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| Day7 Morning Assignment  By  Ram Charan Patnala |

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| 1.Create Employee class with 3 variables and 2 methods and create object and call methods. |
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| Code: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project1  {  //Author: Rc  /\*Purpose:Create Employee class with 3 variables and 2 methods  and create object and call methods \*/  class Employee  {  // variable declaration  private int id;  private string name;  private int salary;  //methods declaration  public void ReadEmployee() //To read Employee data from user  {  Console.WriteLine("Enter id:");  id = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter name:");  name=Console.ReadLine();  Console.WriteLine("Enter salary:");  salary= Convert.ToInt32(Console.ReadLine());  }  public void PrintEmployee() //To print Employee data  {  Console.WriteLine($"id={id},name={name},salary={salary}");  }  }  internal class Program  {  static void Main(string[] args)  {  // object creation  Employee e = new Employee(); //e is object of Employee class  //calling methods using object  e.ReadEmployee();  e.PrintEmployee();  Console.ReadLine();  }  }  } |
| Output: |

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| 2.Write 3 definitions of class and 4 points about object discussed in the class. |
| Class:  1.A class is group of variables and methods.  2.A class is like a design to create objects.  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.Objects are reference type.  4.Objects occupy memory. |

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| 3.Pictorially represent class with multiple objects. |

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| 4.Create classes for:  -Customer  -Product  -Seller  -Department |
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| Code: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project2  {  //Author:Rc  /\*Purpose:create Classes:  \* customer  \* product  \* seller  \* department  \*/  class Customer //Class Declaration  {  //variable Declaration  private int cid;  private string cname;  private int cnumber;  //Methods Declaration  public void ReadCustomer() //To read input from user  {  Console.WriteLine("Enter Customer id:");  cid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Customername:");  cname = Console.ReadLine();  Console.WriteLine("Enter Customer mobile number:");  cnumber = Convert.ToInt32(Console.ReadLine());  }  public void PrintCustomer() //To print Customer data  {  Console.WriteLine($"CustomerId={cid}, Customername={cname}, Mobile number={cnumber}");  }  }  class Products //Class Declaration  {  //variable Declaration  private int pid;  private string pname;  private string pdes;  //Methods Declaration  public void ReadProduct() //To read input from user  {  Console.WriteLine("Enter Product id:");  pid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Productname:");  pname = Console.ReadLine();  Console.WriteLine("Enter Type of product:");  pdes = Console.ReadLine();  }  public void PrintProduct() //To print Product data  {  Console.WriteLine($"ProductId={pid}, Productname={pname}, ProductType={pdes}");  }  }  class Seller //Class Declaration  {  //variable Declaration  private int sid;  private string sname;  private int snumber;  //Methods Declaration  public void ReadCustomer() //To read input from user  {  Console.WriteLine("Enter Seller id:");  sid = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Seller name:");  sname = Console.ReadLine();  Console.WriteLine("Enter Seller mobile number:");  snumber = Convert.ToInt32(Console.ReadLine());  }  public void PrintCustomer() //To print Seller data  {  Console.WriteLine($"SellerId={sid}, Sellername={sname}, SellerMobile number={snumber}");  }  }  class Department //Class Declaration  {  //variable Declaration  private int did;  private string dname;  private int dnumber;  private string ddes;  //Methods Declaration  public void ReadCustomer() //To read input from user  {  Console.WriteLine("Enter Department id:");  did = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Department name:");  dname = Console.ReadLine();  Console.WriteLine("Enter Department mobile number:");  dnumber = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter Department Description: ");  ddes = Console.ReadLine();  }  public void PrintCustomer() //To print Department data  {  Console.WriteLine($" DepartmentId={did}, Departmentname={dname}, Mobile number={dnumber}, DepartmentDescription={ddes}");  }  }  internal class Program  {  static void Main(string[] args)  {  Customer a = new Customer();  a.ReadCustomer();  a.PrintCustomer();  Products b = new Products();  b.ReadProduct();  b.PrintProduct();  Seller c = new Seller();  c.ReadCustomer();  c.PrintCustomer();  Department i = new Department();  i.ReadCustomer();  i.PrintCustomer();  Console.ReadLine(); }  }  } |
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| Output: |

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| 5.Create Employee class with 3 public variables.  Create object and initialise with values and print them. |
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| Code: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project3  {  //Author:Rc  /\*Purpose:Create Employee class with 3 public variables.  \* Create Employee object and initialise while craeting and print values.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  class Employee //Class Declaration  {  //public variable declaration  public int id;  public string name;  public int age;  }  internal class Program  {  static void Main(string[] args)  {  //Object declaration with initialisation  Employee emp = new Employee() { id = 1, name = "rc", age = 22 };  Console.WriteLine($"id={emp.id},name={emp.name},age={emp.age}");  Console.ReadLine();  }  }  } |
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| Output: |

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| 6.Create the Employee class.  Now create employee array object and initialise with 5 values and write code using  For loop,  Foreach loop,  Lambda expression. |
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| Code: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project4  {  //Author: Rc  /\*\*Create Employee Class  \* create object and initialise with 5 values  \* and write code using for,foreach,lambda expression  \* \*\*\*\*\*/  class Employee //class declaration  {  //variables declaration  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  //object creation  Employee[] emp =new Employee[] //array object  {  //initialising object with values  new Employee() { id = 1, name = "rc", salary = 1200},  new Employee() { id = 2, name = "eswar", salary = 8000},  new Employee() { id = 3, name = "sai",salary = 4500},  new Employee() { id = 4, name = "pavan", salary = 5000},  new Employee() { id = 5, name = "chinna", salary = 2000}  };  //for loop  for(int i=0;i<emp.Length;i++)  {  Console.WriteLine($"id={emp[i].id},name={emp[i].name},salary={emp[i].salary}");  }  //foreach loop  foreach(var e in emp)  {  Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}");  }  //lambda expression  emp.ToList().ForEach(e => Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}"));  Console.ReadLine();  }  }  } |
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| Output: |

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| 7.For above project,  Write code to print employees who is getting salary >= 5000 using  For loop,  Foreach loop,  Lambda expression. |
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| Code: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project5  {  //Author: Rc  /\*\*Create Employee Class  \* create object and initialise with 5 values  \* and write code to print employees who is getting salary >=5000  \* using for,foreach,lambda expression  \* \*\*\*\*\*/  class Employee //class declaration  {  //variables declaration  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  //object creation  Employee[] emp = new Employee[] //array object  {  //initialising object with values  new Employee() { id = 1, name = "rc", salary = 1200},  new Employee() { id = 2, name = "eswar", salary = 8000},  new Employee() { id = 3, name = "sai",salary = 4500},  new Employee() { id = 4, name = "pavan", salary = 5000},  new Employee() { id = 5, name = "chinna", salary = 2000}  };  //for loop  for (int i = 0; i < emp.Length; i++)  {  if(emp[i].salary>=5000)  Console.WriteLine($"id={emp[i].id},name={emp[i].name},salary={emp[i].salary}");  }  //foreach loop  foreach (var e in emp)  {  if(e.salary>=5000)  Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}");  }  //lambda expression  emp.ToList().Where(e=>e.salary>=5000).ToList().ForEach(e => Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}"));  Console.ReadLine();  }  }  } |
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| Output: |

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| 8.Similar to 6 and 7 projects, create list of customers and products arrays and practice for,foreach and lambda expression. |
| Code for Class Customers: using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day7Project6  {  //Author: Rc  /\*\*Create Customer Class  \* create object and initialise with 5 values  \* and write code to print Custormers whose count>=4  \* using for,foreach,lambda expression  \* \*\*\*\*\*/  class Customer //class declaration  {  //variables declaration  public int id;  public string name;  public int count;  }  internal class Program  {  static void Main(string[] args)  {  //object creation  Customer[] c = new Customer[] //array object  {  //initialising object with values  new Customer() { id = 1, name = "rc", count=4},  new Customer() { id = 2, name = "eswar",count=1},  new Customer() { id = 3, name = "sai", count=3},  new Customer() { id = 4, name = "pavan",count=6},  new Customer() { id = 5, name = "chinna",count=5}  };  //for loop  for (int i = 0; i < c.Length; i++)  {  if (c[i].count>=4)  Console.WriteLine($"id={c[i].id},name={c[i].name},Customerarrived={c[i].count}");  }  //foreach loop  foreach (var e in c)  {  if (e.count>=4)  Console.WriteLine($"id={e.id},name={e.name},Customerarrived={e.count}");  }  //lambda expression  c.ToList().Where(e => e.count>=4).ToList().ForEach(e => Console.WriteLine($"id={e.id},name={e.name},Customerarrived={e.count}"));  Console.ReadLine();  }  }  } |
| Output for Customers Class: |
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| Code for Products class: |
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