Task 1: Control Flow Statements

1. Write a program that checks whether a given order is delivered or not based on its status (e.g., "Processing," "Delivered," "Cancelled"). Use if-else statements for this.

2. Implement a switch-case statement to categorize parcels based on their weight into "Light," "Medium," or "Heavy."

3. Implement User Authentication 1. Create a login system for employees and customers using C# control flow statements.

4. Implement Courier Assignment Logic 1. Develop a mechanism to assign couriers to shipments based on predefined criteria (e.g., proximity, load capacity) using loops.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Runtime.InteropServices.WindowsRuntime;
using System.Text;
using System.Threading.Tasks;

namespace TaskOne
{
    internal class Program
    {
        static void Main(string[] args)
        {

            while (true) {

                Console.WriteLine("\nCourier Management System\n");
                Console.WriteLine("1.Check Order Status");
                Console.WriteLine("2.Categorize Parcel ny Weight");
                Console.WriteLine("3.User Authentication");
                Console.WriteLine("4.Employee Authentication");
                Console.WriteLine("5.Assign Courier to Shipment");
```

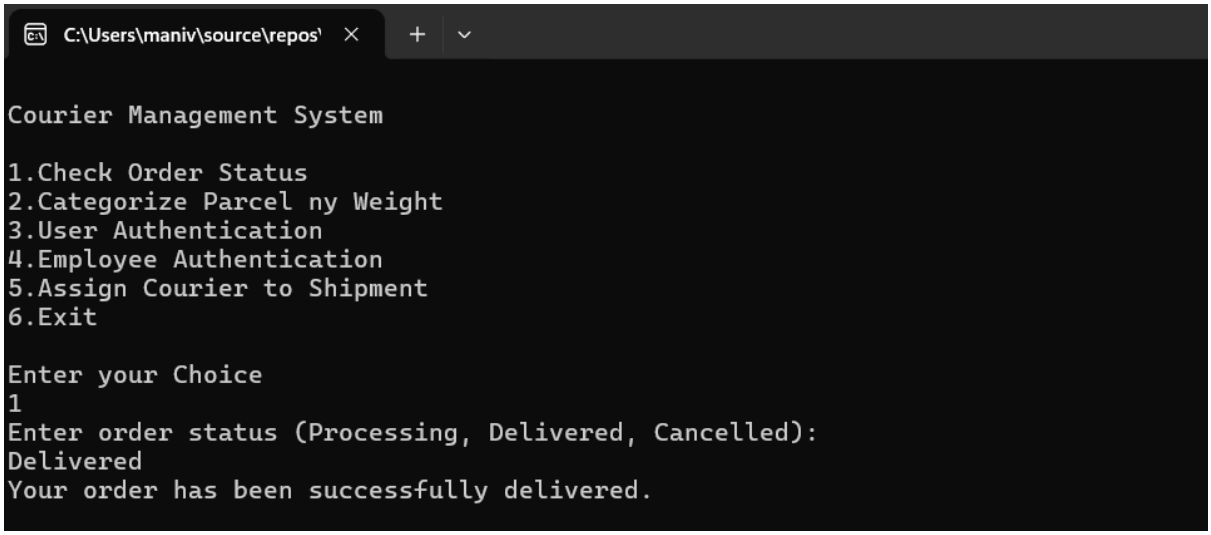
```
        Console.WriteLine("6.Exit");

        Console.WriteLine("\nEnter your Choice");
        int choice = int.Parse(Console.ReadLine());
        switch (choice)
        {
            case 1: CheckOrderStatus();
                    break;
            case 2: CategorizeParcel();
                    break;
            case 3: UserAuthentication();
                    break;
            case 4:EmployeeAuthentication();
                   break;
            case 5:AssignCourier();
                   break;
            case 6: return;

            default: Console.WriteLine("Invalid Choice");
                     break;
        }
    }
}

static void CheckOrderStatus()
{

    Console.WriteLine("Enter order status (Processing, Delivered, Cancelled): ");
    string status = Console.ReadLine();

    if (status.Equals("Delivered", StringComparison.OrdinalIgnoreCase))
    {
```

```
        Console.WriteLine("Your order has been successfully delivered.");
    }
    else if (status.Equals("Processing", StringComparison.OrdinalIgnoreCase))
    {
        Console.WriteLine("Your order is still being processed.");
    }
    else if (status.Equals("Cancelled", StringComparison.OrdinalIgnoreCase))
    {
        Console.WriteLine("Your order has been cancelled.");
    }
    else
    {
        Console.WriteLine("Invalid status");
    }
}

static void CategorizeParcel()
{
    Console.WriteLine("enter weight of parcel in kg");
    double weight = int.Parse(Console.ReadLine());

    String category;

    if (weight < 1)
    {
        category = "Light";
    }
    else if (weight <= 5)
    {
        category = "Medium";
    }
```

```
    else
    {
        category = "Heavy";
    }
    Console.WriteLine($"The parcel is {category}");
}

static void UserAuthentication()
{
    Console.WriteLine("Enter username: ");
    string username = Console.ReadLine();

    Console.WriteLine("Enter password: ");
    string password = Console.ReadLine();

    if (username == "User001" && password == "pass123")
    {
        Console.WriteLine("Login Successful!");
    }
    else
    {
        Console.WriteLine("Invalid Username or Password.");
    }
}

static void EmployeeAuthentication()
{

    Console.WriteLine("Enter username: ");
    string username = Console.ReadLine();

    Console.WriteLine("Enter password: ");
```

```
    string password = Console.ReadLine();

    if (username == "employee001" && password == "pass123")
    {
        Console.WriteLine("Login Successful!");
    }
    else
    {
        Console.WriteLine("invalid Employee username or Password.");
    }
}

static void AssignCourier()
{
    string[] couriers = { "Courier A", "Courier B", "Courier C" };
    int[] capacities = { 5, 10, 15 };

    Console.WriteLine("Enter number of parcels to assign: ");
    int parcels = int.Parse(Console.ReadLine());


    for (int i = 0; i < couriers.Length; i++)
    {
        if (parcels <= capacities[i])
        {
            Console.WriteLine($"Assigned {parcels} parcels to {couriers[i]}.");
            return;
        }
    }

    Console.WriteLine("No suitable courier available for the given load.");
}}}
```

Output: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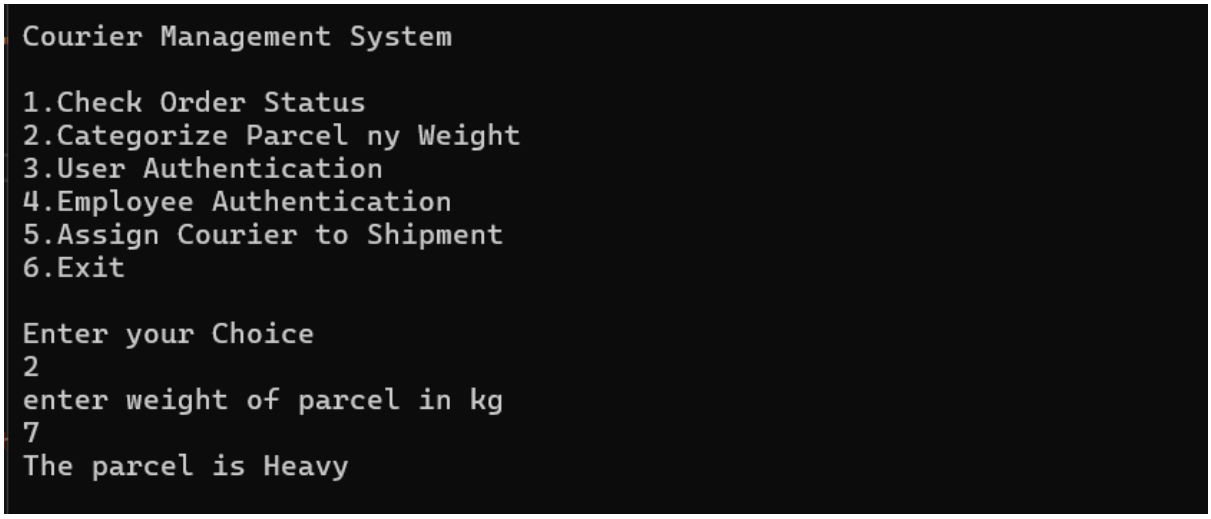
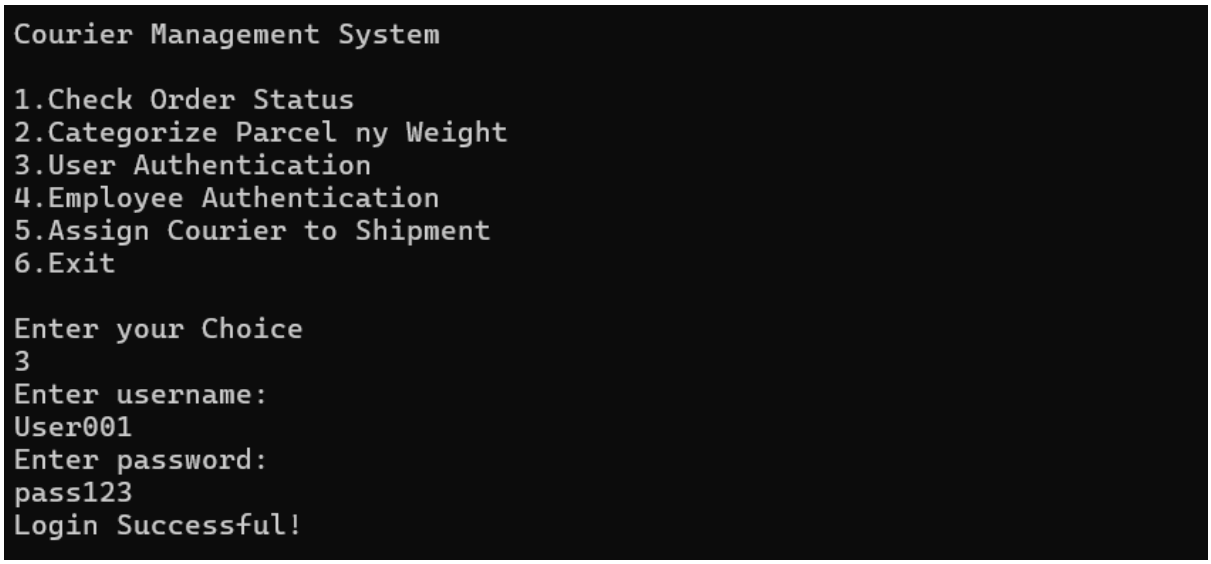
Courier Management System
1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit
Enter your Choice
1
Enter order status (Processing, Delivered, Cancelled):
Delivered
Your order has been successfully delivered.


Courier Management System
1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit
Enter your Choice
2
enter weight of parcel in kg
7
The parcel is Heavy


Courier Management System
1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit
Enter your Choice
3
Enter username:
User001
Enter password:
pass123
Login Successful!

```
Courier Management System

1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit

Enter your Choice
4
Enter username:
employee001
Enter password:
pass123
Login Successful!
```

```
Courier Management System

1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit

Enter your Choice
5
Enter number of parcels to assign:
12
Assigned 12 parcels to Courier C.
```

```
Courier Management System

1.Check Order Status
2.Categorize Parcel ny Weight
3.User Authentication
4.Employee Authentication
5.Assign Courier to Shipment
6.Exit

Enter your Choice
7
Invalid Choice
```