**Event - Abstract class**

Write a program to calculate and display the event details.

**[Note : Strictly adhere to the object-oriented specifications given as a part of the problem statement.  
Follow the naming conventions as mentioned. Create separate classes in separate files.]**  
  
Consider an abstract class **Event**with following private attributes,

|  |  |
| --- | --- |
| **Data type** | **Attributes** |
| string | \_eventName |
| DateTime | \_bookedDate |

The methods for **constructors** is given in the template code.  
  
And also contains two abstract methods. They are,

* **abstract public double ProjectedRevenue()**
* **abstract public double CalculateTax()**

Consider a class named **Exhibition**which extends an **Event** class with following attributes,

|  |  |
| --- | --- |
| **Data type** | **Attribute** |
| int | \_noOfStall |
| double | \_rentPerStall |

The methods for **constructors** is given in the template code.  
  
And also implement the following methods,

|  |  |  |
| --- | --- | --- |
| **Sno** | **Method name** | **Method description** |
| 1 | double ProjectedRevenue() | This method is used to calculate the total amount. Calculate the rent(\_rentPerStall) for then(\_noOfStall) number of stall, and return that calculated amount. |
| 2 | double CalculateTax() | This method is used to find the tax amount for each stall. For each stall, tax percentage is 4.2%. Calculate the total tax amount for n(\_noOfStall) number of the stall and return that total amount. |

Consider a class **StageEvent** which extends an Event class with following variables /attributes,

|  |  |
| --- | --- |
| **Data type** | **Variable name** |
| int | \_noOfShows |
| double | \_costPerShow |

The methods for **constructors** is given in the template code.  
  
And also implement the following methods,

|  |  |  |
| --- | --- | --- |
| **Sno** | **Method name** | **Method description** |
| 1 | double ProjectedRevenue() | This method is used to calculate the total amount. Calculate the cost(\_costPerShow) for then(\_noOfShows) number of the show, and return that calculated amount. |
| 2 | double CalculateTax() | This method is used to find the tax amount for each show. For each show, tax percentage is 3.5%. Calculate the total tax amount for n(\_noOfShows) number of show and return that total amount. |

Consider a class **Program**with the **Main** method to test the above classes.  
  
**Problem Specification:**  
In this problem, input is menu driven,

1. Exhibition

2. Stage event  
If the user selects option-1,   
             The second line of the input consists of a string, that corresponds to the event name.  
             The third line of the input consisting of a date, that corresponds to the booking date.  
             The fourth line of the input consists of an integer, that corresponds to the total number of stalls in the exhibition.  
             The fifth line of the input consist of a double, that corresponds to the rent per stall.  
  
             Print the actual price(number of stalls \* rent), tax for each stall and total amount.  
  
If the user selects option-2,   
             The second line of the input consists of a string, that corresponds to the event name.  
             The third line of the input consists of a date, that corresponds to the booking date.  
             The fourth line of the input consists of an integer, that corresponds to the total number of the show.  
             The fifth line of the input consist of a double, that corresponds to the cost per show.  
  
             Print the actual price(number of show \* cost per show), tax for each show and total amount.

**Note:**  
For Exhibition, the tax for each stall is 4.2%.  
For StageEvent, the tax for each show is 3.5%.  
Print **2 decimal**place for double(data type) value.

**Input and Output Format:**  
Refer sample input and output for formatting specifications.

**Sample Input and Output 1:**

1. Exhibition

2. Stage event

Enter the choice:

**1**

Enter the event name:

**Planetorium**

Enter booked date:

**15-10-2017**

Enter the total number of stalls:

**28**

Enter rent per stall:

**3400**

Revenue amount: 95200.00

Tax amount: 3998.40

Total amount: 99198.40  
  
**Sample Input and Output 2:**

1. Exhibition

2. Stage event

Enter the choice:

**2**

Enter the event name:

**Magic Show**

Enter booked date:

**12-12-2018**

Enter the total number of shows:

**8**

Enter cost per show:

**2900**

Revenue amount: 23200.00

Tax amount: 812.00

Total amount: 24012.00