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| Feb 1st Morning Assignment  By Surya Teja Chandolu |

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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;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create Employee class with three variables and two methods ReadEmployee and PrintEmployee and create an object and call methods.  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace Employee  {  class Employee  {  public int id;  public string name;  public int salary;  public void ReadData()  {  Console.Write("Enter Employee Id: ");  id = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Employee Name: ");  name = Console.ReadLine();  Console.Write("Enter Employee Salary: ");  salary = Convert.ToInt32(Console.ReadLine());  }  public void PrintData()  {  Console.WriteLine($"\nEmployee Id: {id}, Employee Name: {name}, Employee Salary: {salary}.");  }  }  internal class Program  {  static void Main(string[] args)  {  Employee emp = new Employee();  emp.ReadData();  emp.PrintData();  Console.ReadLine();  }  }  } |
| Output: |
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| 1. Write the 3 def of class and 4 points about object discussed in the class. |
| Class: |
| * Class is group of variables and methods. * Class is blue print to create objects. * Class consists of state and behaviour. |
| Object: |
| * Object is an instance of class. * Class can have many number of objects. * Object occupy memory. * Object are reference type. |

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| 1. Pictorially represent class and multiple objects |
| User 3  User 2  User 1  Account Number  Account Name  Balance  Bank |

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| 1. Create below classes:  * Customer * Product * Seller * Department |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create below classes:  • Customer  • Product  • Seller  • Department  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace Shopping  {  class Customer  {  private int customerId;  private string customerName;  private string customerEmail;  public void ReadCustomerData()  {  Console.Write("Enter Customer Id: ");  customerId = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Customer Name: ");  customerName = Console.ReadLine();  Console.Write("Enter Customer Email: ");  customerEmail = Console.ReadLine();  }  public void PrintCustomerData()  {  Console.WriteLine($"\nCustomer Id: {customerId}, Customer Name: {customerName}, Customer Email: {customerEmail}.");  }  }  class Product  {  private string productName;  private int productPrice;  private string productType;  public void ReadProductData()  {  Console.Write("Enter Product Name: ");  productName = Console.ReadLine();  Console.Write("Enter Product Price: ");  productPrice = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Product Type: ");  productType = Console.ReadLine();  }  public void PrintProductData()  {  Console.WriteLine($"\nProduct Name: {productName}, Product Price: {productPrice}, Product Type: {productType}.");  }  }  class Seller  {  private int sellerId;  private string sellerName;  private string sellerAddress;  public void ReadSellerData()  {  Console.Write("Enter Seller Id: ");  sellerId = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Seller Name: ");  sellerName = Console.ReadLine();  Console.Write("Enter Seller Adderss: ");  sellerAddress = Console.ReadLine();  }  public void PrintSellerData()  {  Console.WriteLine($"\nSeller Id: {sellerId}, Seller Name: {sellerName}, Seller Address: {sellerAddress}.");  }  }  class Department  {  private int departmentId;  private string departmentName;  private string departmentType;  public void ReadDepartmentData()  {  Console.Write("Enter Department Id: ");  departmentId = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Department Name: ");  departmentName = Console.ReadLine();  Console.Write("Enter Department Type: ");  departmentType = Console.ReadLine();  }  public void PrintDepartmentData()  {  Console.WriteLine($"\nDepartment Id: {departmentId}, Department Name: {departmentName}, Department Type: {departmentType}.");  }  }  internal class Program  {  static void Main(string[] args)  {  Customer cm = new Customer();  Console.WriteLine("----------Customer Details----------");  cm.ReadCustomerData();  cm.PrintCustomerData();  Product pd = new Product();  Console.WriteLine("\n----------Product Details----------");  pd.ReadProductData();  pd.PrintProductData();  Seller sl = new Seller();  Console.WriteLine("\n----------Seller Details----------");  sl.ReadSellerData();  sl.PrintSellerData();  Department dp = new Department();  Console.WriteLine("\n----------Department Details----------");  dp.ReadDepartmentData();  dp.PrintDepartmentData();  Console.ReadLine();  }  }  } |
| Output: |
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| 1. Create Employee class with 3 public variables. Create Employee object and initialize with values while creating object and print the values. |
| Code: |
| using System;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create Employee class with 3 public variables. Create Employee object and initialize with values while creating object and print the values.  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace EmployeeDetails  {  class Employee  {  public int id;  public string name;  public int age;  public int salary;  public void ReadData()  {  Console.Write("Enter Employee Id: ");  id = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Employee Name: ");  name = Console.ReadLine();  Console.Write("Enter Employee Age: ");  age = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Employee Salary: ");  salary = Convert.ToInt32(Console.ReadLine());  }  public void PrintData()  {  Console.WriteLine($"\nEmployee Id: {id}, Employee Name: {name}, Employee Age: {age}, Employee Salary: {salary}.");  }  }  internal class Program  {  static void Main(string[] args)  {  Employee e = new Employee() { id = 2, name = "Surya", age = 22, salary = 2000 };  Console.WriteLine($"Employee Id: {e.id}, Employee Name: {e.name}, Employee Age: {e.age}, Employee Salary: {e.salary}.");  Console.ReadLine();  }  }  } |
| Output: |
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| 1. 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;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create Employee class and create employees array object and initialize with 5 employees write code using  a. for loop  b. foreach loop  c. lambda expressions  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace PrintDataUsingLoops  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Employee[] emp = new Employee[]  {  new Employee() { id = 1, name = "Surya", salary = 2000 },  new Employee() { id = 2, name = "Bhanu", salary = 3000 },  new Employee() { id = 3, name = "Prudhvi", salary = 4000 },  new Employee() { id = 4, name = "Ram Charan", salary = 5000 },  new Employee() { id = 5, name = "Joe", salary = 6000 }  };  Console.WriteLine("----------ForLoop----------");  for (int i = 0; i < emp.Length; i++)  Console.WriteLine($"\nEmployee id: {emp[i].id}, Employee Name: {emp[i].name}, Employee Salary: {emp[i].salary}.");  Console.WriteLine("\n----------ForEachLoop----------");  foreach (Employee e in emp)  Console.WriteLine($"\nEmployee id: {e.id}, Employee Name: {e.name}, Employee Salary: {e.salary}.");  Console.WriteLine("\n----------LambdaExpression----------");  emp.ToList().ForEach(e => Console.WriteLine($"\nEmployee id: {e.id}, Employee Name: {e.name}, Employee Salary: {e.salary}."));  Console.ReadLine();  }  }  } |
| Output: |
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| 1. For the above project, write code to print employees who is getting salary >=5000 using 2. for loop 3. foreach loop 4. lambda expression |
| Code: |
| using System;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create Employee class and create employees array object and initialize with 5 employees and print who is getting salary >=5000 using  a. for loop  b. foreach loop  c. lambda expressions  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace PrintDataUsingLoops  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Employee[] emp = new Employee[]  {  new Employee() { id = 1, name = "Surya", salary = 10000 },  new Employee() { id = 2, name = "Bhanu", salary = 8000 },  new Employee() { id = 3, name = "Prudhvi", salary = 6000 },  new Employee() { id = 4, name = "Ram Charan", salary = 4000 },  new Employee() { id = 5, name = "Joe", salary = 2000 }  };  Console.WriteLine("----------ForLoop----------");  for (int i = 0; i < emp.Length; i++)  {  if(emp[i].salary >= 5000)  Console.WriteLine($"\nEmployee id: {emp[i].id}, Employee Name: {emp[i].name}, Employee Salary: {emp[i].salary}.");  }  Console.WriteLine("\n----------ForEachLoop----------");  foreach (Employee e in emp)  {  if(e.salary >= 5000)  Console.WriteLine($"\nEmployee id: {e.id}, Employee Name: {e.name}, Employee Salary: {e.salary}.");  }  Console.WriteLine("\n----------LambdaExpression----------");  emp.ToList().Where(e => e.salary >= 5000).ToList().ForEach(e => Console.WriteLine($"\nEmployee id: {e.id}, Employee Name: {e.name}, Employee Salary: {e.salary}."));  Console.ReadLine();  }  }  } |
| Output: |
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| 1. Similar to 6 and 7 projects create list of Customer and Product Arrays and practice a. 2. For 3. Foreach 4. lambda expression |
| Code: |
| using System;  /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \* Author: Surya Teja  \* Purpose: Create list of Customer and Product Arrays and practice a.  a. For  b. Foreach  c. lambda expression  \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  namespace LoopsPractice  {  class Customer  {  public int customerId;  public string customerName;  public string customerEmail;  }  class Product  {  public string productName;  public int productPrice;  public string productBrand;  }  internal class Program  {  static void Main(string[] args)  {  Customer[] cm = new Customer[]  {  new Customer(){ customerId = 1, customerName = "Surya", customerEmail = "Surya@gmail"},  new Customer(){ customerId = 2, customerName = "Bhanu", customerEmail = "Bhanu@gmail"},  new Customer(){ customerId = 3, customerName = "Prudhvi", customerEmail = "Prudhvi@gmail"},  new Customer(){ customerId = 4, customerName = "Ram Charan", customerEmail = "RamCharan@gmail"},  new Customer(){ customerId = 5, customerName = "Joe", customerEmail = "Joe@gmail"}  };  Product[] pm = new Product[]  {  new Product(){ productName = "Shoes", productPrice = 5000, productBrand = "Nike"},  new Product(){ productName = "Mobile", productPrice = 50000, productBrand = "Samsung"},  new Product(){ productName = "Laptop", productPrice = 100000, productBrand = "Dell"},  new Product(){ productName = "Watch", productPrice = 15000, productBrand = "GShock"},  new Product(){ productName = "Cap", productPrice = 2000, productBrand = "Adidas"}  };  Console.WriteLine("\n----------ForLoop-----Customer----------");  for (int i = 0; i < cm.Length; i++)  Console.WriteLine($"\nCustomer Id: {cm[i].customerId}, Customer Name: {cm[i].customerName}, Customer Email: {cm[i].customerEmail}.");  Console.WriteLine("\n----------ForLoop-----Product----------");  for (int i = 0; i < pm.Length; i++)  Console.WriteLine($"\nProduct Name: {pm[i].productName}, Product Price: {pm[i].productPrice}, Product Brand: {pm[i].productBrand}.");  Console.WriteLine("\n----------ForEachLoop-----Customer----------");  foreach (var c in cm)  Console.WriteLine($"\nCustomer Id: {c.customerId}, Customer Name: {c.customerName}, Customer Email: {c.customerEmail}.");  Console.WriteLine("\n----------ForEachLoop-----Product----------");  foreach (var p in pm)  Console.WriteLine($"\nProduct Name: {p.productName}, Product Price: {p.productPrice}, Product Brand: {p.productBrand}.");  Console.WriteLine("\n----------LambdaExpression-----Customer----------");  cm.ToList().ForEach(c => Console.WriteLine($"\nCustomer Id: {c.customerId}, Customer Name: {c.customerName}, Customer Email: {c.customerEmail}."));  Console.WriteLine("\n----------LambdaExpression-----Product----------");  pm.ToList().ForEach(p => Console.WriteLine($"\nProduct Name: {p.productName}, Product Price: {p.productPrice}, Product Brand: {p.productBrand}."));  Console.ReadLine();  }  }  } |
| Output: |
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