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| Day7 Morning Assignment  By  Anusha Bellala |

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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 ConsoleApp1  {  class Employee  {  public int id;  public string name;  public int salary;  public void ReadEmployee()  {  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()  {  Console.WriteLine($"Id={id},Name ={name},Salary={salary}");  Console.WriteLine();  }  }  internal class Program  {  static void Main(string[] args)  {  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. |
| Class:   * A class is group of variables and methods. * A class is like a design to create objects. * A class consists of state and behavior.   Object:   * An object is an instance of a class. * We can create any number of objects. * Objects occupy memory. * Objects are reference type. |

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| 3. Pictorially represent class and multiple objects |
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| 4.)Create Class  1.)Customer Class |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp2  {  class Customer  {  public int id;  public string name;  public int age;  public void ReadCustomer()  {  Console.WriteLine("Enter id:");  id = Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter name:");  name = Console.ReadLine();  Console.WriteLine("Enter age:");  age = Convert.ToInt32(Console.ReadLine());  }  public void PrintCustomer()  {  Console.WriteLine($"Id={id},Name={name},Age={age}");  }  }  internal class Program  {  static void Main(string[] args)  {  Customer c = new Customer();  c.ReadCustomer();  c.PrintCustomer();  Console.ReadLine();  }  }  } |
| Ouput: |
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| 2.)Product Class |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp3  {  class Product  {  public int id;  public string name;  public string brand;    public void ReadProduct()  {  Console.WriteLine("Enter id:");  id=Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter name:");  name =Console.ReadLine();  Console.WriteLine("Enter brand:");  brand = Console.ReadLine();  }  public void PrintProduct()  {  Console.WriteLine("Id={0},Name={1},Brand={2}",id,name,brand);  }    }  internal class Program  {  static void Main(string[] args)  {  Product p = new Product();  p.ReadProduct();  p.PrintProduct();  Console.ReadLine();  }  }  } |
| Output: |

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| 3.)Seller Class |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp4  {  class Seller  {  public int id;  public string name;  public string emailid;  public void ReadSeller()  {  Console.WriteLine("Enter id:");  id=Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter name:");  name = Console.ReadLine();  Console.WriteLine("Enter mobileno:");  emailid= Console.ReadLine();  }  public void PrintSeller()  {  Console.WriteLine($"Id={id},Name={name},Emailid={emailid}");  }  }  internal class Program  {  static void Main(string[] args)  {  Seller s = new Seller();  s.ReadSeller();  s.PrintSeller();  Console.ReadLine();  }  }  } |
| Ouput: |

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| 4.)Department Class |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp5  {  class Department  {  public int id;  public string name;  public int staff;    public void ReadDepartment()  {  Console.WriteLine("Enter id:");  id=Convert.ToInt32(Console.ReadLine());  Console.WriteLine("Enter name of department:");  name = Console.ReadLine();  Console.WriteLine("Enter no. of staff in the department:");  staff =Convert.ToInt32(Console.ReadLine());  }  public void PrintDepartment()  {  Console.WriteLine($"Id={id},Name={name},Staff={staff}");  }    }  internal class Program  {  static void Main(string[] args)  {  Department d = new Department();  d.ReadDepartment();  d.PrintDepartment();  Console.ReadLine();  }  }  } |
| Output: |

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| 5. Create Employee class with 3 public variables.  Create Employee object and initialize with values while creating object and print the values. |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp6  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Employee employee = new Employee() { id = 1, name = "Anusha", salary = 7000 };  Console.WriteLine($"id={employee.id},name={employee.name},salary={employee.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;  } |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp6  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Employee[] employees = new Employee[]  {  new Employee(){id=1,name="anu",salary=4500},  new Employee(){id=2,name="madhu",salary=5000},  new Employee(){id=3,name="prem",salary=6000},  new Employee(){id=4,name="sindhu",salary=8000},  new Employee(){id =5,name="vyshu",salary=3000}  };  //for loop  for(int i=0;i<employees.Length;i++)  {  Console.WriteLine($"Id={employees[i].id},Name={employees[i].name},Salary={employees[i].salary}");  }  //foreach loop  foreach(var e in employees)  {  Console.WriteLine($"Id={e.id},Name={e.name},Salary={e.salary}");  }  //Lambda Expression  employees.ToList().ForEach(e=>Console.WriteLine($"Id={e.id},Name={e.name},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 ConsoleApp6  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  Employee[] employees = new Employee[]  {  new Employee(){id=1,name="anu",salary=4500},  new Employee(){id=2,name="madhu",salary=5000},  new Employee(){id=3,name="prem",salary=6000},  new Employee(){id=4,name="sindhu",salary=8000},  new Employee(){id =5,name="vyshu",salary=3000}  };  //for loop  for (int i = 0; i < employees.Length; i++)  {  if(employees[i].salary>=5000)  Console.WriteLine($"Id={employees[i].id},Name={employees[i].name},Salary={employees[i].salary}");  }  //foreach loop  foreach (var e in employees)  {  if(e.salary>=5000)  Console.WriteLine($"Id={e.id},Name={e.name},Salary={e.salary}");  }  //Lambda Expression  employees.ToList().Where(e=>e.salary>=5000).ToList().ForEach(e => Console.WriteLine($"Id={e.id},Name={e.name},Salary={e.salary}"));    Console.ReadLine();  }  }  } |
| Ouput: |

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| 8.) now create products array object and initialize with 5 peroducts  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 ConsoleApp7  {  class Product  {  public int id;  public string name;  public string brand;  }  internal class Program  {  static void Main(string[] args)  {  Product[] products = new Product[]  {  new Product(){ id = 1, name ="laptop",brand="dell"},  new Product(){ id = 2, name ="washingmachine",brand ="LG"},  new Product(){ id = 3, name ="TV",brand="samsung"},  new Product(){id = 4, name ="mobile",brand="oneplus"}  };  //for loop  for(int i=0;i<products.Length;i++)  {  Console.WriteLine($"Id={products[i].id},Name={products[i].name},Brand={products[i].brand}");  }  //foreach loop  foreach(var p in products)  {  Console.WriteLine($"Id={p.id},Name={p.name},Brand={p.brand}");  }  //lambda Expression  products.ToList().ForEach(p => Console.WriteLine($"Id={p.id},Name={p.name},Brand={p.brand}"));  Console.ReadLine();  }  }  } |
| Output: |