|  |
| --- |
| DAY 14 Assignment  By  Nanam Vaishnavi  10 - Feb - 2022 |

|  |
| --- |
| **1) Research and write what is the use of sealed class.**  **Write a C# program to illustrate sealed class.** |
| **Sealed Class**   * It is a class that can’t be inherited by another class but can be instantiated. * It can be used as parent class or base class. |
| **CODE :** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose : Sealed class  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project1  {  sealed class Police  {  public static int Helpline = 100;  public string Getsecret()  {  return "556";  }  }    internal class Program  {  static void Main(string[] args)  {  Police p = new Police();  Console.WriteLine(p.Getsecret());  Console.WriteLine(Police.Helpline);  Console.ReadLine();  }  }  } |
| **OUTPUT** |
|  |

|  |  |
| --- | --- |
| **2) Research and write what is the difference between normal properties and auto-implemented properties.**  **WACP to illustrate normal properties**  **WACP to illustrate auto-implemented properties.** | |
| **Normal Properties** | **Auto – Implemented Properties** |
| * It is a member that provides a flexible mechanism for classes to expose private fields. | * It enables you to quickly specify a property of a class without having to write code to get and set the property. |
| * These are similar to class variables with **get; & set;** Methods. | * It must consists of **get;** method and set; is optional. |
| * It must start with Uppercase. |  |
| **Write a C# program to illustrate normal properties** | |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose : To illustrate normal properties  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project\_2  {  public class Employee  {  private int id;  public string name;  public int salary;  public int Id  {  get  {  return id;  }  set  {  id = value;  }  }  public string Name  {  get  {  return name;  }  set  {  name = value;  }  }  public int Salary  {  get  {  return salary;  }  set  {  salary = value;  }  }  }    internal class Program  {  static void Main(string[] args)  {  Employee emp = new Employee();  emp.Id = 501;  emp.Name = "Vaishnavi";  emp.Salary = 30000;  Console.Write($"id={emp.Id}, name={emp.Name}, salary= {emp.Salary}");  Console.ReadLine();  }    }  } | |
| **OUTPUT** | |
|  | |
| **Write a C# Program to illustrate auto-implemented properties** | |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose : Auto - implemented property  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project3  {  class Customer  {  private string name;  private int id;  private string email;    public void SetId(int Id)  {  this.id = Id;  }  public int GetId()  {  return this.id;  }  public void SetName(string Name)  {  this.name = Name;  }  public string GetName()  {  return this.name;  }  public void SetEmail(string Email)  {  this.email =Email;  }  public string GetEmail()  {  return this.email;  }  }  internal class Program  {  static void Main(string[] args)  {  Customer c = new Customer();  c.SetId(501);  c.SetName("Vaishnavi");  c.SetEmail("abcd@gmail.com");  Console.WriteLine(c.GetId());  Console.WriteLine(c.GetName());  Console.WriteLine(c.GetEmail());  Console.ReadLine();  }  }  } | |
| **OUTPUT** | |
|  | |

|  |
| --- |
| **4. WACP to check if the number is prime or not using logic discussed in the class**  **HINT : use break;** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose : Prime number using break  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project4  {  internal class Program  {  static void Main(string[] args)  {  int v , i;  Console.WriteLine("Enter a number: ");  v = Convert.ToInt32(Console.ReadLine());  for(i=2;i<v;i++)  {  if (v % i == 0)  break;  }  if (i == v)  Console.WriteLine("PRIME");  else  Console.WriteLine("NOT PRIME");  Console.ReadLine();  }  }  }  **OUTPUT** |
|  |

|  |
| --- |
| **5. print numbers from 1 to 30 and skip the numbers divisible by 3**  **HINT : use continue;** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose : print numbers from 1 to 30 and skip the numbers divisible by 3.  // HINT : use continue;  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project5  {  internal class Program  {  static void Main(string[] args)  {  for (int i=1; i <= 30;i++)  {  if (i % 3 == 0)  continue;  Console.WriteLine(i);  }  Console.ReadLine();    }  }  } |
| **OUTPUT** |
|  |

|  |
| --- |
| **6. Find the first number after 1000 which is divisible by 97.**  **HINT : use for loop and break** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // Author : Nanam Vaishnavi  // Purpose: Find the first number after 1000 which is divisible by 97.  // HINT : use for loop and break  // \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day14Project6  {  internal class Program  {  static void Main(string[] args)  {  for(int i=1000;i<=1097; i++)  {  if (i % 97 == 0)  {  Console.WriteLine(i);  break;  }  }  Console.ReadLine();  }  } } |
| **OUTPUT** |
|  |