A new recycling company called **NN recycling** has opened up in the Gauteng area. Recently, **NN recycling** has received funds from an Egyptian investor to help KwaZulu-Natal public hospitals both urban and rural areas to earn money through recycling. Hospitals earn a basic reward of R100 for each **disposable medical device** collected for recycling. **Table 1** below details an additional cash reward based on the number of devices collected. The transporting team of **NN recycling** either on weekly or monthly basis collects these devices from each hospital. **NN recycling** collects from all participating hospitals free of charge once a month. However, if an urban-based hospital or a rural-based hospital requires collection on a weekly base, there is a penalty of **5%** and **15%** respectively.

No of Items	Urban Hospital	Rural		
Below 99	Not applicable	Quarter of basic cash reward	$\frac{1}{4}$	0,25
Between 100-499	Not applicable	Two quarters of basic cash reward	$\frac{2}{4}$	0,5
Above 499	Three quarters of basic cash reward	Three quarters of basic cash reward	$\frac{3}{4}$	

handwritten annotations: uL=100 &f num= / num<99 / (on urban cell) 3/4 / (on rural cell) 3/4 / 0,75

Table 1- Additional cash rewards

handwritten: namespace NN RecyclingApp

```
public class RecyclingHospitalItems
{
    public string hospitalName { get; set; }
    public string hospitalLoc { get; set; }
    public int numRecycItems { get; set; }
    public string Collection { get; set; }
    public double basicCashReward { get; set; }
    public double addCashReward { get; set; }
    public double PenaltyCost { get; set; }
    public double total_Reward { get; set; }
    public double finalReward { get; set; }
}
```

*handwritten annotations: TextBoxFor / 90*2 / 180 / R1.80 / numof..x 1,80 / Rurel / 2* urbamt / V: ItemTypes / Urbein / num of items * 0.90 / num of items * 0.90*

Given the model above, write a C# code to complete this application as shown in Figure I and shows the workings for the following

1.1	A method that <u>calculate basic cash reward</u> for all devices.	[4]
1.2	A method that calculate an additional cash reward.	[15]
1.3	A method to calculate Total Cash Reward	[5]
1.4	A method that calculate a penalty cost.	[10]
1.5	A method that calculate a final cash reward due to a hospital.	[4]
1.6	Code the view as shown in Figure 1 below.	[12]

+ controller

Display Hospital Recycling Rewards

Enter Hospital Name: `Bethesda Hospital`

Enter Hospital Location(rural/urban): `rural`

Enter Number of Devices: `150`

Collection Type(monthly/weekly): `weekly`

calculate

Basic Cash Reward: 150x 100 =15000

Additional Cash Reward: X 15% 7500

Penalty Cost: 3375

Total Cash Reward: 19125

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Figure I – NN Recycling quotation in a running mode.