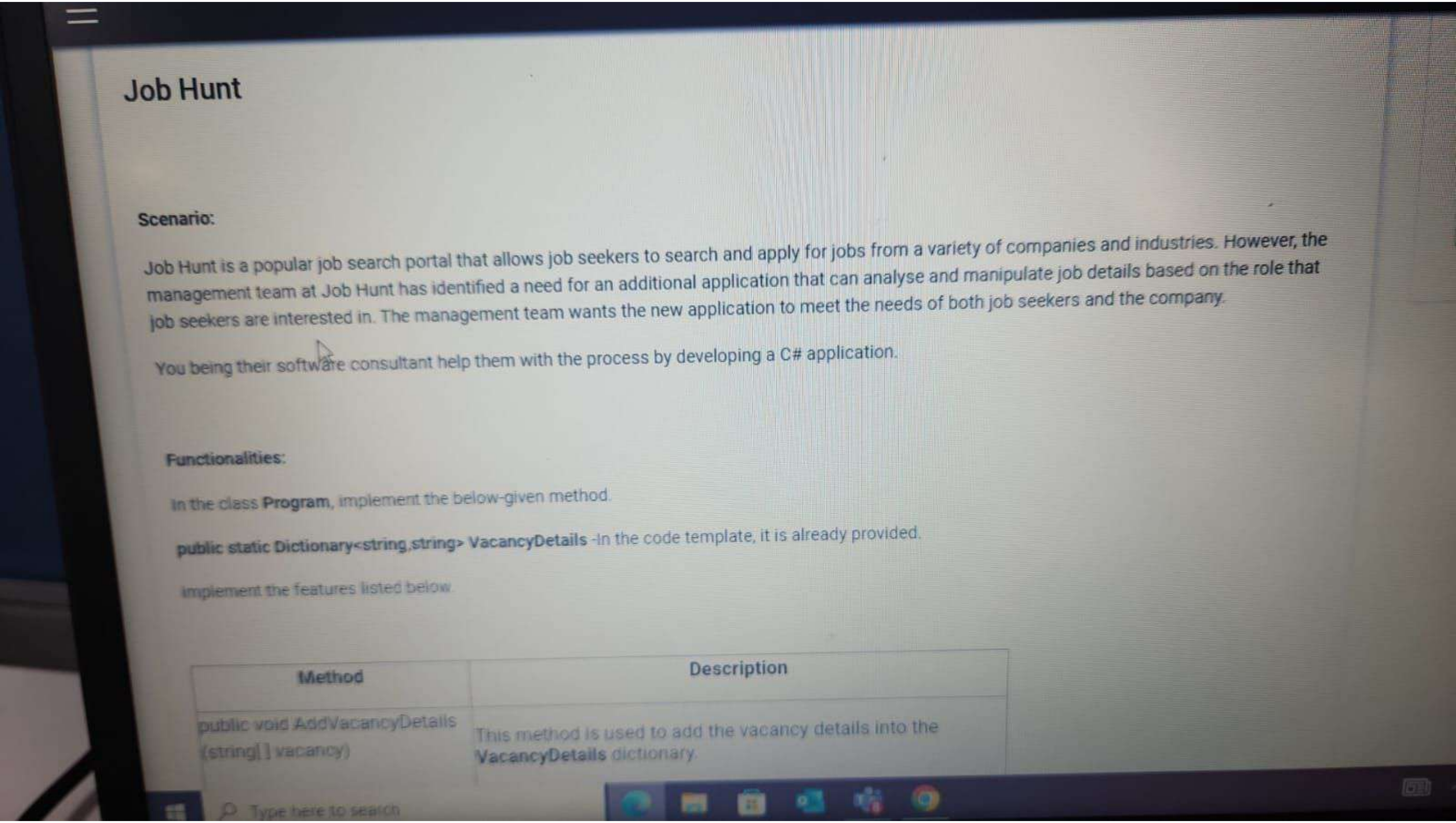


Job Hunt

Scenario:

Job Hunt is a popular job search portal that allows job seekers to search and apply for jobs from a variety of companies and industries. However, the management team at Job Hunt has identified a need for an additional application that can analyse and manipulate job details based on the role that job seekers are interested in. The management team wants the new application to meet the needs of both job seekers and the company.

You being their software consultant help them with the process by developing a C# application.

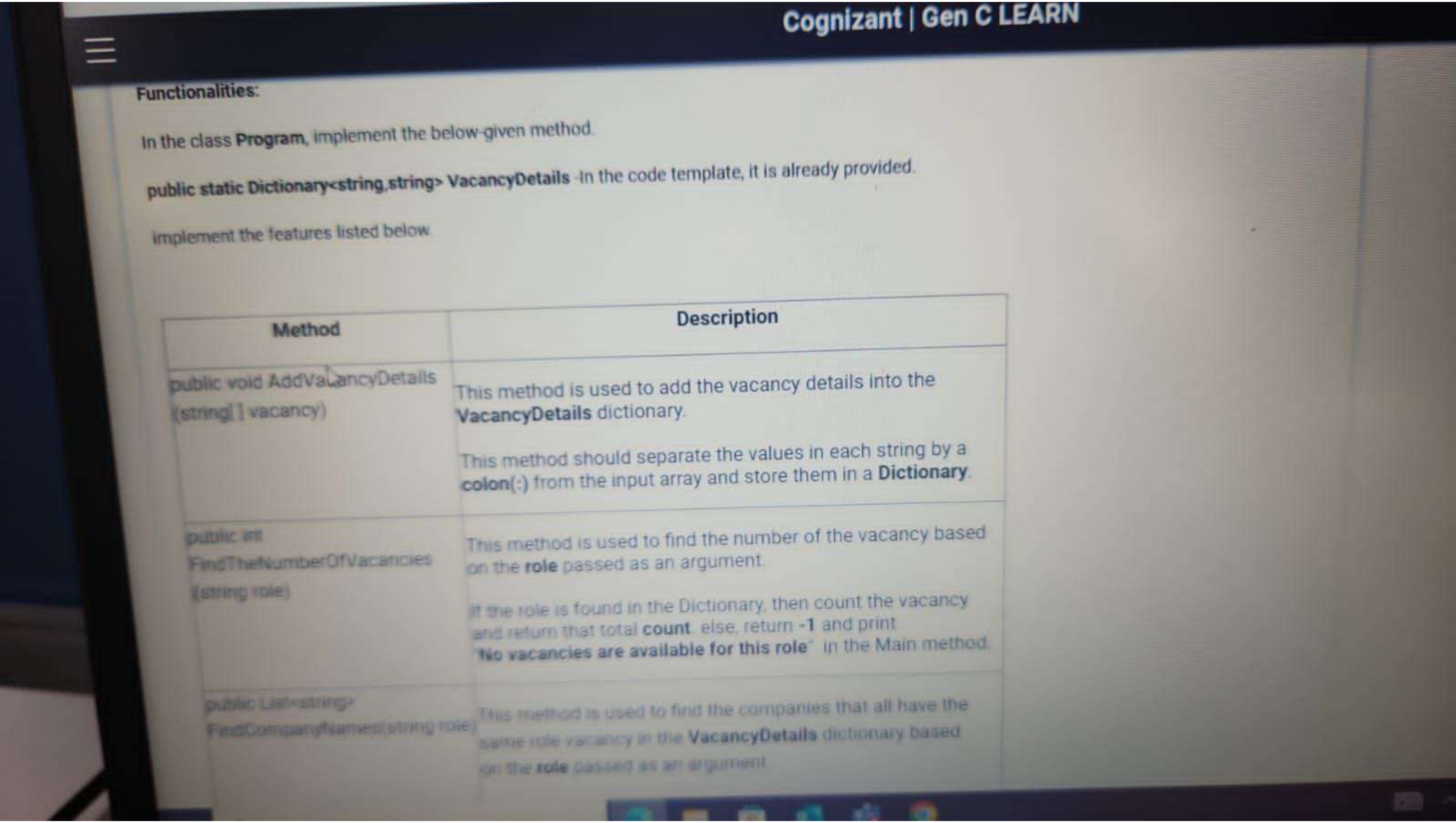
Functionalities:

In the class **Program**, implement the below-given method.

public static Dictionary<string,string> VacancyDetails -In the code template, it is already provided.

Implement the features listed below.

Method	Description
public void AddVacancyDetails (string[] vacancy)	This method is used to add the vacancy details into the **VacancyDetails** dictionary.



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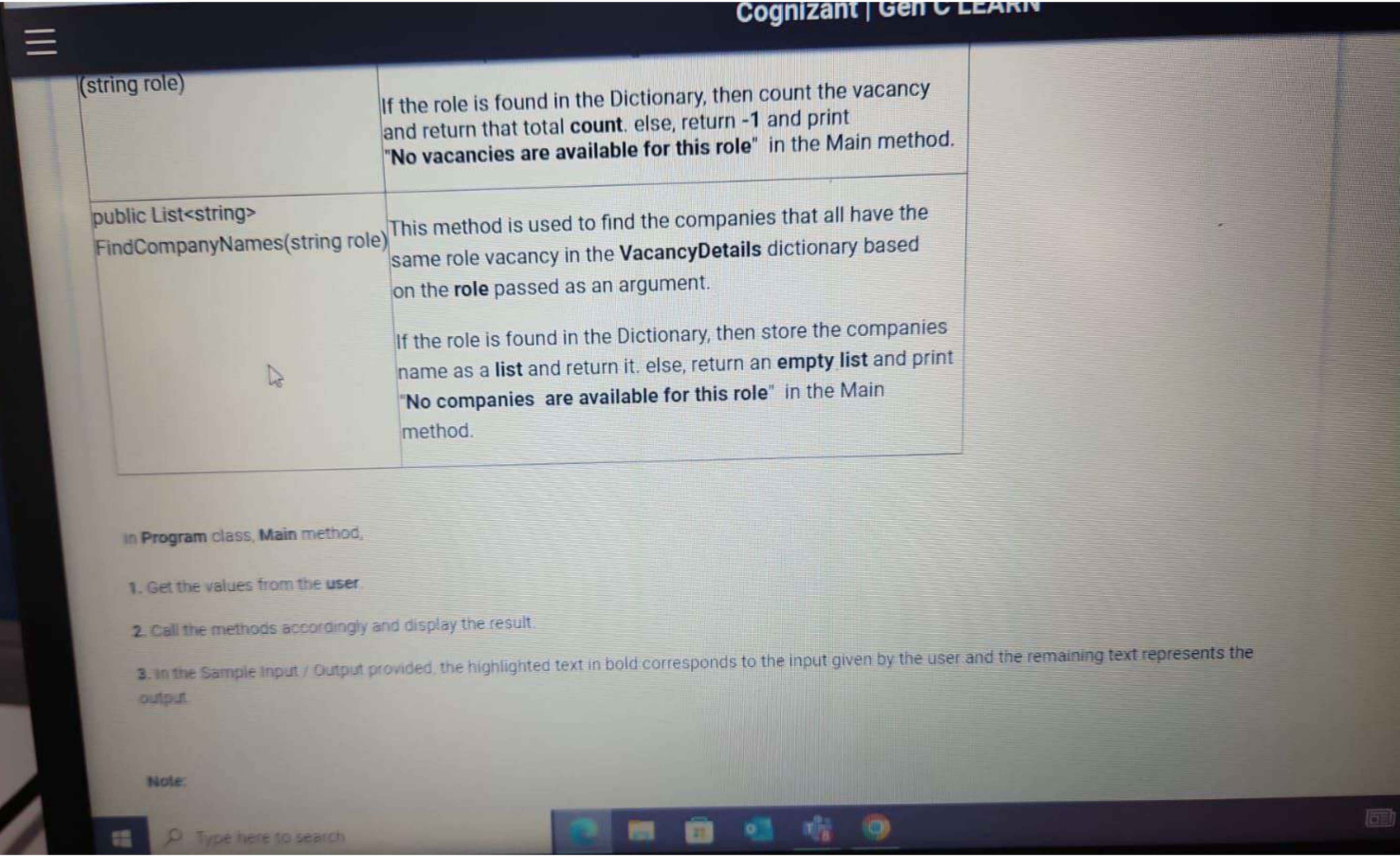
Functionalities:

In the class **Program**, implement the below-given method.

public static Dictionary<string,string> VacancyDetails -In the code template, it is already provided.

implement the features listed below

Method	Description
public void AddVacancyDetails (string[ ] vacancy)	This method is used to add the vacancy details into the **VacancyDetails** dictionary. This method should separate the values in each string by a **colon**(:) from the input array and store them in a **Dictionary**.
public int FindTheNumberOfVacancies (string role)	This method is used to find the number of the vacancy based on the **role** passed as an argument. If the role is found in the Dictionary, then count the vacancy and return that total **count**. else, return **-1** and print "**No vacancies are available for this role**" in the Main method.
public List<string> FindCompanyNames(string role)	This method is used to find the companies that all have the same role vacancy in the **VacancyDetails** dictionary based on the **role** passed as an argument.



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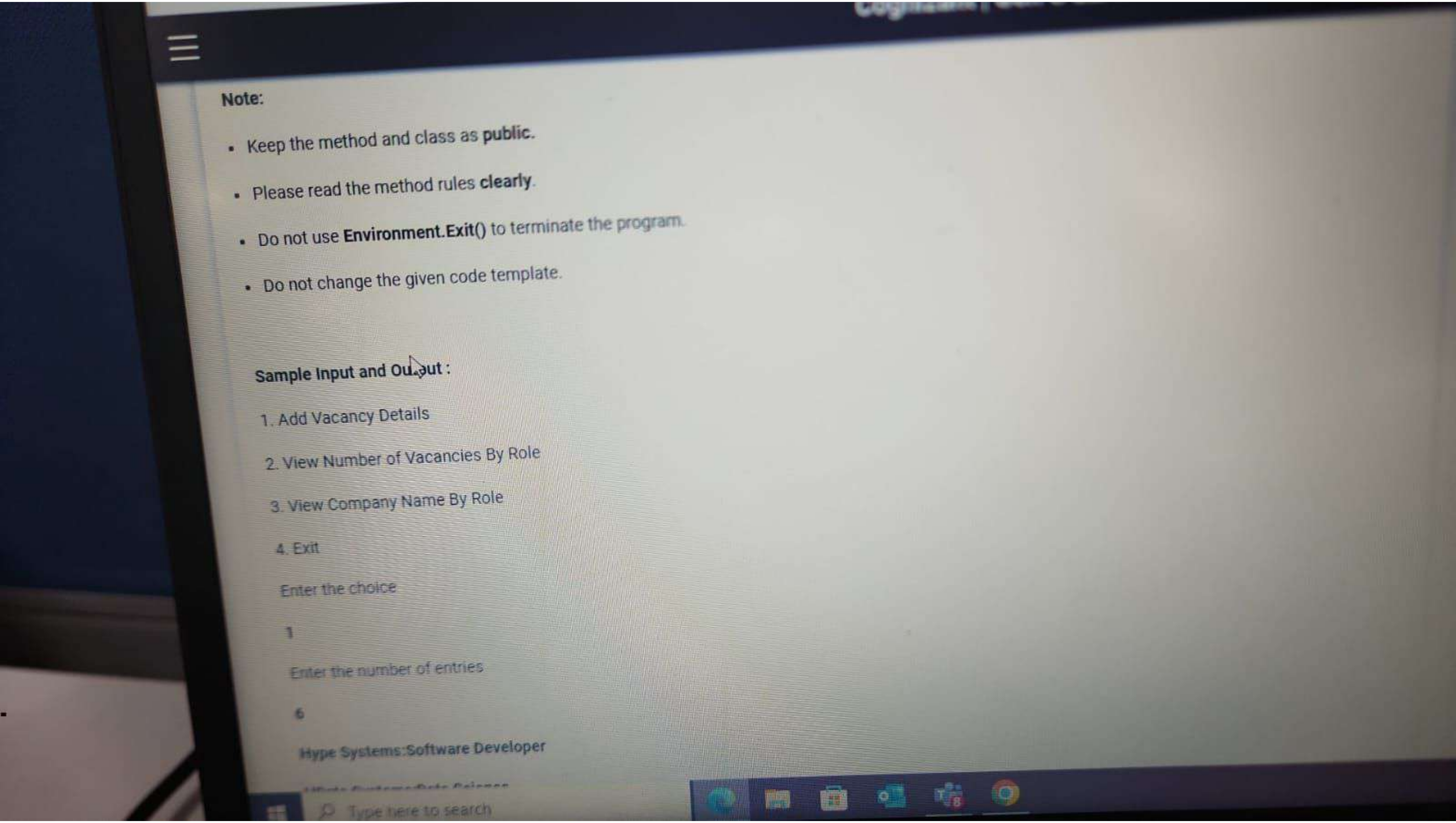
(string role)	If the role is found in the Dictionary, then count the vacancy and return that total **count**. else, return **-1** and print "**No vacancies are available for this role**" in the Main method.
public List<string> FindCompanyNames(string role)	This method is used to find the companies that all have the same role vacancy in the **VacancyDetails** dictionary based on the **role** passed as an argument. If the role is found in the Dictionary, then store the companies name as a **list** and return it. else, return an **empty list** and print "**No companies are available for this role**" in the Main method.

In **Program** class, **Main** method,

1. Get the values from the **user**.
2. Call the methods accordingly and display the result.
3. In the Sample Input / Output provided, the highlighted text in bold corresponds to the input given by the user and the remaining text represents the output.

Note:

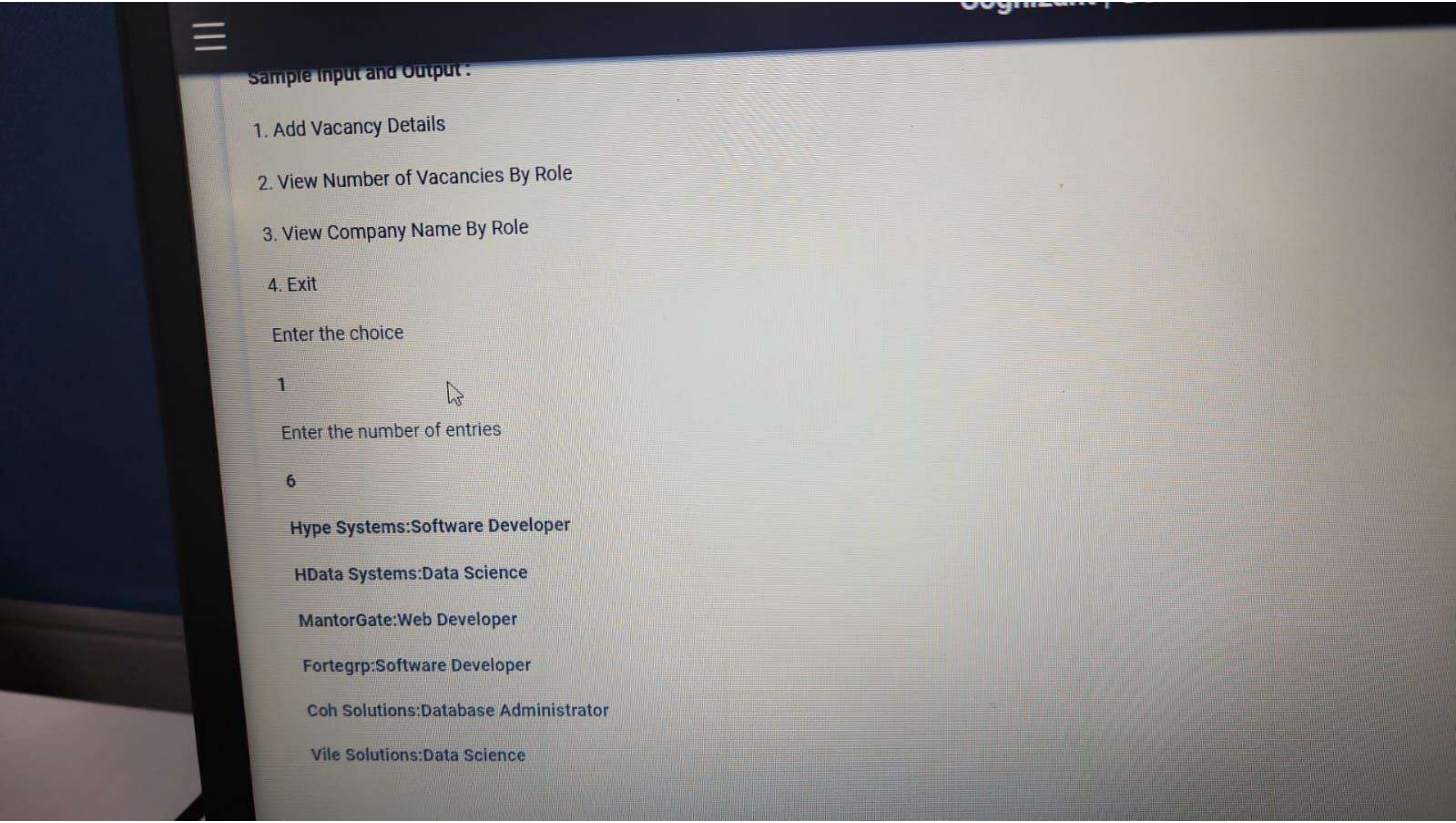


Note:

- Keep the method and class as **public.**
- Please read the method rules **clearly**.
- Do not use **Environment.Exit()** to terminate the program.
- Do not change the given code template.

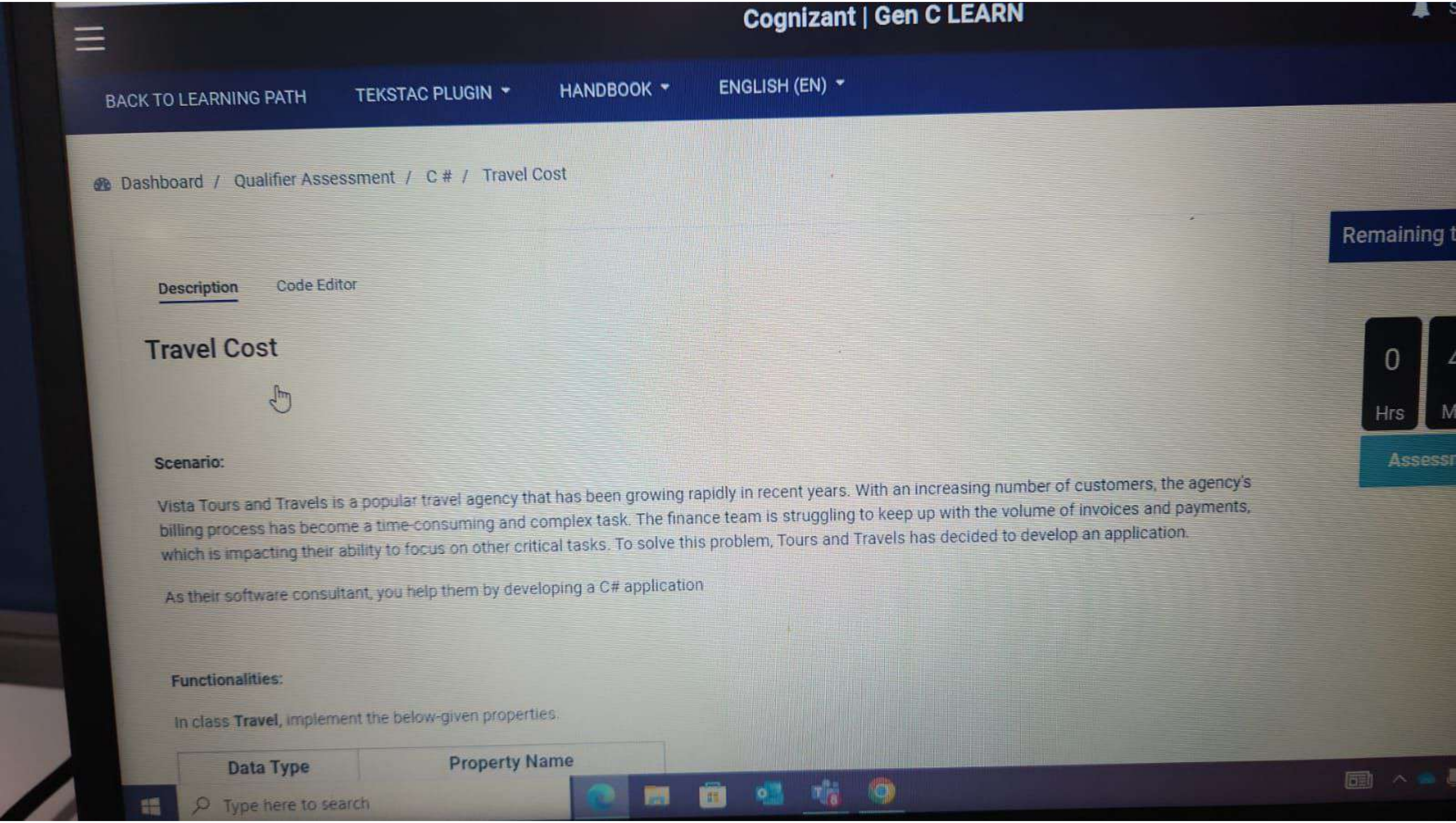
Sample Input and Output :

```
1. Add Vacancy Details
2. View Number of Vacancies By Role
3. View Company Name By Role
4. Exit
Enter the choice
1
Enter the number of entries
6
Hype Systems:Software Developer
```



Sample Input and Output :

```
1. Add Vacancy Details

2. View Number of Vacancies By Role

3. View Company Name By Role

4. Exit

Enter the choice

1

Enter the number of entries

6

Hype Systems:Software Developer

HData Systems:Data Science

MantorGate:Web Developer

Fortegrp:Software Developer

Coh Solutions:Database Administrator

Vile Solutions:Data Science
```



Travel Cost

Scenario:

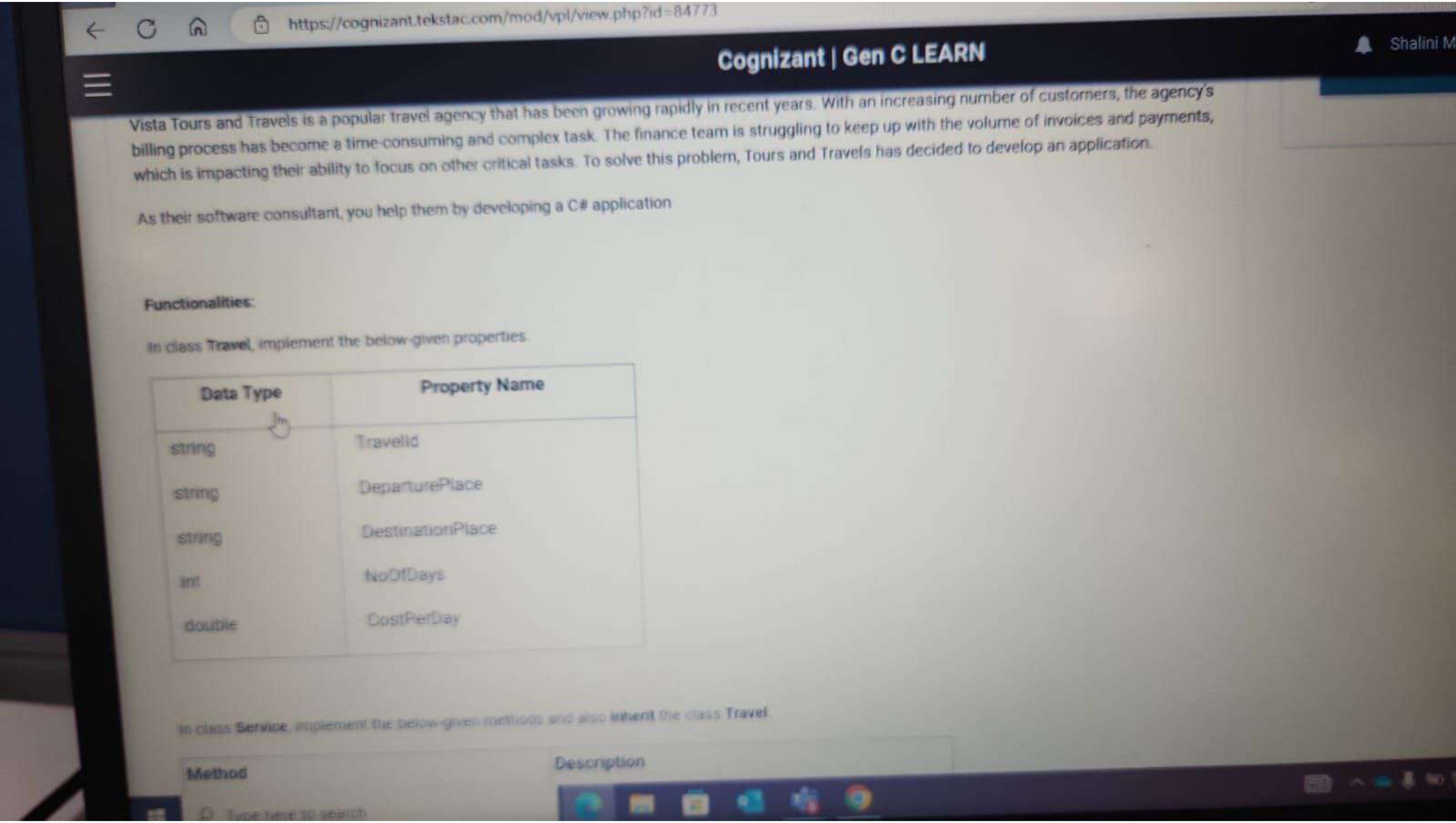
Vista Tours and Travels is a popular travel agency that has been growing rapidly in recent years. With an increasing number of customers, the agency's billing process has become a time-consuming and complex task. The finance team is struggling to keep up with the volume of invoices and payments, which is impacting their ability to focus on other critical tasks. To solve this problem, Tours and Travels has decided to develop an application.

As their software consultant, you help them by developing a C# application

Functionalities:

In class **Travel**, implement the below-given properties.

Data Type	Property Name



Vista Tours and Travels is a popular travel agency that has been growing rapidly in recent years. With an increasing number of customers, the agency's billing process has become a time-consuming and complex task. The finance team is struggling to keep up with the volume of invoices and payments, which is impacting their ability to focus on other critical tasks. To solve this problem, Tours and Travels has decided to develop an application.

As their software consultant, you help them by developing a C# application

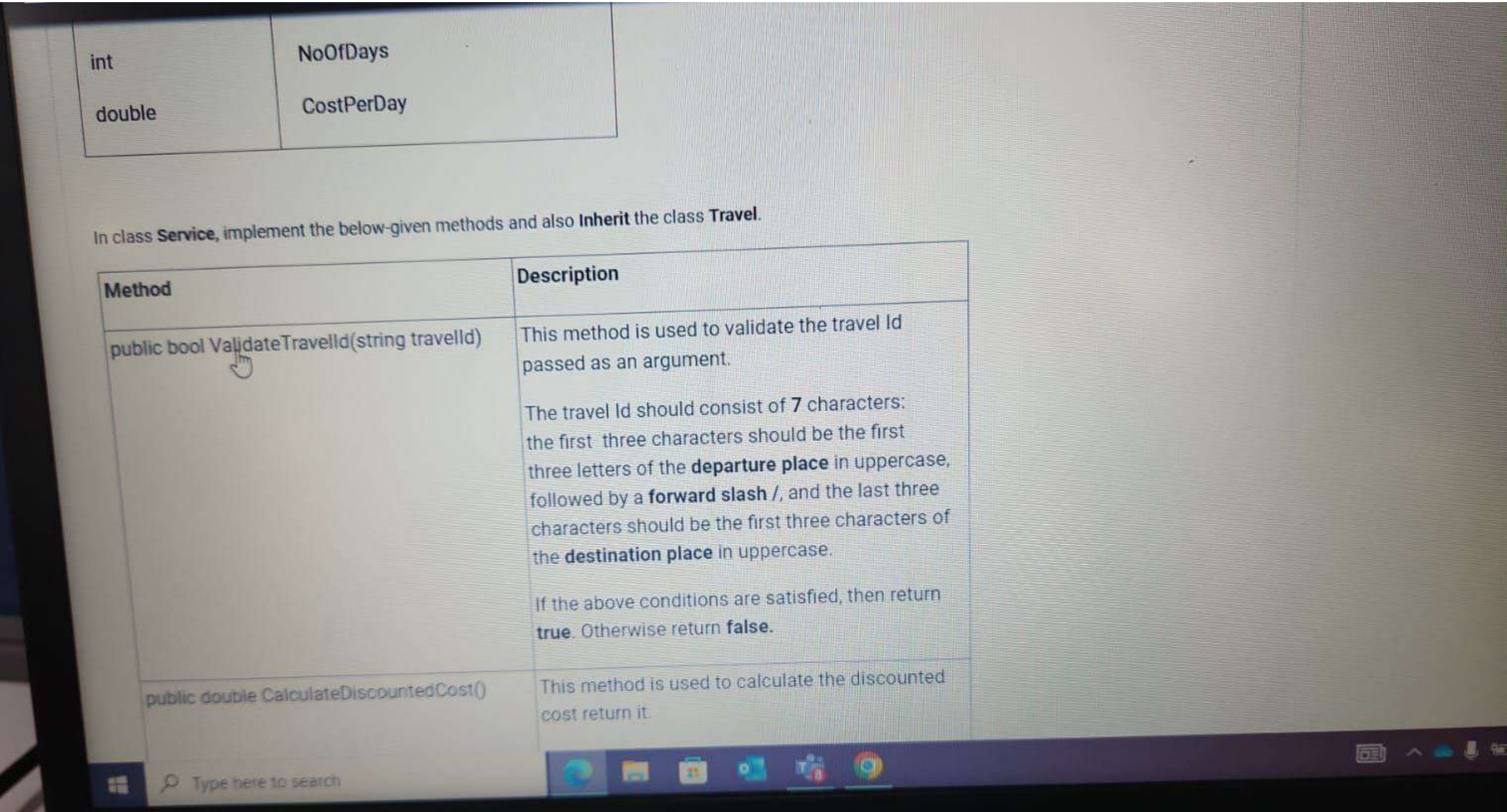
Functionalities:

In class **Travel**, implement the below-given properties.

Data Type	Property Name
string	TravelId
string	DeparturePlace
string	DestinationPlace
int	NoOfDays
double	CostPerDay

In class **Service**, implement the below-given methods and also **inherit** the class **Travel**

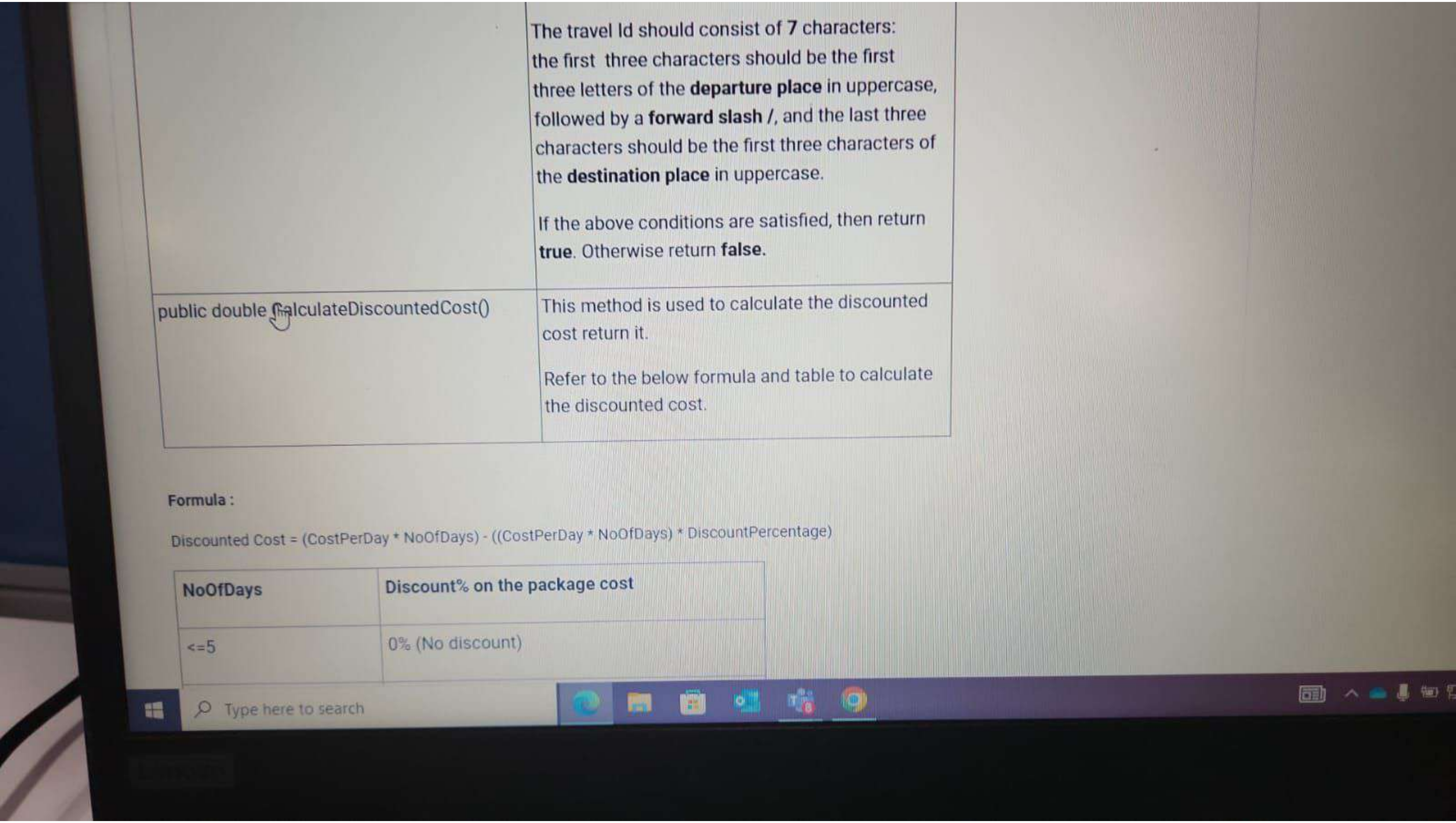
Method	Description



int	NoOfDays
double	CostPerDay

In class **Service**, implement the below-given methods and also **Inherit** the class **Travel**.

Method	Description
public bool ValidateTravelId(string travelId)	This method is used to validate the travel Id passed as an argument. The travel Id should consist of **7** characters: the first three characters should be the first three letters of the **departure place** in uppercase, followed by a **forward slash** /, and the last three characters should be the first three characters of the **destination place** in uppercase. If the above conditions are satisfied, then return **true**. Otherwise return **false.**
public double CalculateDiscountedCost()	This method is used to calculate the discounted cost return it.

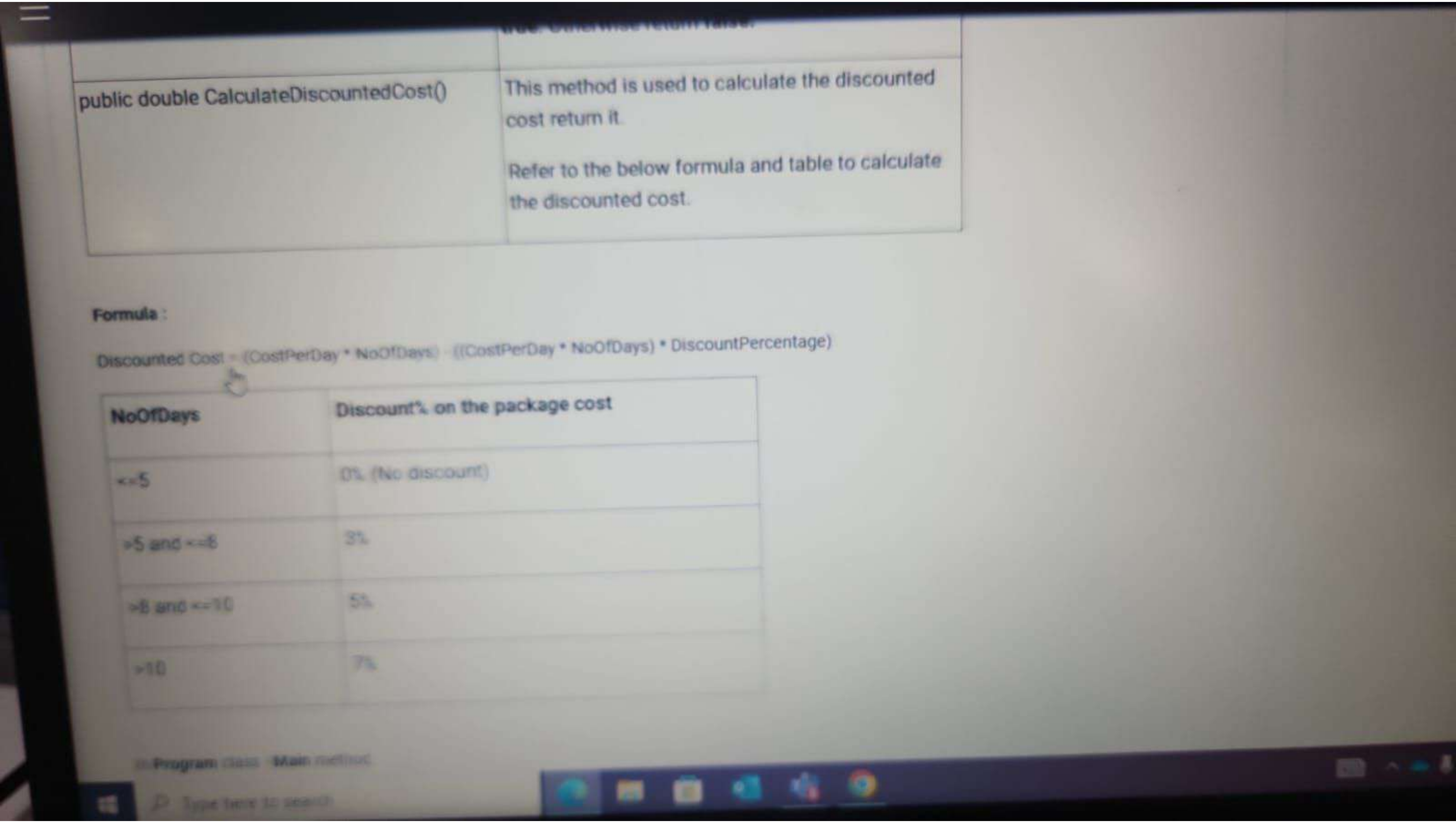


	The travel Id should consist of **7** characters: the first three characters should be the first three letters of the **departure place** in uppercase, followed by a **forward slash /**, and the last three characters should be the first three characters of the **destination place** in uppercase. If the above conditions are satisfied, then return **true**. Otherwise return **false.**
public double calculateDiscountedCost()	This method is used to calculate the discounted cost return it. Refer to the below formula and table to calculate the discounted cost.

Formula :

Discounted Cost = (CostPerDay * NoOfDays) - ((CostPerDay * NoOfDays) * DiscountPercentage)

NoOfDays	**Discount% on the package cost**
<=5	0% (No discount)



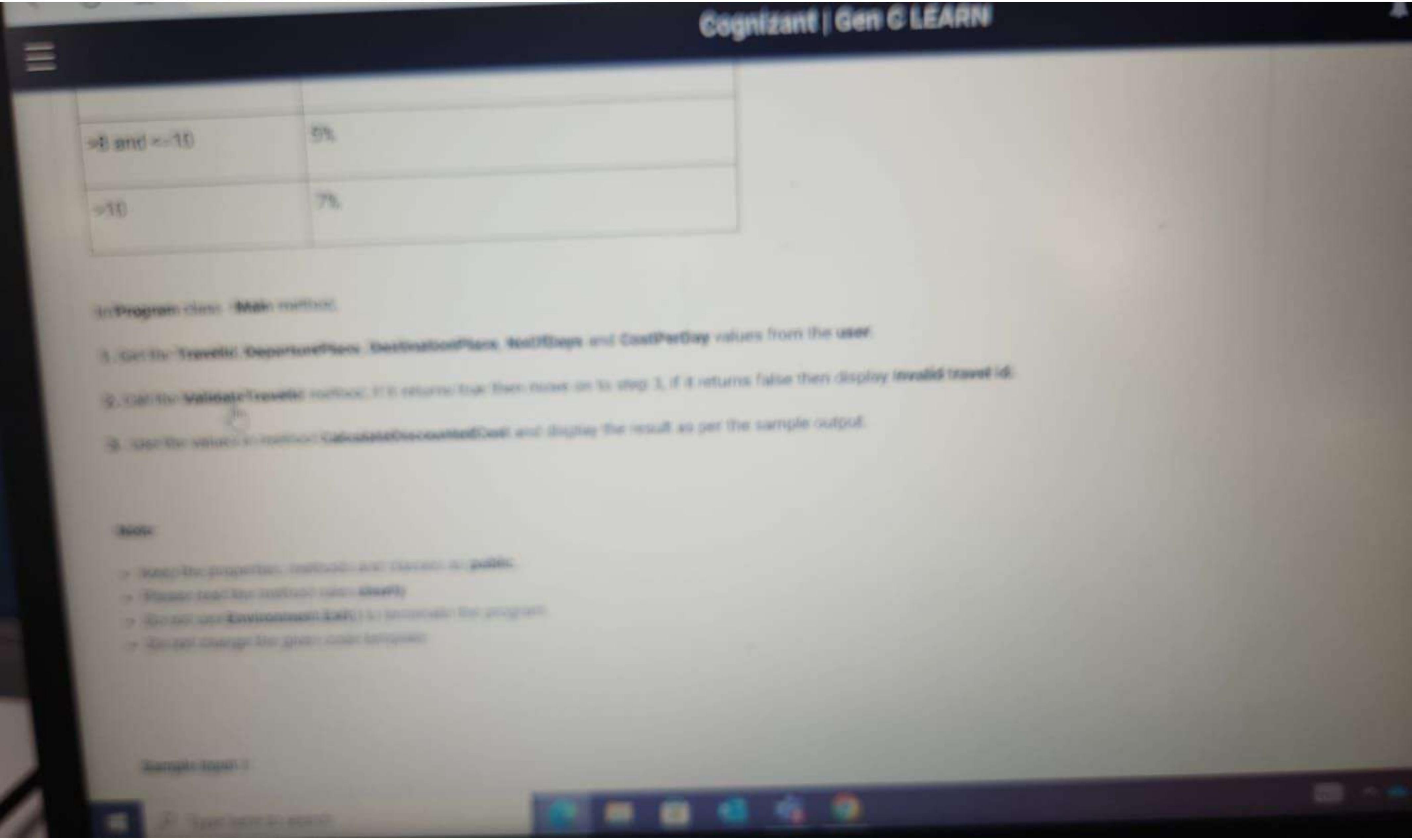
	true. Otherwise return false.
public double CalculateDiscountedCost()	This method is used to calculate the discounted cost return it. Refer to the below formula and table to calculate the discounted cost.

Formula :

Discounted Cost = (CostPerDay * NoOfDays) - ((CostPerDay * NoOfDays) * DiscountPercentage)

NoOfDays	Discount% on the package cost
<=5	0% (No discount)
>5 and <=8	3%
>8 and <=10	5%
>10	7%

In **Program** class - **Main** method



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>8 and <=10	5%
>10	7%

In Program class - Main method:

1. Get the TravelId, DeparturePlace, DestinationPlace, NoOfDays and CostPerDay values from the user.

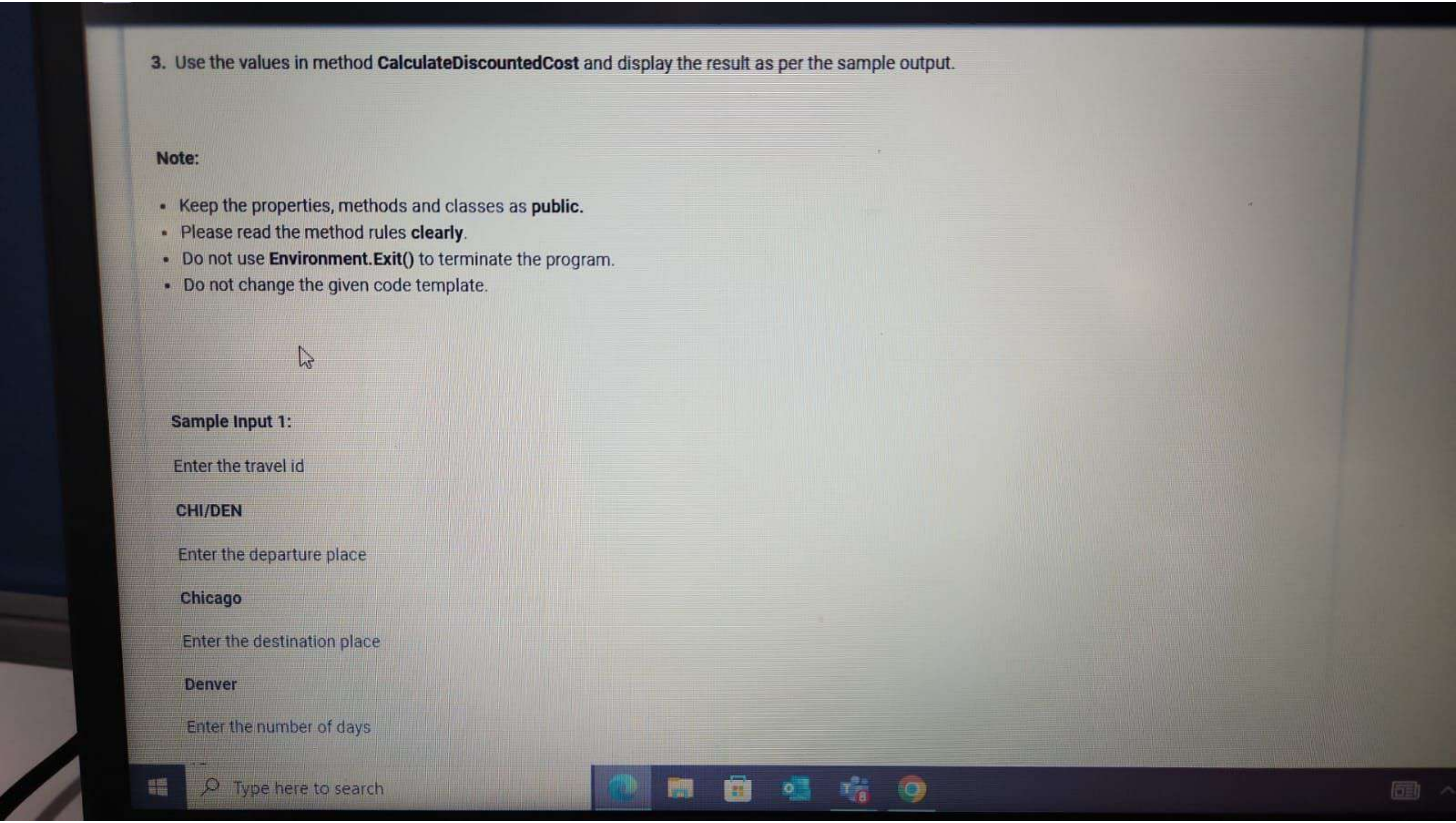
2. Call the ValidateTravelId method, if it returns true then move on to step 3, if it returns false then display invalid travel id.

3. Get the values in method CalculateDiscountedCost and display the result as per the sample output.

Note:

- Keep the properties, methods and classes as **public**.
- Please read the method rules **clearly**.
- Do not use **Environment.Exit()** to terminate the program.
- Do not change the given code template.

Sample Input 1:



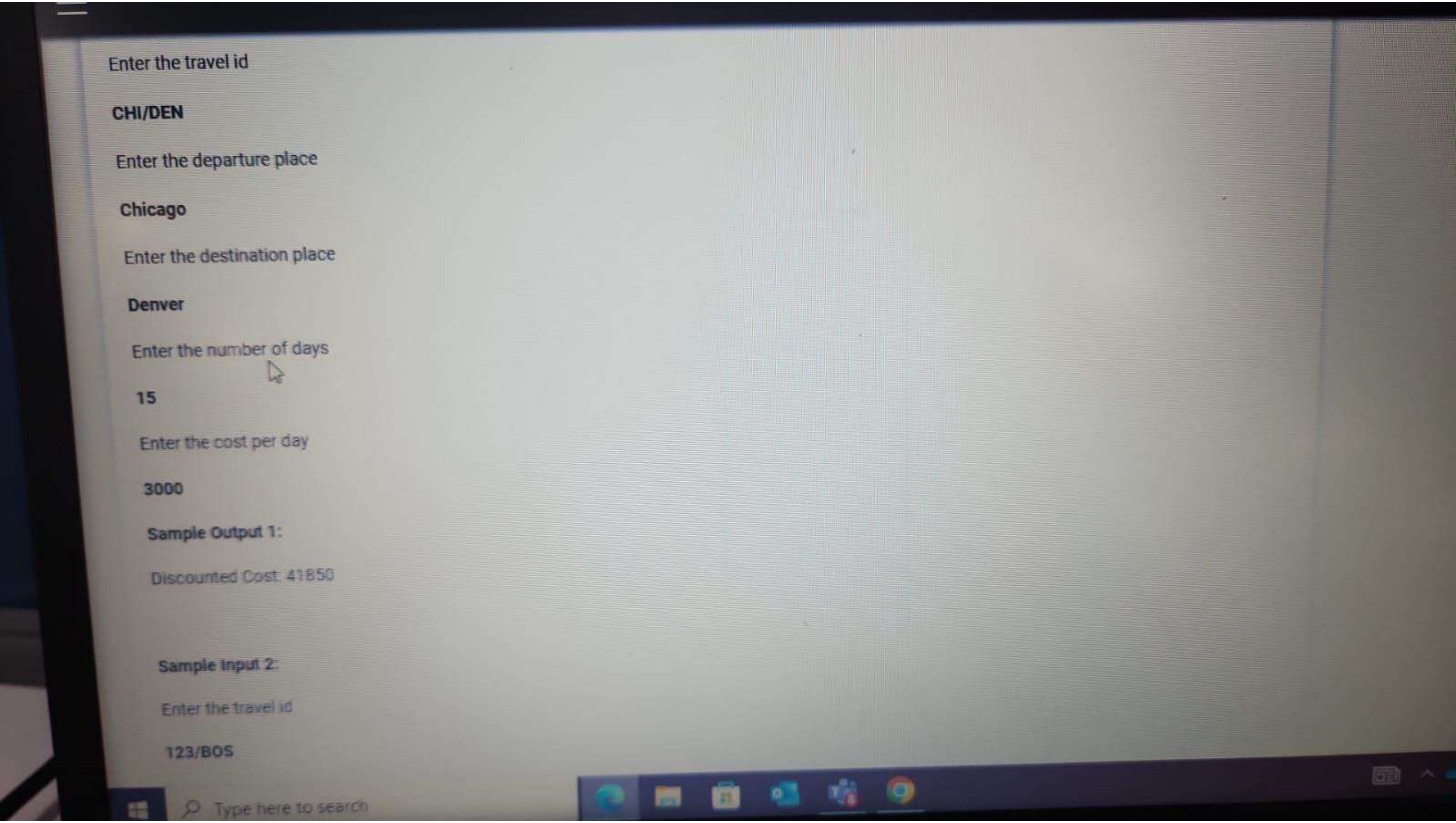
3. Use the values in method **CalculateDiscountedCost** and display the result as per the sample output.

Note:

- Keep the properties, methods and classes as **public.**
- Please read the method rules **clearly**.
- Do not use **Environment.Exit()** to terminate the program.
- Do not change the given code template.

Sample Input 1:

```
Enter the travel id
CHI/DEN
Enter the departure place
Chicago
Enter the destination place
Denver
Enter the number of days
```



Enter the travel id

CHI/DEN

Enter the departure place

Chicago

Enter the destination place

Denver

Enter the number of days

15

Enter the cost per day

3000

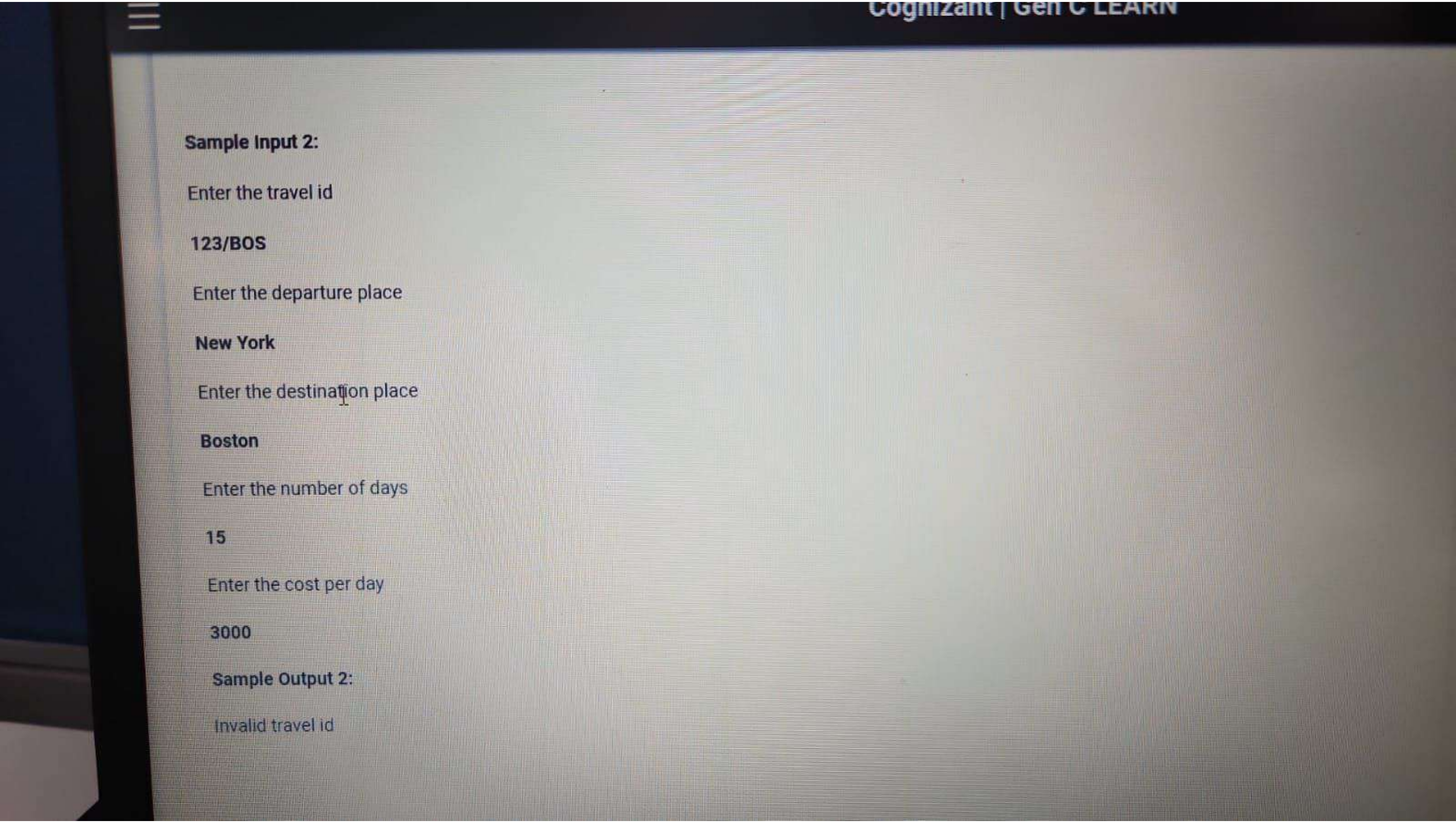
Sample Output 1:

Discounted Cost: 41850

Sample Input 2:

Enter the travel id

123/BOS

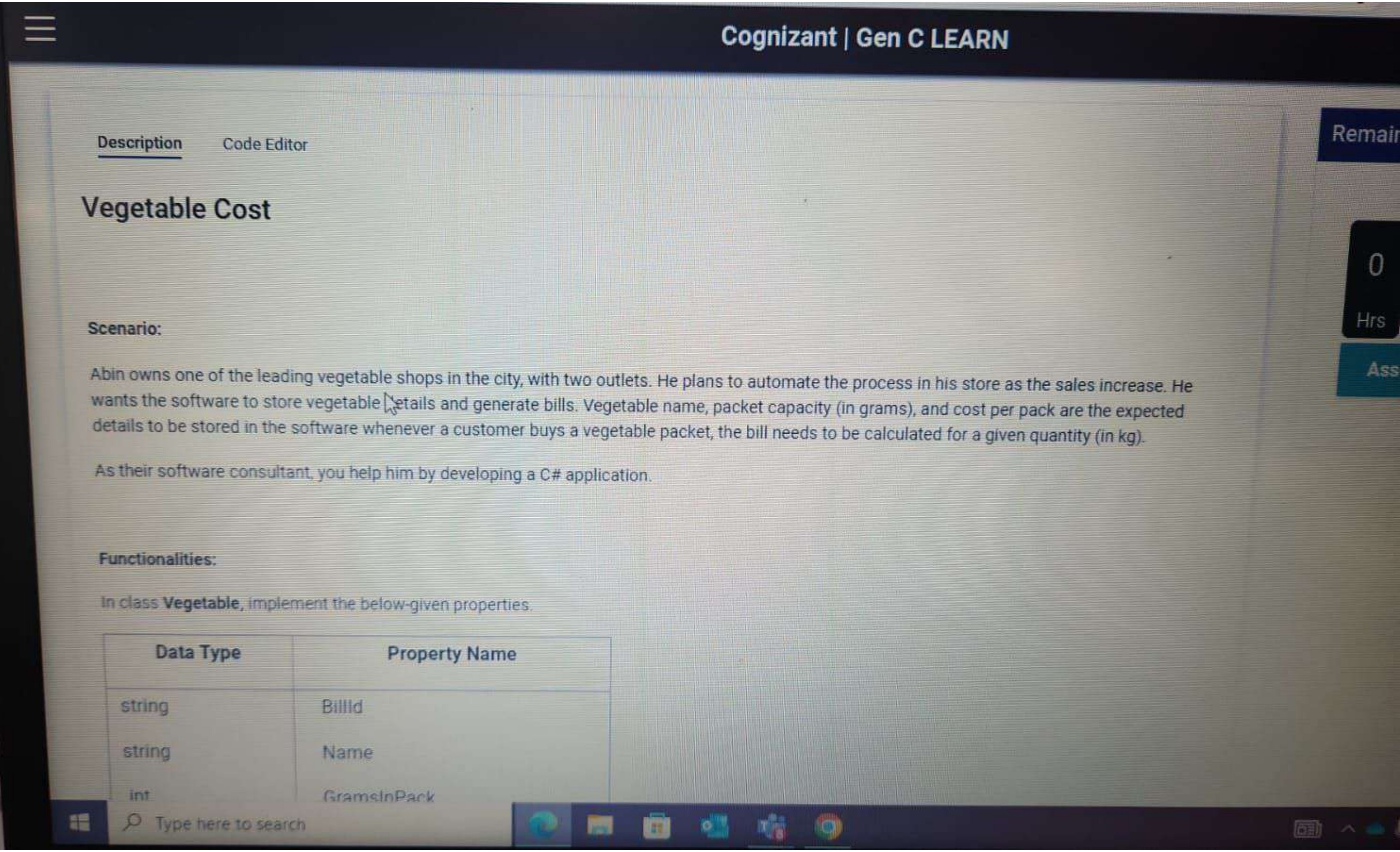


Sample Input 2:

```
Enter the travel id
123/BOS
Enter the departure place
New York
Enter the destination place
Boston
Enter the number of days
15
Enter the cost per day
3000
```

Sample Output 2:

```
Invalid travel id
```



Vegetable Cost

Scenario:

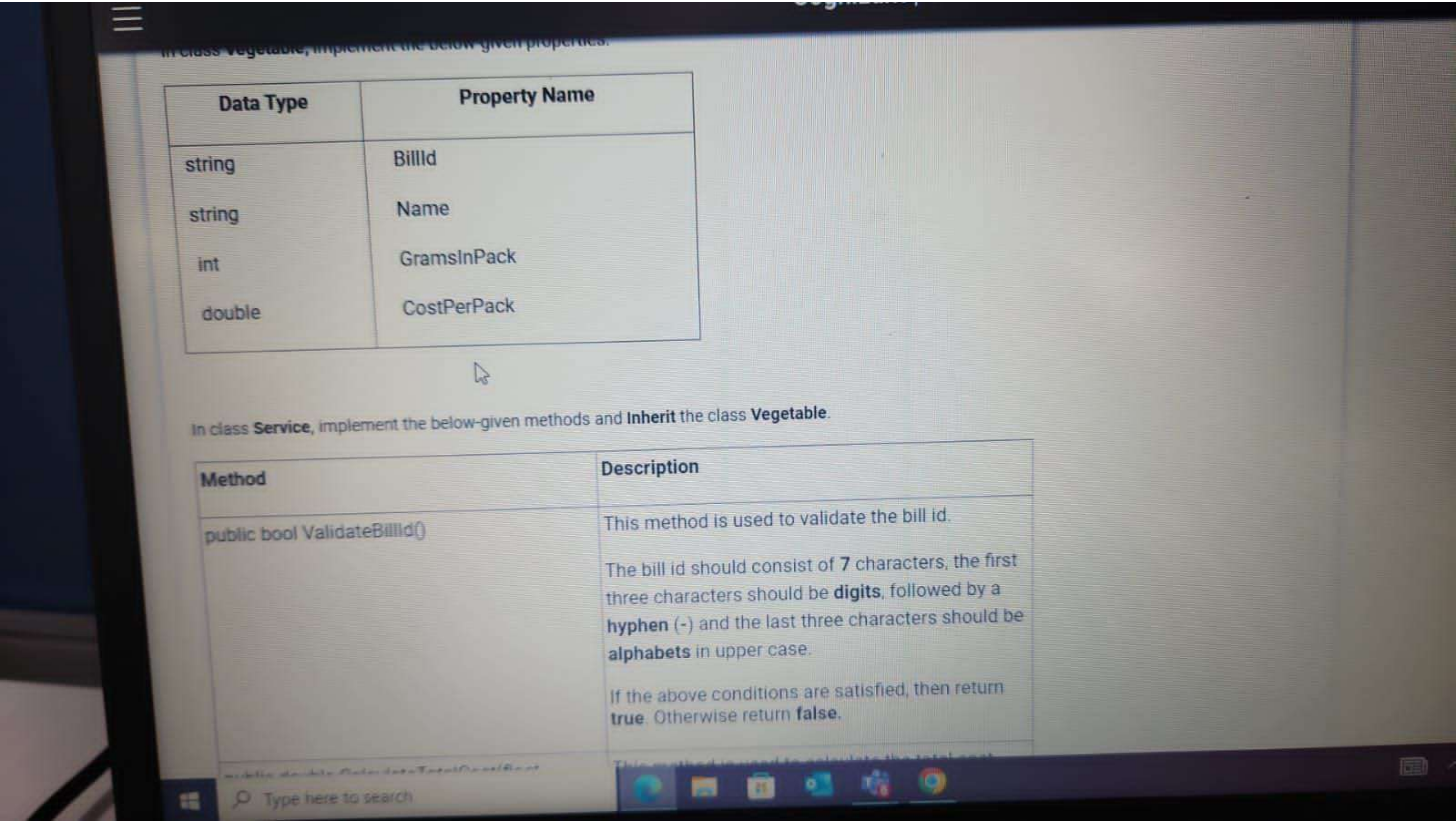
Abin owns one of the leading vegetable shops in the city, with two outlets. He plans to automate the process in his store as the sales increase. He wants the software to store vegetable details and generate bills. Vegetable name, packet capacity (in grams), and cost per pack are the expected details to be stored in the software whenever a customer buys a vegetable packet, the bill needs to be calculated for a given quantity (in kg).

As their software consultant, you help him by developing a C# application.

Functionalities:

In class **Vegetable**, implement the below-given properties.

Data Type	Property Name
string	BillId
string	Name
int	GramsInPack

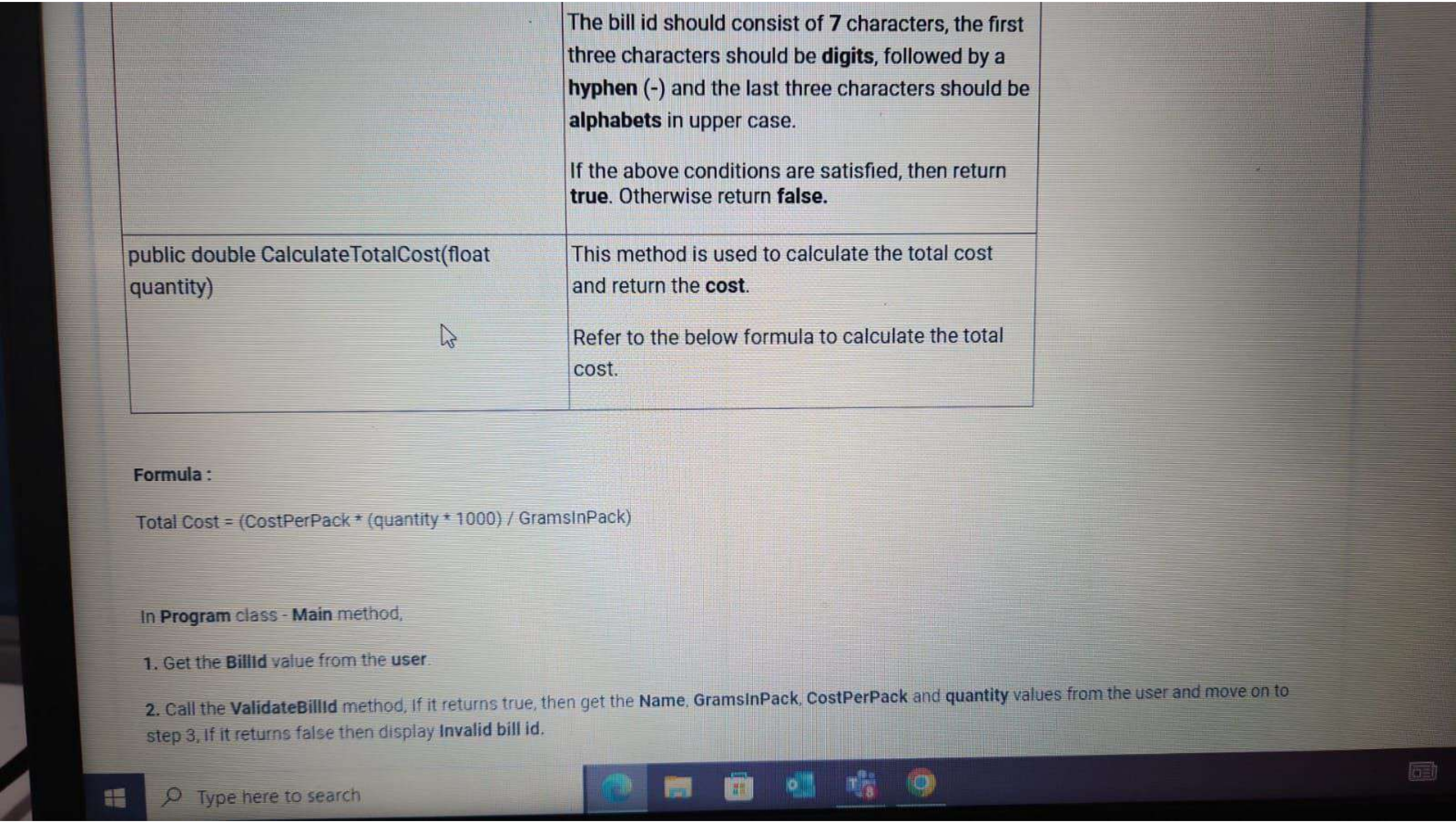


In class Vegetable, implement the below-given properties.

Data Type	Property Name
string	BillId
string	Name
int	GramsInPack
double	CostPerPack

In class **Service**, implement the below-given methods and **Inherit** the class **Vegetable**.

Method	Description
public bool ValidateBillId()	This method is used to validate the bill id. The bill id should consist of **7** characters, the first three characters should be **digits**, followed by a **hyphen** (-) and the last three characters should be **alphabets** in upper case. If the above conditions are satisfied, then return **true**. Otherwise return **false**.



	The bill id should consist of **7** characters, the first three characters should be **digits**, followed by a **hyphen** (-) and the last three characters should be **alphabets** in upper case. If the above conditions are satisfied, then return **true**. Otherwise return **false.**
public double CalculateTotalCost(float quantity)	This method is used to calculate the total cost and return the **cost**. Refer to the below formula to calculate the total cost.

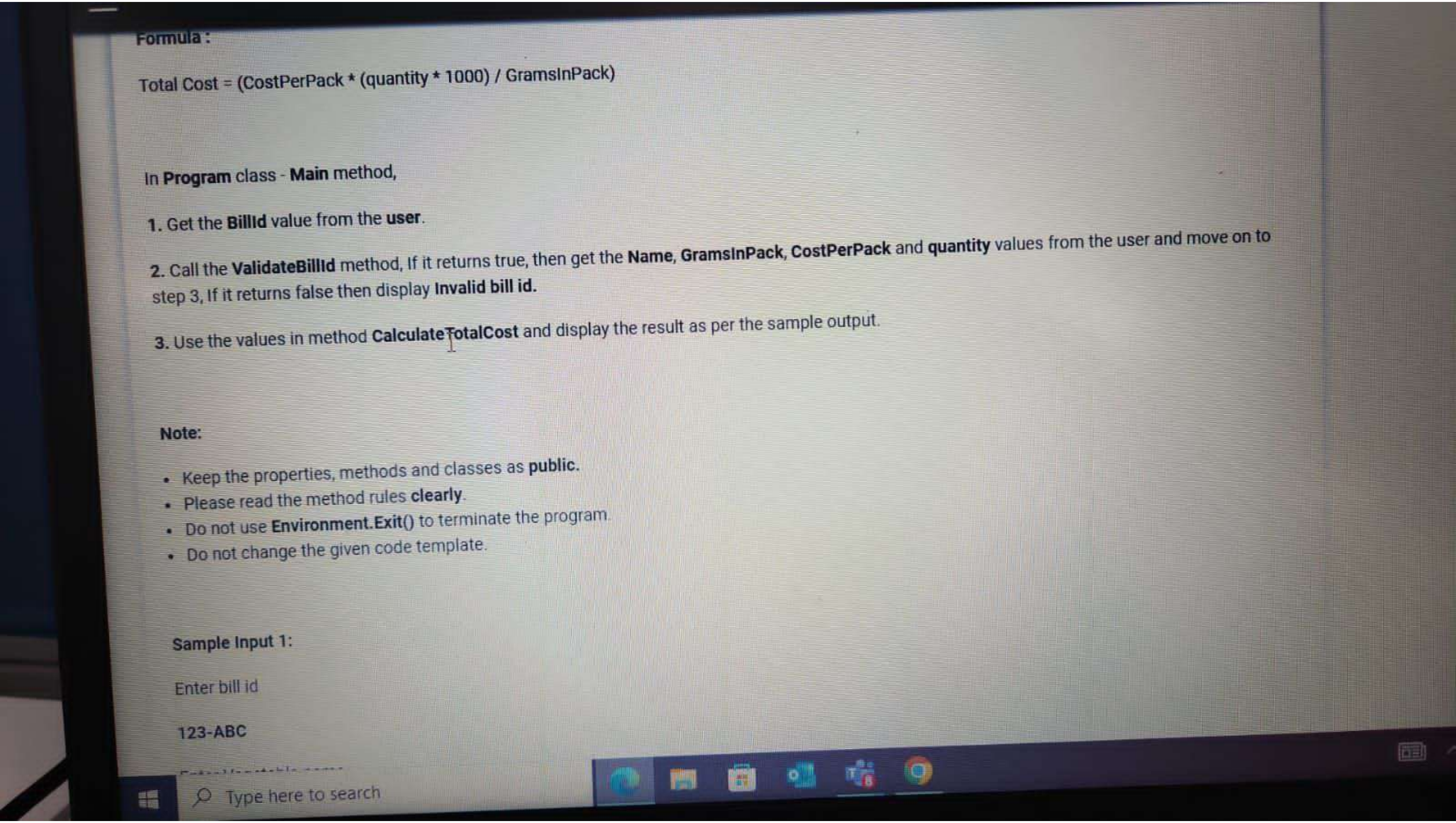
Formula :

Total Cost = (CostPerPack * (quantity * 1000) / GramsInPack)

In **Program** class - **Main** method,

1. Get the **BillId** value from the **user**.

2. Call the **ValidateBillId** method, If it returns true, then get the **Name**, **GramsInPack**, **CostPerPack** and **quantity** values from the user and move on to step 3, If it returns false then display **Invalid bill id.**



Formula :

Total Cost = (CostPerPack * (quantity * 1000) / GramsInPack)

In **Program** class - **Main** method,

1. Get the **BillId** value from the **user**.

2. Call the **ValidateBillId** method, If it returns true, then get the **Name, GramsInPack, CostPerPack** and **quantity** values from the user and move on to step 3, If it returns false then display **Invalid bill id.**

3. Use the values in method **CalculateTotalCost** and display the result as per the sample output.

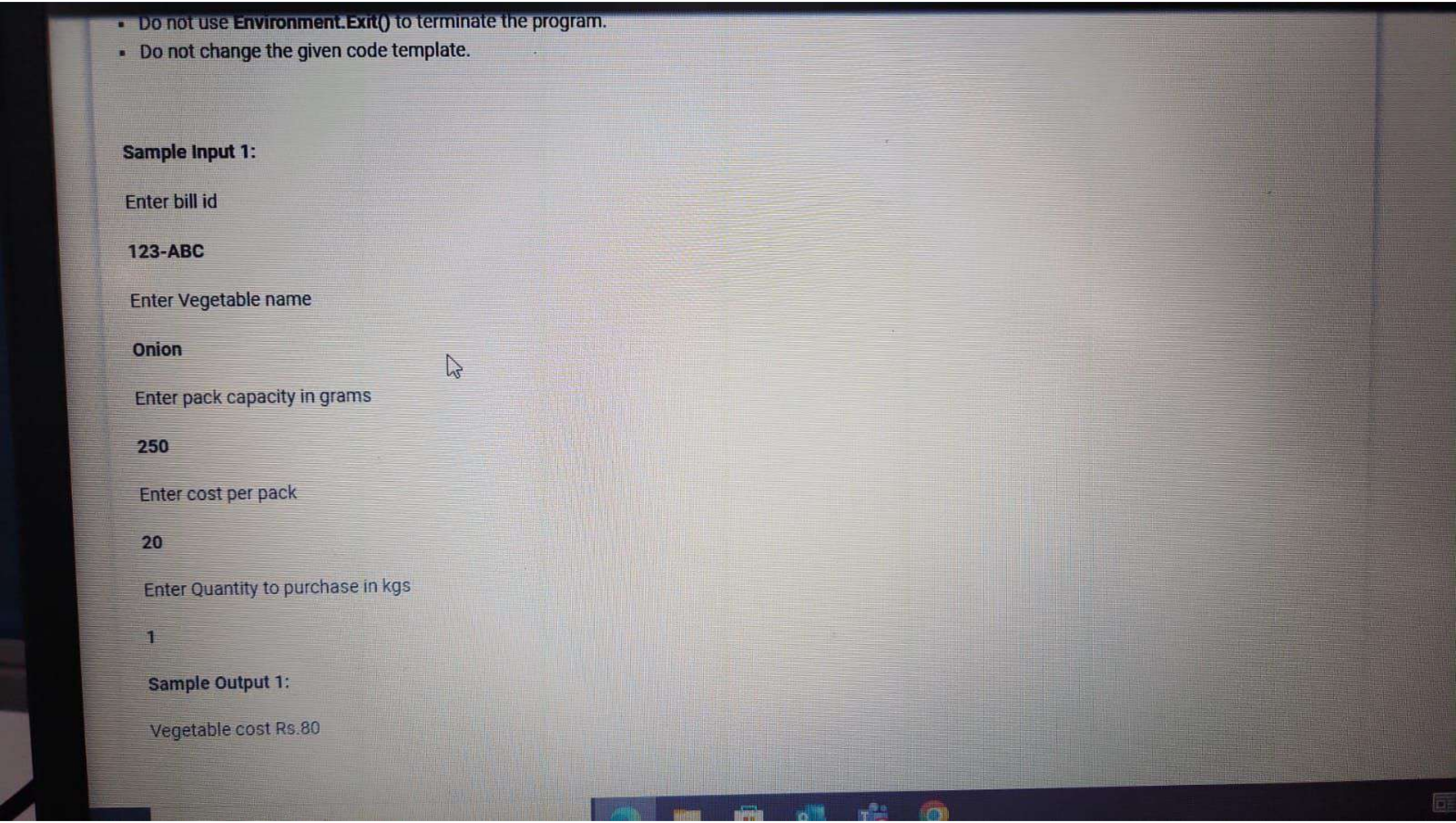
Note:

- Keep the properties, methods and classes as **public.**
- Please read the method rules **clearly**.
- Do not use **Environment.Exit()** to terminate the program.
- Do not change the given code template.

Sample Input 1:

Enter bill id

123-ABC



- Do not use **Environment.Exit()** to terminate the program.
- Do not change the given code template.

Sample Input 1:

Enter bill id

123-ABC

Enter Vegetable name

Onion

Enter pack capacity in grams

250

Enter cost per pack

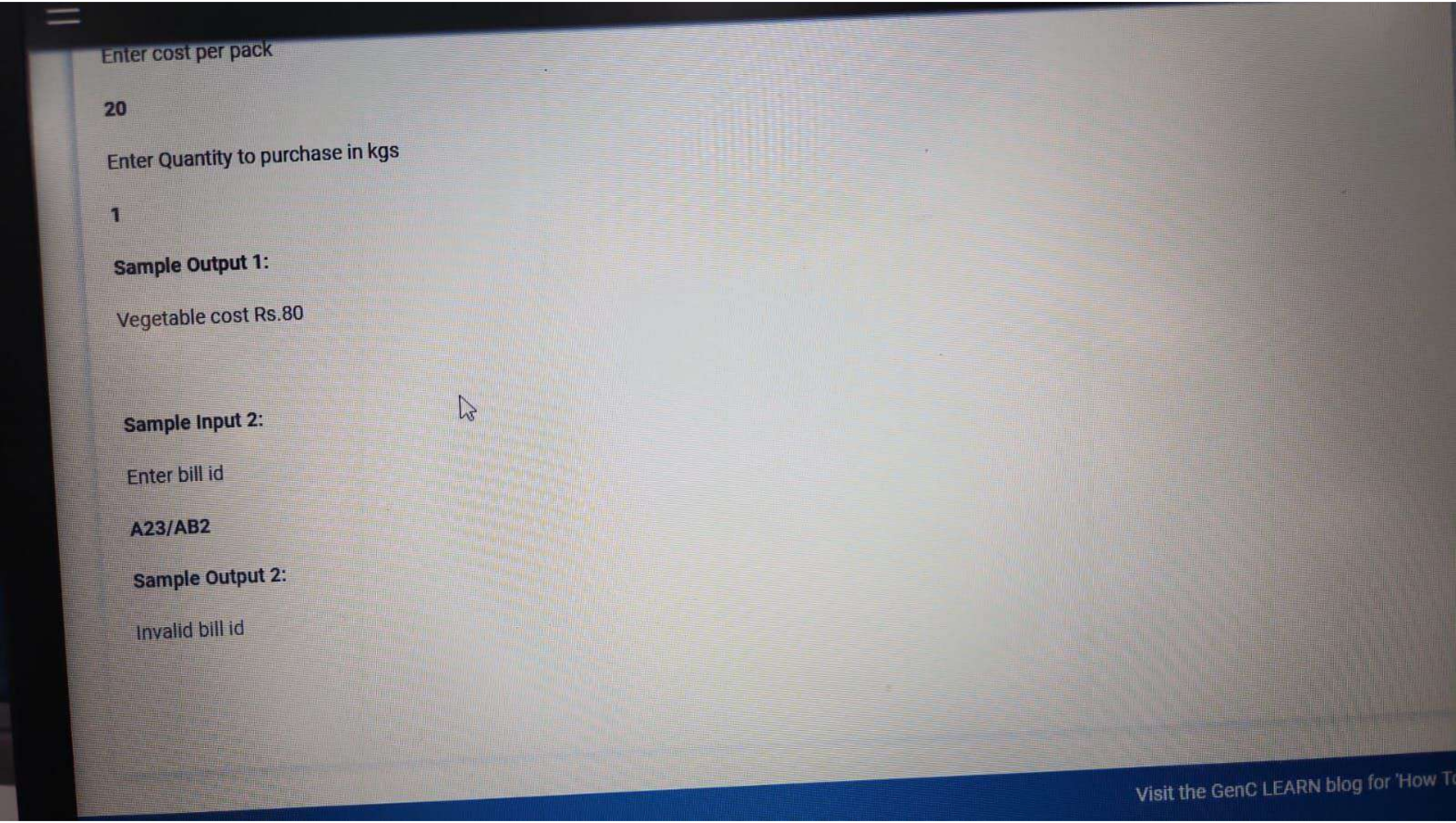
20

Enter Quantity to purchase in kgs

1

Sample Output 1:

Vegetable cost Rs.80



Enter cost per pack

20

Enter Quantity to purchase in kgs

1

Sample Output 1:

Vegetable cost Rs.80

Sample Input 2:

Enter bill id

A23/AB2

Sample Output 2:

Invalid bill id

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