**Day 7 Morning Assignment**

**By**

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**Date: 01 Feb 2022**

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| 1. Create Employee class with three variables and two methods ReadEmployee and PrintEmployee and create an object and call methods. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project1  {  class Employee  { /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni  \* Purpose : Create Employee class with three variables and two methods  ReadEmployee and PrintEmployee and create an object and call methods.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  private int id;  private string name;  private int salary;  public void ReadEmployee()  {  Console.WriteLine("Enter Employee ID :");  id = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Employee Name :");  name = Console.ReadLine();  Console.WriteLine("Enter Employee Salary :");  salary = Convert.ToInt32(Console.ReadLine());  }  public void PrintEmployee()  {  Console.WriteLine($"Employee ID = {id}, Employee Name = {name}, Employee Salary = {salary}");  }  }  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("Employee class with three variables and two methods By Varun");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Employee emp = new Employee();  emp.ReadEmployee();  emp.PrintEmployee();  Console.ReadLine();  }  }  } |
| Output : |
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| 2. Write the 3 definitions of class and 4 points about object discussed in the class. |
| Answer: |
| Class   1. A class is group of variables and method. 2. A class is like a design to create object. 3. A class consists of state and behaviour. |
| Object   1. An object is an instance of a class. 2. We can create any number of objects. 3. Object occupy memory. 4. Objects are reference type. |

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| 4. Create below classes.   1. Customer class. 2. Product class. 3. Seller class. 4. Department class. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ClassonCusProSelDept  {  internal class Customer  {  private int cusid;  private string cusname;  private string cusemail;  public void ReadCustomer()  {    Console.WriteLine("Enter Customer ID :");  cusid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Customer Name :");  cusname = Console.ReadLine();  Console.WriteLine("Enter Customer Email :");  cusemail = Console.ReadLine();  }  public void PrintCustomer()  {  Console.WriteLine($"Customer ID = {cusid}, Customer Name = {cusname}, Customer Email = {cusemail}");  }  }  internal class Product  {  private int proid;  private string proname;  private int proprice;  public void ReadProduct()  {  Console.WriteLine("Enter Product ID :");  proid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Product Name :");  proname = Console.ReadLine();  Console.WriteLine("Enter Product Price :");  proprice = Convert.ToInt32(Console.ReadLine());  }  public void PrintProduct()  {  Console.WriteLine($"Product ID = {proid}, Product Name = {proname}, Product Price = {proprice}");  }  }  internal class Seller  {  private int selid;  private string selname;  private string selemail;  public void ReadSeller()  {  Console.WriteLine("Enter Seller ID :");  selid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Seller Name :");  selname = Console.ReadLine();  Console.WriteLine("Enter Seller Email :");  selemail = Console.ReadLine();  }  public void PrintSeller()  {  Console.WriteLine($"Seller ID = {selid}, Seller Name = {selname}, Seller Email = {selemail}");  }  }  internal class Department  {  private int deptno;  private string deptname;  private string deptcat;  public void ReadDepartment()  {    Console.WriteLine("Enter Department Number :");  deptno = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Department Name :");  deptname = Console.ReadLine();  Console.WriteLine("Enter Department Category :");  deptcat = Console.ReadLine();  }  public void PrintDepartment()  {  Console.WriteLine($"Department Number = {deptno}, Department Name = {deptname}, Department Category = {deptcat}");  }  }  internal class Program  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni  \* Purpose : Class Creation of Customer, Product, Seller, Department.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  static void Main(string[] args)  {  Console.WriteLine("Class Creation of Customer, Product, Seller, Department");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Customer cus = new Customer();  cus.ReadCustomer();  cus.PrintCustomer();  Product pro = new Product();  pro.ReadProduct();  pro.PrintProduct();  Seller sel = new Seller();  sel.ReadSeller();  sel.PrintSeller();  Department dept = new Department();  dept.ReadDepartment();  dept.PrintDepartment();  Console.ReadLine();  }  }  } |
| Output : |
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| 5. Create Employee class with three public variables. Create Employee object and initialize with values while creating object and print the value. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ClassEmpObjInitValue  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni.  \* Purpose : Create Employee class with 3 public var. Create Emp object and init with values while creating obj and print the value.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("Create Employee class with 3 public var. Create Emp object and init with values while creating obj and print the value by Varun");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Employee emp = new Employee() { id = 123, name = "Varun", salary = 30000 };  Console.WriteLine($"Employee ID : {emp.id}, Employee Name : {emp.name}, Employee Salary : {emp.salary}");  Console.ReadLine();  }  }  } |
| Output : |
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| 6. Create Employee class as shown below:  class Employee  {  public int id;  public string name;  public int salary;  }  now create employees array object and initialize with 5 employees  write code using  a. for loop  b. foreach loop  c. lambda expression. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace EmpArrayInit5Emp  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni.  \* Purpose : create employees array object and initialize with 5 employees using fo ,foreach, lamda.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("create employees array object and initialize with 5 employees using fo ,foreach, lamda. by Varun");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Employee[] emp = new Employee[]  {  new Employee(){id=123, name="Varun",salary=30000},  new Employee(){id=234, name="Ram",salary=20000},  new Employee(){id=345, name="Kiran",salary=40000},  new Employee(){id=456, name="Ravi",salary=20000},  new Employee(){id=567, name="Akash",salary=60000},  };  Console.WriteLine("Printing Output Using For Loop");  // using for loop  for(int i=0;i<emp.Length;i++)  {  Console.WriteLine($"Employee ID = {emp[i].id}, Employee Name = {emp[i].name}, Employee Salary = {emp[i].salary}");  }  Console.WriteLine("Printing Output Using Foreach Loop");  // using foreach loop  foreach (var e in emp)  {  Console.WriteLine($"Employee ID = {e.id}, Employee Name = {e.name}, Employee Salary = {e.salary}");  }  Console.WriteLine("Printing Outout Using Lamda Expression");  // using lamda expression  emp.ToList().ForEach(e => Console.WriteLine($"Employee ID = {e.id}, Employee Name = {e.name}, Employee Salary = {e.salary}"));  Console.ReadLine();  }  }  } |
| Output : |
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| 7. For the above project, write code to print employees who is getting salary >=5000 using  for loop  foreach loop  lambda expression. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace \_5EmpSalaryMore30000  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni.  \* Purpose : print employees who is getting salary >=30000 using for loop foreach loop lambda expression.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("print employees who is getting salary >=30000 using for loop foreach loop lambda expression by Varun");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Employee[] emp = new Employee[]  {  new Employee(){id=123, name="Varun",salary=30000},  new Employee(){id=234, name="Ram",salary=20000},  new Employee(){id=345, name="Kiran",salary=40000},  new Employee(){id=456, name="Ravi",salary=20000},  new Employee(){id=567, name="Akash",salary=60000},  };  Console.WriteLine("Printing Output Using For Loop");  // using for loop  for (int i = 0; i<emp.Length; i++)  {  if(emp[i].salary >= 30000 )  Console.WriteLine($"Employee ID = {emp[i].id}, Employee Name = {emp[i].name}, Employee Salary = {emp[i].salary}");  }  Console.WriteLine("Printing Output Using Foreach Loop");  // using foreach loop  foreach (var e in emp)  {  if(e.salary>=30000)  Console.WriteLine($"Employee ID = {e.id}, Employee Name = {e.name}, Employee Salary = {e.salary}");  }  Console.WriteLine("Printing Outout Using Lamda Expression");  // using lamda expression  emp.ToList().Where(e=>e.salary>=30000).ToList().ForEach(e => Console.WriteLine($"Employee ID = {e.id}, Employee Name = {e.name}, Employee Salary = {e.salary}"));  Console.ReadLine();  }  }  } |
| Output : |
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| 8. Similar to 6 and 7 projects create list of Customer and Product Arrays and practice for, foreach and lambda expression. |
| Code : |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace CusProArrayFFELloop  {  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author : Varun Sai Kumar Chegoni.  \* Purpose : print customer and product , product price >=5000 using for loop foreach loop lambda expression.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  public class Customer  {  public int cusid;  public string cusname;  public int cusno;  }  public class Product  {  public int proid;  public string proname;  public int proprice;  }  internal class Program  {  static void Main(string[] args)  {  Console.WriteLine("print customer and product , product price >=5000 using for loop foreach loop lambda expression by Varun");  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Customer[] cus = new Customer[]  {  new Customer(){cusid=123, cusname="Varun",cusno=123456},  new Customer(){cusid=234, cusname="Ravi",cusno=654321},  new Customer(){cusid=456, cusname="Kiran",cusno=123654},  };  Product[] pro = new Product[]  {  new Product(){proid=987, proname="xphone",proprice=10000},  new Product(){proid=876, proname="xwatch",proprice=5000},  new Product(){proid=765, proname="xshoes",proprice=4000},  };  Console.WriteLine("Printing Output Using For Loop");  // using for loop  for (int i = 0; i<cus.Length; i++)  {  Console.WriteLine($"Customer ID = {cus[i].cusid}, Customer Name = {cus[i].cusname}, Customer Contact = {cus[i].cusno}");  }  // Customer Print\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing Output Using Foreach Loop");  // using foreach loop  foreach (var c in cus)  {  Console.WriteLine($"Customer ID = {c.cusid}, Customer Name = {c.cusname}, Customer Contact = {c.cusno}");  }  Console.WriteLine("Printing Outout Using Lamda Expression");  // using lamda expression  cus.ToList().ForEach(c => Console.WriteLine($"Customer ID = {c.cusid}, Customer Name = {c.cusname}, Customer Contact = {c.cusno}"));  Console.ReadLine();  // Product Print\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing Output Using For Loop");  // using for loop  for (int i = 0; i<pro.Length; i++)  {  Console.WriteLine($"Product ID = {pro[i].proid}, Product Name = {pro[i].proname}, Product Price = {pro[i].proprice}");  }  Console.WriteLine("Printing Output Using Foreach Loop");  // using foreach loop  foreach (var p in pro)  {  Console.WriteLine($"Product ID = {p.proid}, Product Name = {p.proname}, Product Price = {p.proprice}");  }  Console.WriteLine("Printing Outout Using Lamda Expression");  // using lamda expression  pro.ToList().ForEach(p => Console.WriteLine($"Product ID = {p.proid}, Product Name = {p.proname}, Product Price = {p.proprice}"));    // Product Print >=5000 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing Output Using For Loop");  // using for loop  for (int i = 0; i<pro.Length; i++)  {  if (pro[i].proprice >= 5000)  Console.WriteLine($"Product ID = {pro[i].proid}, Product Name = {pro[i].proname}, Product Price = {pro[i].proprice}");  }  Console.WriteLine("Printing Output Using Foreach Loop");  // using foreach loop  foreach (var p in pro)  {  if (p.proprice>=5000)  Console.WriteLine($"Product ID = {p.proid}, Product Name = {p.proname}, Product Price = {p.proprice}");  }  Console.WriteLine("Printing Outout Using Lamda Expression");  // using lamda expression  pro.ToList().Where(p => p.proprice>=5000).ToList().ForEach(p => Console.WriteLine($"Product ID = {p.proid}, Product Name = {p.proname}, Product Price = {p.proprice}"));    Console.ReadLine();  }  }  } |
| Output : |
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