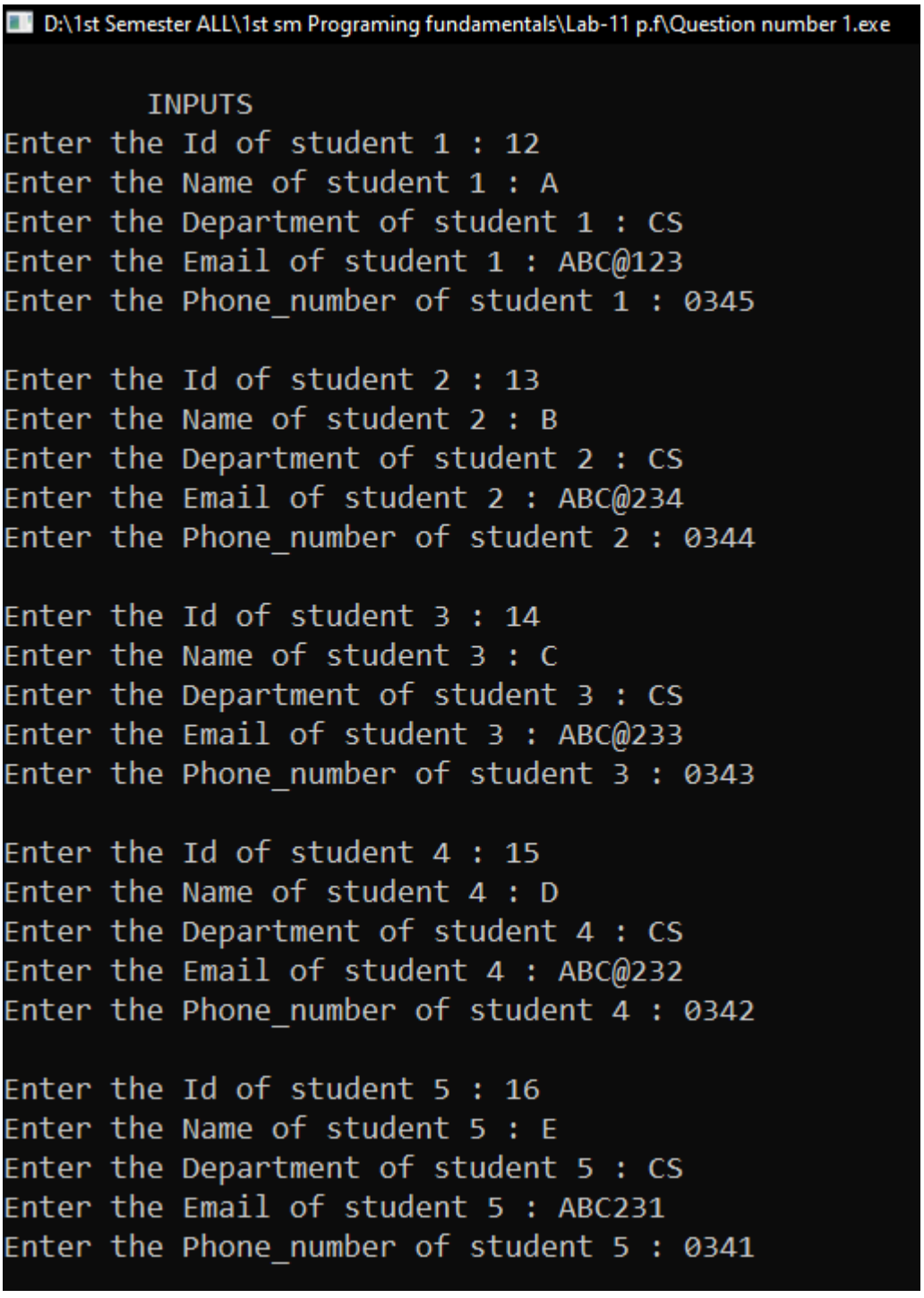
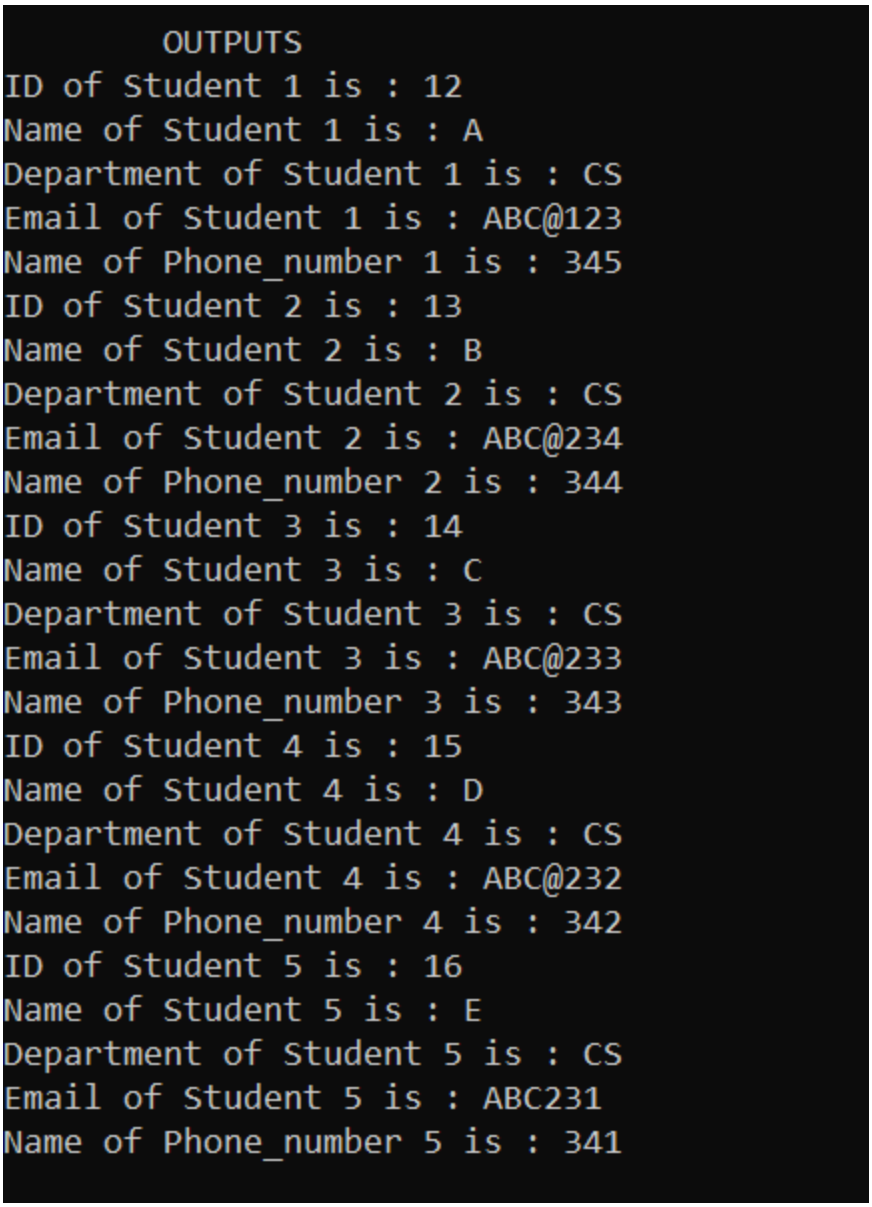
Question number 1

```
#include <iostream>

#include <string>

using namespace std;


        struct S_R{


                int ID,Phone_number;

                string Name,Department,Email;


        };


        int main()

        {

                S_R s[5];

                cout<<"\n\tINPUTS\n";

                for (int i=0 ; i<5 ; i++){


                        cout<<"Enter the Id of student "<<i+1<<" : ";

                        cin>>s[i].ID;

                        cout<<"Enter the Name of student "<<i+1<<" : ";

                        cin>>s[i].Name;

                        cout<<"Enter the Department of student "<<i+1<<" : ";

                        cin>>s[i].Department;

                        cout<<"Enter the Email of student "<<i+1<<" : ";

                        cin>>s[i].Email;

                        cout<<"Enter the Phone_number of student "<<i+1<<" : ";

                        cin>>s[i].Phone_number;
```

```
            cout<<endl;
            cin.ignore();
        }

        cout<<"\n\tOUTPUTS\n";
        for(int i=0 ; i<5 ; i++){

            cout<<"ID of Student "<<i+1<<" is : "<<s[i].ID<<endl;
            cout<<"Name of Student "<<i+1<<" is : "<<s[i].Name<<endl;
            cout<<"Department of Student "<<i+1<<" is : "<<s[i].Department<<endl;
            cout<<"Email of Student "<<i+1<<" is : "<<s[i].Email<<endl;
            cout<<"Name of Phone_number "<<i+1<<" is : "<<s[i].Phone_number<<endl;
        }

return 0;
}
```


D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 1.exe
INPUTS
Enter the Id of student 1 : 12
Enter the Name of student 1 : A
Enter the Department of student 1 : CS
Enter the Email of student 1 : ABC@123
Enter the Phone_number of student 1 : 0345
Enter the Id of student 2 : 13
Enter the Name of student 2 : B
Enter the Department of student 2 : CS
Enter the Email of student 2 : ABC@234
Enter the Phone_number of student 2 : 0344
Enter the Id of student 3 : 14
Enter the Name of student 3 : C
Enter the Department of student 3 : CS
Enter the Email of student 3 : ABC@233
Enter the Phone_number of student 3 : 0343
Enter the Id of student 4 : 15
Enter the Name of student 4 : D
Enter the Department of student 4 : CS
Enter the Email of student 4 : ABC@232
Enter the Phone_number of student 4 : 0342
Enter the Id of student 5 : 16
Enter the Name of student 5 : E
Enter the Department of student 5 : CS
Enter the Email of student 5 : ABC231
Enter the Phone_number of student 5 : 0341

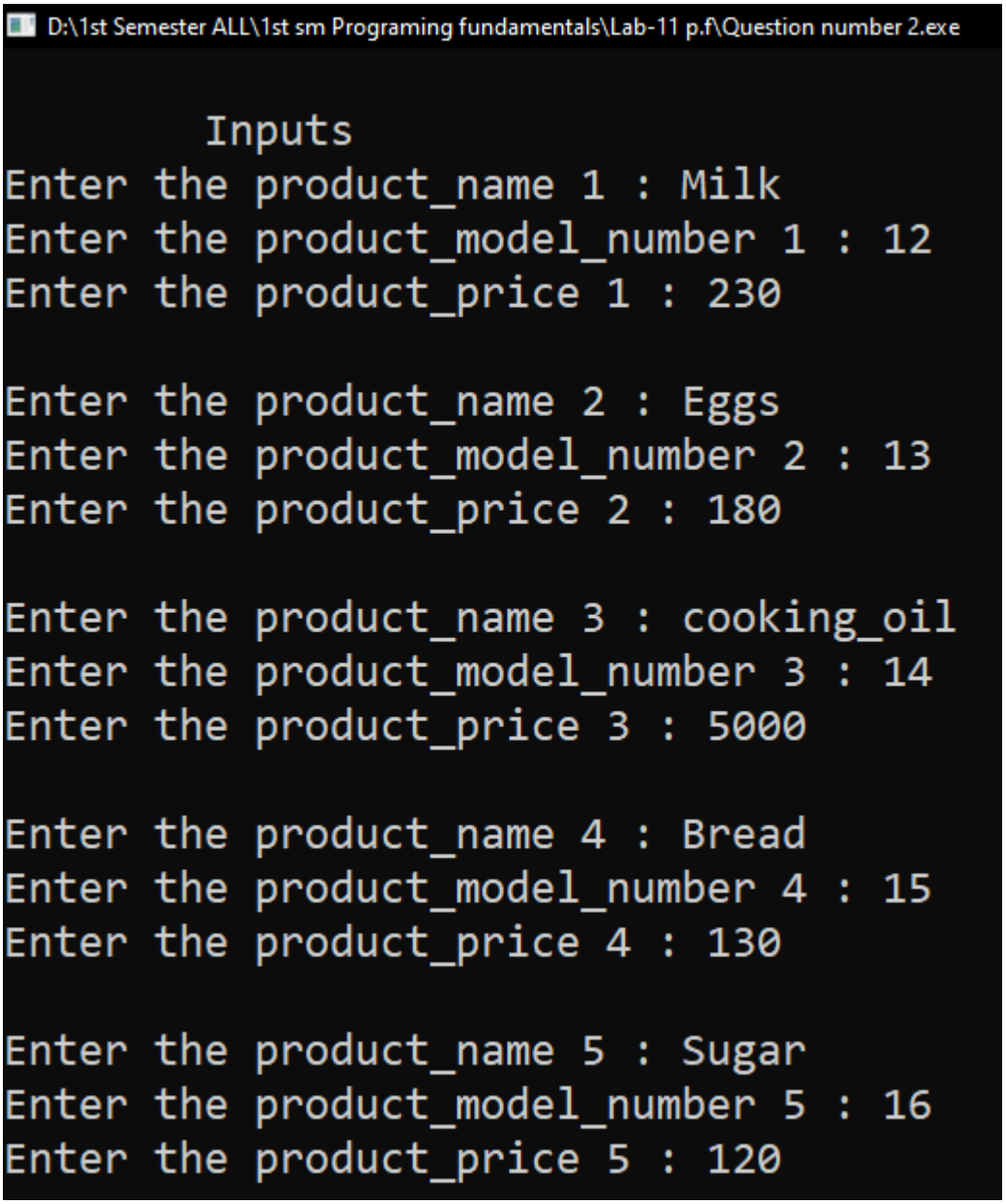


Question number 2

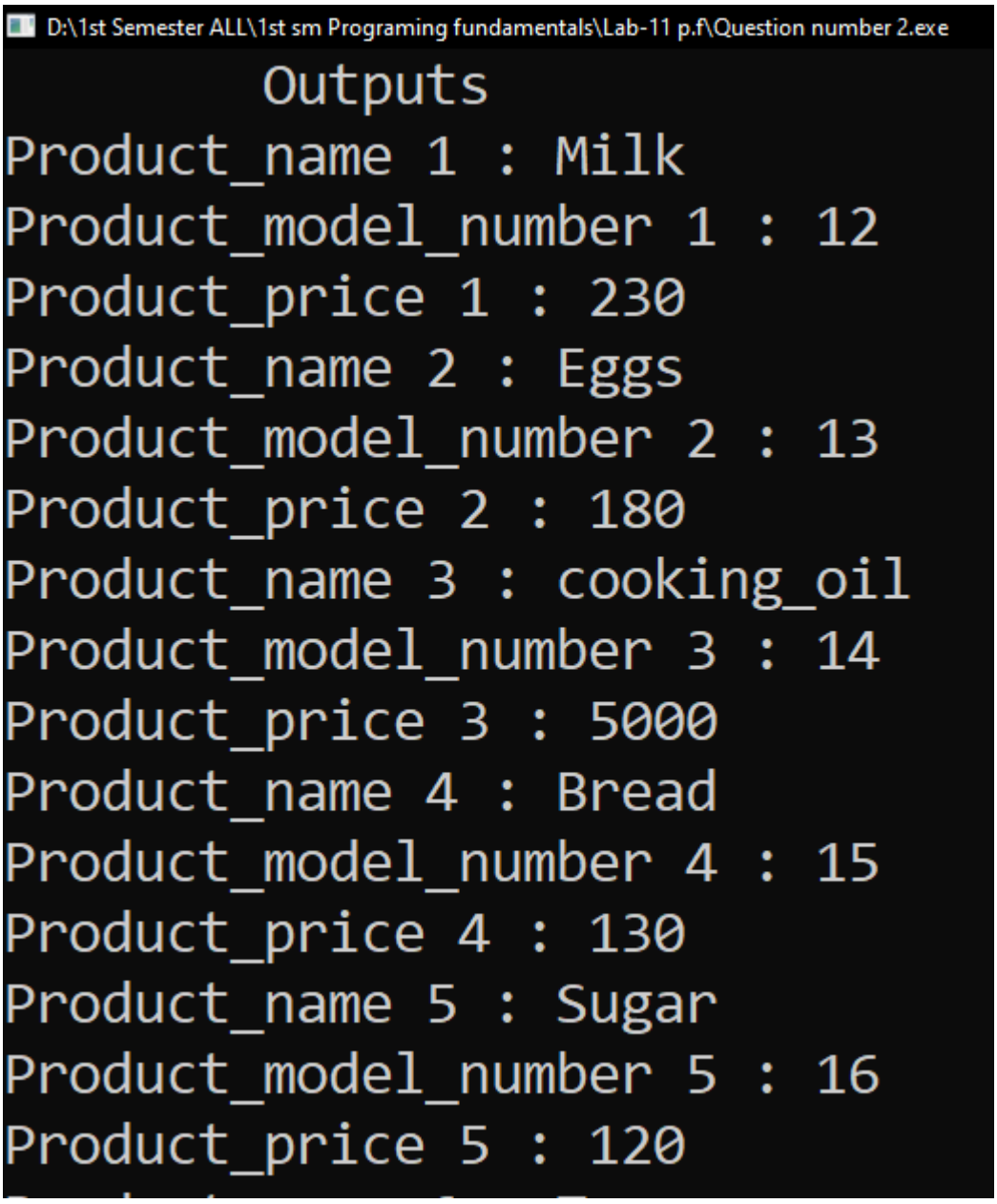
```
#include <iostream>

using namespace std;

        struct Product_rec{


                string product_name;

                int product_model_number;

                double product_price;
```

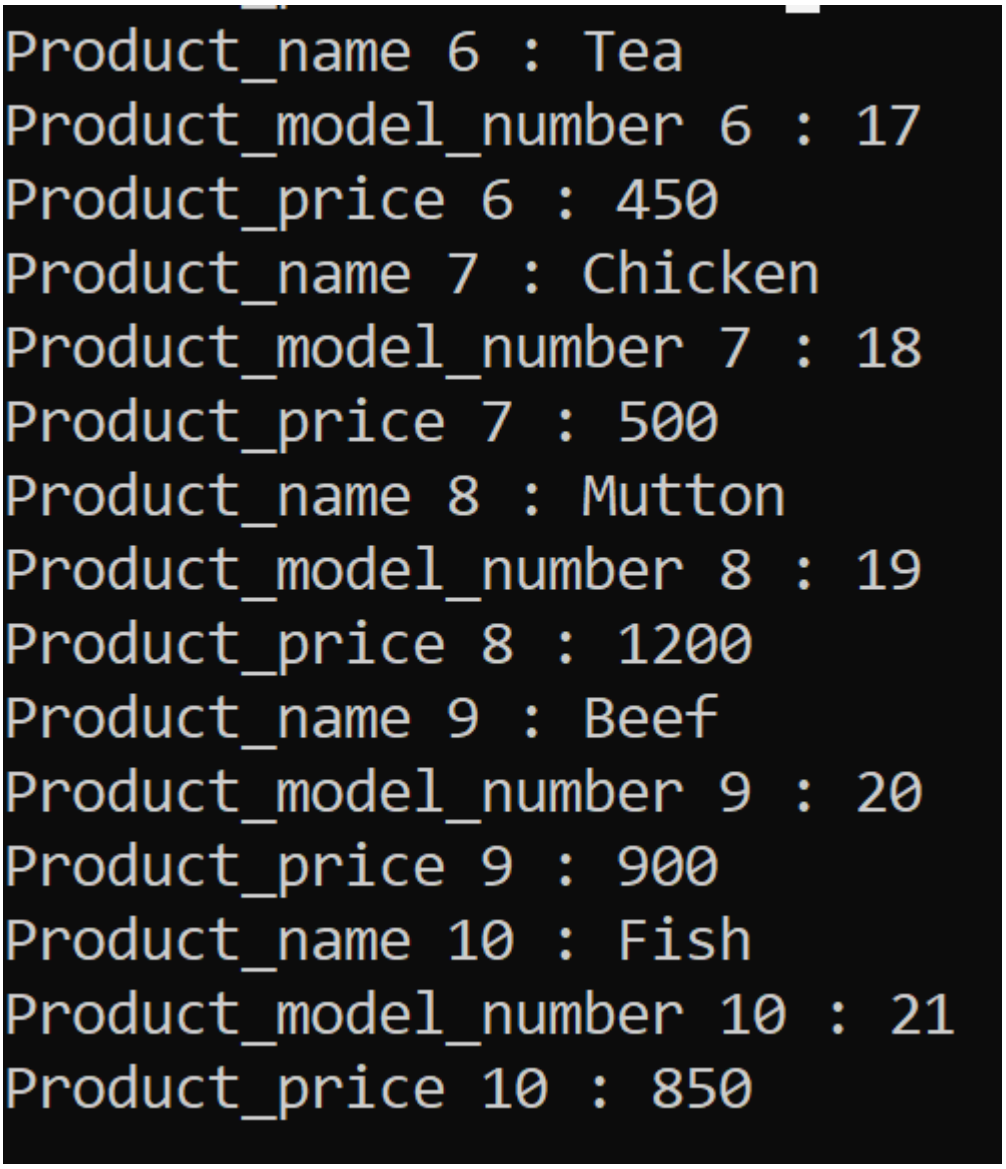
```
};

void product_output (Product_rec []);

int main()
{
	Product_rec pro[10];
	cout<<"\n\tInputs\n";

	for(int i=0 ; i<10 ; i++){
		cout<<"Enter the product_name "<<i+1<<" : ";
		cin>>pro[i].product_name;
		cout<<"Enter the product_model_number "<<i+1<<" : ";
		cin>>pro[i].product_model_number;
		cout<<"Enter the product_price "<<i+1<<" : ";
		cin>>pro[i].product_price;
		cout<<endl;
	}

	product_output(pro);

	return 0;
}

void product_output (Product_rec pro[]){

	cout<<"\n\tOutputs\n";

	for(int i=0 ; i<10 ; i++){
```

```
                cout<<"Product_name "<<i+1<<" : "<<pro[i].product_name<<endl;

                cout<<"Product_model_number "<<i+1<<" :
"<<pro[i].product_model_number<<endl;

                cout<<"Product_price "<<i+1<<" : "<<pro[i].product_price<<endl;

        }


    }
```



```
Enter the product_name 6 : Tea
Enter the product_model_number 6 : 17
Enter the product_price 6 : 450

Enter the product_name 7 : Chicken
Enter the product_model_number 7 : 18
Enter the product_price 7 : 500

Enter the product_name 8 : Mutton
Enter the product_model_number 8 : 19
Enter the product_price 8 : 1200

Enter the product_name 9 : Beef
Enter the product_model_number 9 : 20
Enter the product_price 9 : 900

Enter the product_name 10 : Fish
Enter the product_model_number 10 : 21
Enter the product_price 10 : 850
```


D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 2.exe
Outputs
Product_name 1 : Milk
Product_model_number 1 : 12
Product_price 1 : 230
Product_name 2 : Eggs
Product_model_number 2 : 13
Product_price 2 : 180
Product_name 3 : cooking_oil
Product_model_number 3 : 14
Product_price 3 : 5000
Product_name 4 : Bread
Product_model_number 4 : 15
Product_price 4 : 130
Product_name 5 : Sugar
Product_model_number 5 : 16
Product_price 5 : 120

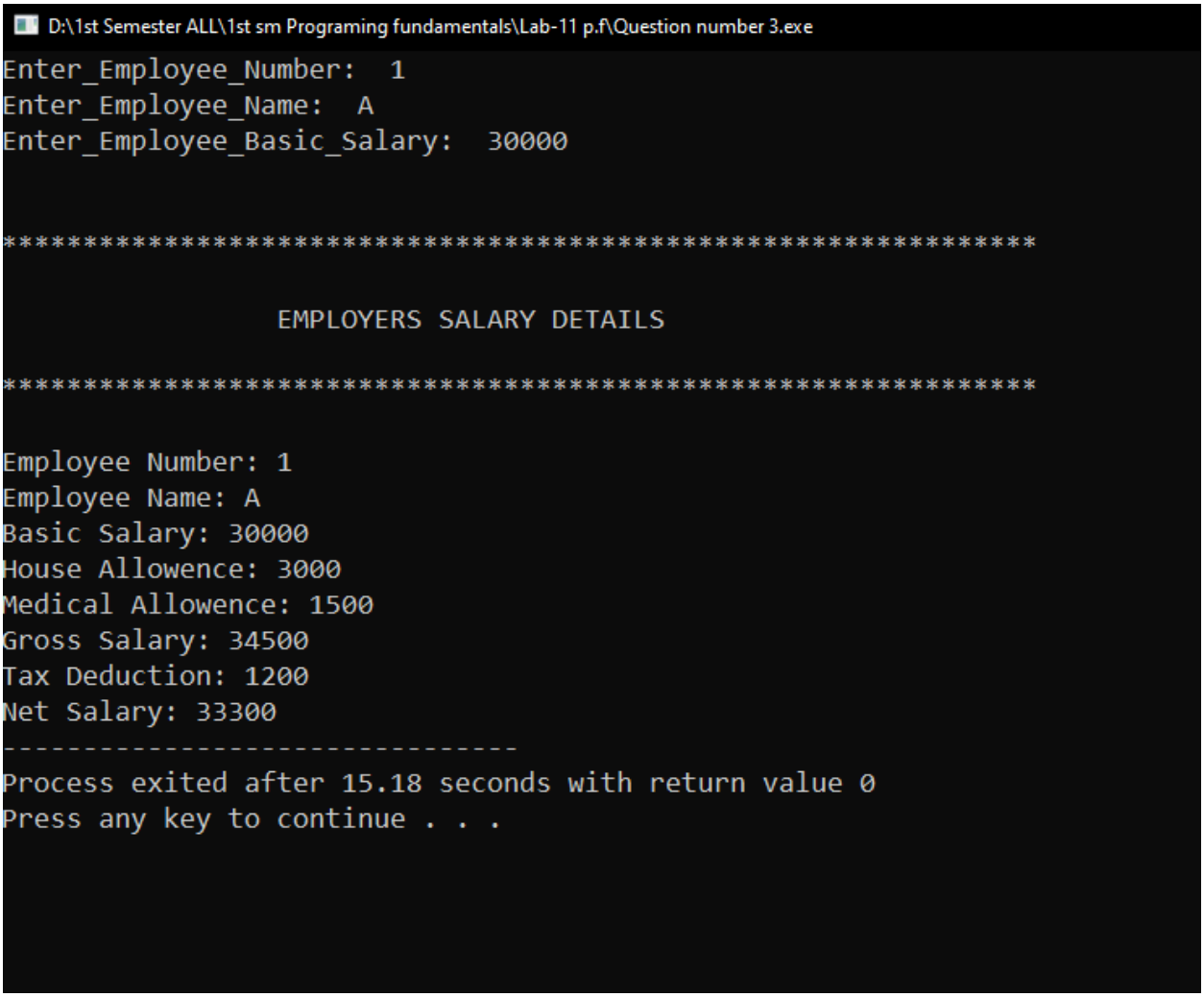


Question number 3

```
#include <iostream>

#include <string>

using namespace std;

	struct Employee {

		int Employee_Number;

		string Employee_Name;

		double Employee_Basic_Salary;
```

```
        double Employee_House_Allowance;
        double Employee_Medical_Allowance;
        double Employee_Tax;
        double Employee_Gross_Pay;
        double Employee_Net_Salary;
};

Employee empSalary(Employee);
void dispaly (Employee);

int main(){
        Employee eP , eP_All_Details;

        cout<<"Enter_Employee_Number:  ";
        cin>>eP.Employee_Number;
        cout<<"Enter_Employee_Name:  ";
        cin>>eP.Employee_Name;
        cout<<"Enter_Employee_Basic_Salary:  ";
        cin>>eP.Employee_Basic_Salary;
        eP_All_Details=empSalary(eP);
        dispaly (eP_All_Details);

        return 0;
}

Employee empSalary(Employee eP){
        eP.Employee_House_Allowance=(eP.Employee_Basic_Salary*10)/100;
        eP.Employee_Medical_Allowance=(eP.Employee_Basic_Salary*5)/100;
        eP.Employee_Tax=(eP.Employee_Basic_Salary*4)/100;
```

```
	eP.Employee_Gross_Pay=eP.Employee_Basic_Salary+eP.Employee_House_Allowance+eP.Employee_Medical_Allowance;
		eP.Employee_Net_Salary=eP.Employee_Gross_Pay-eP.Employee_Tax;
		return eP;
	}

	void dispaly (Employee eP_All_Details){

	cout<<endl<<endl<<"*****************************************************************";
		cout<<"\n\n\t\t EMPLOYERS SALARY DETAILS ";

	cout<<endl<<endl<<"*****************************************************************";
		cout<<endl<<endl<<"Employee Number: "<<eP_All_Details.Employee_Number;
		cout<<endl<<"Employee Name: "<<eP_All_Details.Employee_Name;
		cout<<endl<<"Basic Salary: "<<eP_All_Details.Employee_Basic_Salary;
		cout<<endl<<"House Allowence: "<<eP_All_Details.Employee_House_Allowance;
		cout<<endl<<"Medical Allowence: "<<eP_All_Details.Employee_Medical_Allowance;
		cout<<endl<<"Gross Salary: "<<eP_All_Details.Employee_Gross_Pay;
		cout<<endl<<"Tax Deduction: "<<eP_All_Details.Employee_Tax;
		cout<<endl<<"Net Salary: "<<eP_All_Details.Employee_Net_Salary;

	}
```

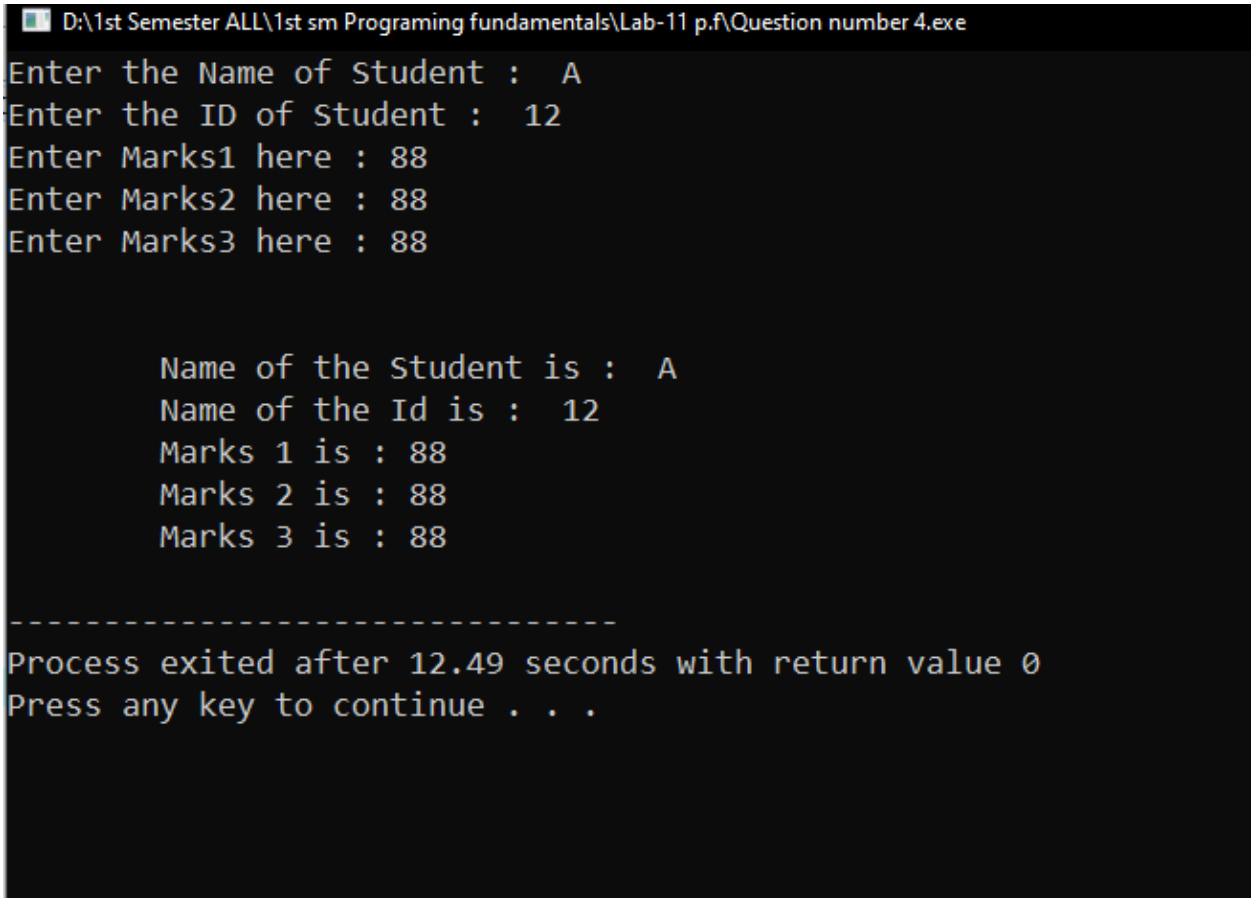


Question number 4

```
#include <iostream>

#include <string>

using namespace std;


	struct Student {

		string name;

		int id;

		int mark[3];

	};
```

```
void inputStudent(Student* ptr);
void OutputStudent(Student*ptr);

int main () {
	Student stu;
	Student* stuPtr = &stu;
	inputStudent(&stu);
	OutputStudent(stuPtr);
}

void inputStudent(Student* ptr){
	cout<<"Enter the Name of Student :  ";
	cin>>ptr->name;
	cout<<"Enter the ID of Student :  ";
	cin>>ptr->id;

	for(int i=0 ; i<3 ; i++){
		cout<<"Enter Marks"<<i+1<<" here : ";
		cin>>ptr->mark[i];
	}
}

void OutputStudent(Student* ptr){
	cout<<endl<<endl;
	cout<<"\tName of the Student is :  "<<ptr->name;
	cout<<endl;
	cout<<"\tName of the Id is :  "<<ptr->id;
	cout<<endl;
```

```
        for(int i=0 ; i<3 ; i++){
                cout<<"\tMarks "<<i+1<<" is : "<<ptr->mark[i]<<endl;
        }
    }
```

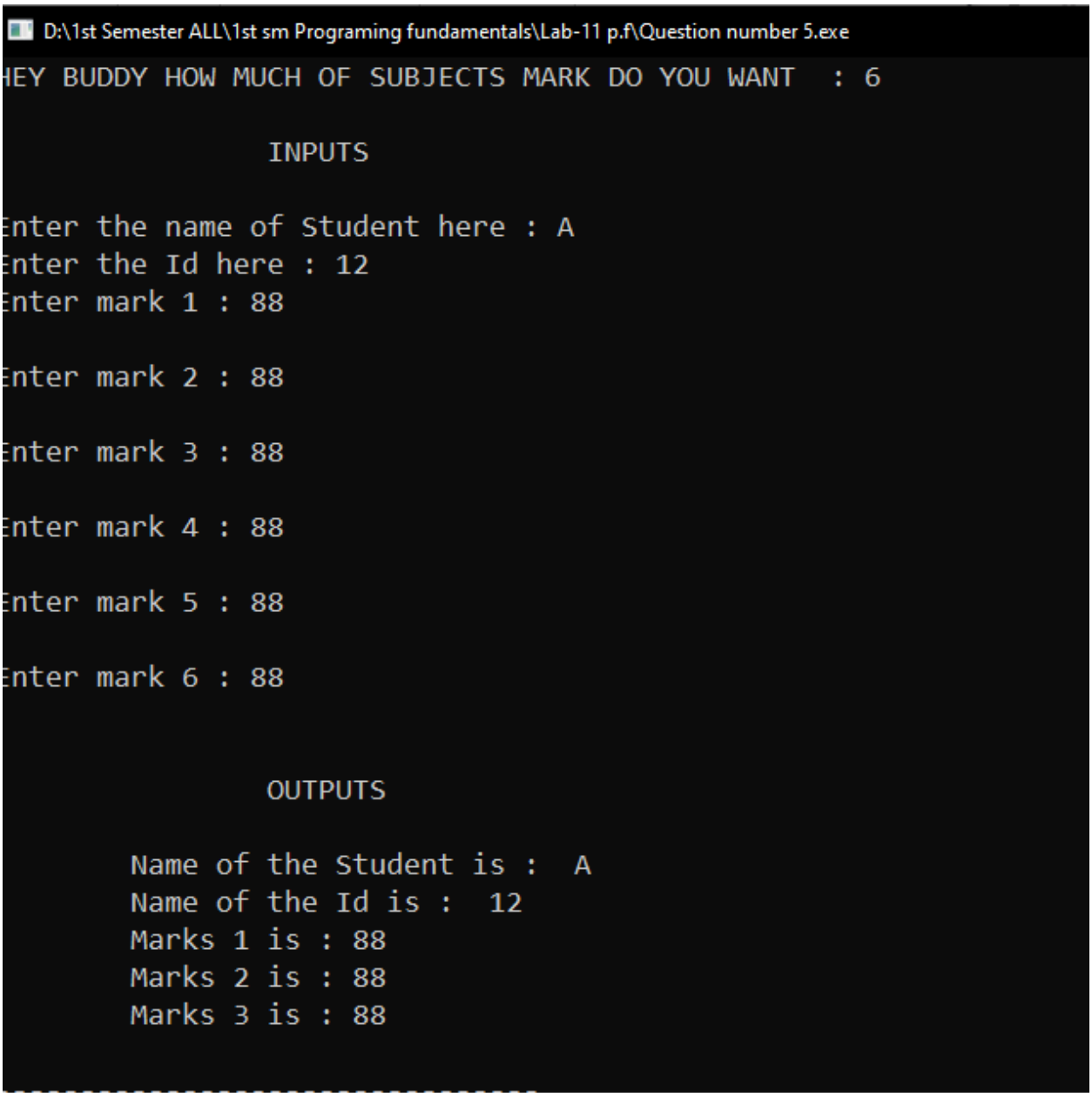


Question number 5

```
#include <iostream>
#include <string>
using namespace std;

    struct Student {
        string name;
        int id;
        int *mark;
```

```
};

void inputStudent(Student* ptr,int);
void OutputStudent(Student*ptr,int);

int main () {
	int num_marks;
	cout<<"HEY BUDDY HOW MUCH OF SUBJECTS MARK DO YOU WANT  : ";
	cin>>num_marks;

	Student stu;
	Student* stuPtr = &stu;
	inputStudent(&stu,num_marks);
	OutputStudent(stuPtr,num_marks);
	return 0;
}

void inputStudent(Student* ptr,int num_marks){
	cout<<"\n\t\tINPUTS\n\n";
	cout<<"Enter the name of Student here : ";
	cin.ignore();
	getline(cin, ptr->name);
	cout<<"Enter the Id here : ";
	cin>>ptr->id;

	ptr->mark = new int[num_marks];
	for(int i=0; i<num_marks; i++)
	{
	 cout<<"Enter mark "<<i+1<<" : ";
```

```
            cin>>ptr->mark[i];
            cout<<endl;
           }
}

void OutputStudent(Student*ptr,int){
           cout<<"\n\t\tOUTPUTS\n\n";
           cout<<"\tName of the Student is :  "<<ptr->name;
           cout<<endl;
           cout<<"\tName of the Id is :  "<<ptr->id;
           cout<<endl;

           for(int i=0 ; i<3 ; i++){
                      cout<<"\tMarks "<<i+1<<" is : "<<ptr->mark[i]<<endl;
           }
}
```


D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 5.exe
HEY BUDDY HOW MUCH OF SUBJECTS MARK DO YOU WANT : 6
INPUTS
Enter the name of Student here : A
Enter the Id here : 12
Enter mark 1 : 88
Enter mark 2 : 88
Enter mark 3 : 88
Enter mark 4 : 88
Enter mark 5 : 88
Enter mark 6 : 88
OUTPUTS
Name of the Student is : A
Name of the Id is : 12
Marks 1 is : 88
Marks 2 is : 88
Marks 3 is : 88