Ex. No. 02	CONSOLE APPLICATION USING CLASS & OBJECT
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To develop C# console application using classes, objects, constructors, getter and setter.

Description

Class: Blue print of an object

Contains:

- Fields: variables to store data
- Methods: Functions to perform specific tasks.

Syntax: class <class_name>

Object: Instance of a class

Syntax: <class_name> <variable> = new <class_name>();

Using dot operator with the object reference variable fields and methods of the class can be accessed

Constructor: looks like a method has same name as that of the class and it will be called automatically while creating an object to the class.

3 types: Default Constructor, Parameter less Constructor & Parameterized Constructor

Getter: Gives access to private fields, returns the value.

Setter: Allows to change the private fields, validation before the value is set

Source Code

```
using System;
namespace Ex2{
   public class Movie{
      private string name, theaterName;
      private int noOfAvailableTickets, cost;
      public Movie(string name, string theaterName, int no, int cost){
         this.name = name;
         this.theaterName = theaterName;
         this.noOfAvailableTickets = no;
         this.cost = cost;
      }
      public int tickets{
         get { return this.noOfAvailableTickets; }
         set { this.noOfAvailableTickets = value; }
      }
      public int Cost{
         get { return this.cost; }
         set { this.cost = value; }
      }
      public void display(){
         Console.WriteLine("Name: " + this.name);
         Console.WriteLine("Theater Name: " + this.theaterName);
```

```
        Console.WriteLine("Available Tickets: " + this.noOfAvailableTickets);
        Console.WriteLine("Cost: " + this.cost);
    }
}
class MovieBooking{
    static void Main(string[] args){
        string name, tname;
        int nos, price;
        Console.WriteLine("Enter Movie Details");
        Console.Write("Name: ");
        name=Console.ReadLine();
        Console.Write("Theater Name: ");
        tname = Console.ReadLine();
        Console.Write("#. Tickets: ");
        nos = Convert.ToInt16(Console.ReadLine());
        Console.Write("Price: ");
        price = Convert.ToInt16(Console.ReadLine());
        Movie movie1 = new Movie(name,tname,nos,price);

        while (true){
            Console.Write("\n1. Display \n2. Buy Tickets \n0. Exit \nEnter Your Choice: ");
            int ch=Convert.ToInt16(Console.ReadLine());
            if (ch == 1){
                Console.WriteLine();
```

```
            movie1.display();
        }
        else if (ch == 2){
            Console.Write("Enter #. Tickets: ");
            int no_t=Convert.ToInt16(Console.ReadLine());
            if (no_t <= movie1.tickets){
                int tot_cost = no_t * movie1.Cost;
                Console.WriteLine("Total Cost: "+tot_cost);
                movie1.tickets = movie1.tickets-no_t;
            }
            else { Console.WriteLine("Enter Vaild #. Tickets"); }
        }
        else if (ch == 0){
            Console.WriteLine("\nThanks for Visiting");
            break;
        }
        else{
            Console.WriteLine("Enter a vaild Input");
        }
      }
      Console.ReadKey();
    }
  }
}
```

Output

```
Enter Movie Details
Name: Tamil Padam 1
Theater Name: Home
#. Tickets: 450
Price: 110

1. Display
2. Buy Tickets
0. Exit
Enter Your Choice: 1

Name: Tamil Padam 1
Theater Name: Home
Available Tickets: 450
Cost: 110

1. Display
2. Buy Tickets
0. Exit
Enter Your Choice: 2
Enter #. Tickets: 15
Total Cost: 1650

1. Display
2. Buy Tickets
0. Exit
Enter Your Choice: 1

Name: Tamil Padam 1
Theater Name: Home
Available Tickets: 435
Cost: 110

1. Display
2. Buy Tickets
0. Exit
Enter Your Choice: 0

Thanks for Visiting
```

Result

The C# console application using class, object, constructor, getter and setter has been executed successfully and the desired output is displayed on the screen.