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| C# OOP’s Concept  By Nalli\_Prudhvi  NB\_HEALTH\_CARE\_TECH |

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| Q1. employee class with 3 var and 2 methods, create objects and print them. |
| Code: |
| internal class employe  {  private int employeID;  private string employeName;  private string employeDesignation;  public void Employe\_data()  {  Console.Write("Enter your Id\_no :");  employeID = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter your Name :");  employeName = Console.ReadLine();  Console.Write("Enter your Designation :");  employeDesignation = Console.ReadLine();  Console.WriteLine();  }  public void Employe\_print\_data()  {  Console.WriteLine($"Hello {employeName}");  Console.WriteLine($"your id\_no : {employeID}");  Console.WriteLine($"your designation : {employeDesignation}");  Console.WriteLine();  }  }  static void Main(string[] args)  {/\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: Employe class with 3 var and 2 methods, create objects and print \* \* them. \*  \*\* \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  var emp1 = new employe();  var emp2 = new employe();  var emp3 = new employe();  emp1.Employe\_data();  emp2.Employe\_data();  emp3.Employe\_data();  emp1.Employe\_print\_data();  emp2.Employe\_print\_data();  emp3.Employe\_print\_data();  Console.Read();      } |
| Output: |
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| 2 Q. write 3 Def. of class and 4 points about object discussed in class |
| Answer:  Class: |
| 1. A class is group of variables and method. 2. A class is like a design to create objects. 3. A class consists of state and behavior. |
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| Object |
| 1. Object is instance of class. 2. We can create any number of Objects 3. An object occupy memory. 4. Objects are reference type. |

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| 3Q. Write classes for : customer, product, seller, department. |
| Code: |
| internal class Program  {  static void Main(string[] args)  {/\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: Write classes for : customer, product, seller, department. \* \* them. \*  \*\* \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  var cust1 = new Customer();  var product1 = new Product();  var Dept1 = new Department();  var Seller1 = new Seller();  cust1.Customer\_data();  cust1.Customer\_print\_data();  product1.Product\_data();  product1.Product\_print\_data();  Dept1.Department\_data();  Dept1.Department\_print\_data();  Seller1.Seller\_data();  Seller1.Seller\_print\_data();  Console.ReadLine();  }  }  internal class Customer  {  private int CustomerID;  private string CustomerName;  private string CustomerEmail;  public void Customer\_data()  {  Console.Write("Enter your CustomerID :");  CustomerID = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter your CustomerName :");  CustomerName = Console.ReadLine();  Console.Write("Enter your CustomerEmailID :");  CustomerEmail = Console.ReadLine();  Console.WriteLine();  }  public void Customer\_print\_data()  {  Console.WriteLine($"your name : {CustomerName}");  Console.WriteLine($"your id\_no : {CustomerID}");  Console.WriteLine($"your EmailId : {CustomerEmail}");  Console.WriteLine();  }  }  internal class Product  {  private int Product\_Price;  private string Product\_Brand;  private string Product\_Series;  public void Product\_data()  {  Console.Write("Enter your Product\_Price :");  Product\_Price = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter your Product\_Brand :");  Product\_Brand = Console.ReadLine();  Console.Write("Enter your Product\_Series :");  Product\_Series = Console.ReadLine();  Console.WriteLine();  }  public void Product\_print\_data()  {  Console.WriteLine($"your Product\_Price : {Product\_Price}");  Console.WriteLine($"your Product\_Brand : {Product\_Brand}");  Console.WriteLine($"your Product\_Series : {Product\_Series}");  Console.WriteLine();  }  }  internal class Seller  {  private int Seller\_Id;  private string Seller\_Name;  private string Seller\_contact;  public void Seller\_data()  {  Console.Write("Enter Seller\_Id :");  Seller\_Id = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter Seller\_Name :");  Seller\_Name = Console.ReadLine();  Console.Write("Enter Seller\_contact :");  Seller\_contact = Console.ReadLine();  Console.WriteLine();  }  public void Seller\_print\_data()  {  Console.WriteLine($"Seller\_Id : {Seller\_Id}");  Console.WriteLine($"Seller\_Name : {Seller\_Name}");  Console.WriteLine($"Seller\_contact : {Seller\_contact}");  Console.WriteLine();  }  }  internal class Department  {  private int DeptID;  private string DeptNumber;  private string DeptType;  public void Department\_data()  {  Console.Write("Enter your Id\_no :");  DeptID = Convert.ToInt32(Console.ReadLine());  Console.Write("Enter your Name :");  DeptNumber = Console.ReadLine();  Console.Write("Enter your Designation :");  DeptType = Console.ReadLine();  Console.WriteLine();  }  public void Department\_print\_data()  {  Console.WriteLine($"This is dept. ID : {DeptID}");  Console.WriteLine($"This is dept. Number : {DeptNumber}");  Console.WriteLine($"This is dept. Type : {DeptType}");  Console.WriteLine();  }  } |
| Output : |
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| 4Q. To create class with 3 var and initializing the values with the object and print them. |
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| internal class Employee  {  public int Employee\_ID;  public string Employee\_name;  public int Employee\_age;  public int Employee\_salary;  public void Employee\_Data()  {  Console.WriteLine($"your name :{Employee\_ID}");    Console.WriteLine($"Employee\_ID :{Employee\_name}");    Console.WriteLine($"Employee\_age :{Employee\_age}");    Console.WriteLine($"Employee\_age :{Employee\_salary}");    }  }  internal class Program  {  static void Main(string[] args)  {/\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: To create calss with 3 var and initializing the values with in \*  \*\* the object and print them. \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  var emp1 = new Employee() { Employee\_ID = 123, Employee\_name = "shaw", Employee\_age = 34, Employee\_salary = 400000 };  emp1.Employee\_Data();  Console.ReadLine();  }  } |
| Output : |
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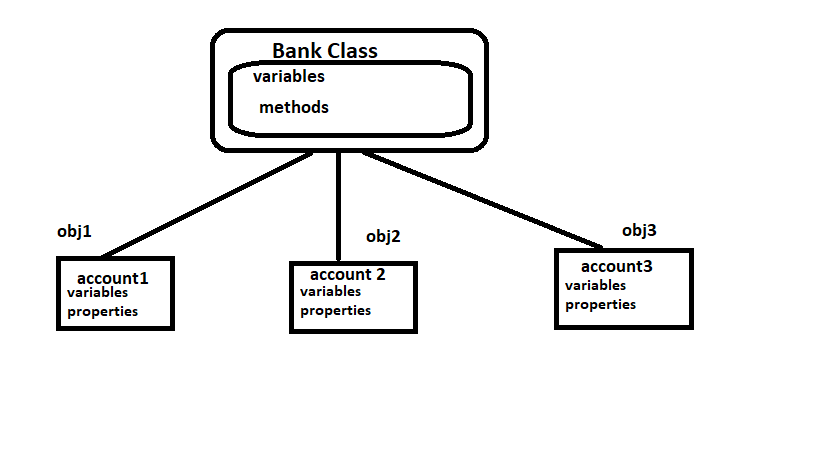
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| 5Q. To create class with 3 var and create employees array object initialize the values of 5 employees. |
| Code: |
| internal class Employee  {  public int Employee\_ID;  public string Employee\_name;  public int Employee\_salary;  }  internal class Program  {  static void Main(string[] args)  {  /\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: To create calss with 3 var and create employees array object and \*  \*\* initialize the values of 5 employees. \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  //\*\*\*\*\*\*\*\*\*\*\_\_Array\_Declaration\_\_\*\*\*\*\*\*\*\*\*\*\*  Employee[] emp\_b1 = new Employee[]{  new Employee(){ Employee\_ID = 123, Employee\_name = "shaw", Employee\_salary = 400000 },  new Employee(){ Employee\_ID = 124, Employee\_name = "doc", Employee\_salary = 500000 },  new Employee(){ Employee\_ID = 125, Employee\_name = "wong", Employee\_salary = 600000 },  new Employee(){ Employee\_ID = 126, Employee\_name = "vision", Employee\_salary = 700000 },  new Employee(){ Employee\_ID = 127, Employee\_name = "zanday", Employee\_salary = 800000 },  };  //\*\*\*\*\*\*\*\*\*\*\*\*\*for loop\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with for loop");  for(int i =0; i<emp\_b1.Length;i++)  {  Console.WriteLine($"Employee\_ID: {emp\_b1[i].Employee\_ID},Employee\_Name : {emp\_b1[i].Employee\_name},Employee\_salary : {emp\_b1[i].Employee\_salary}");  }  Console.WriteLine("Printing objects with foreach loop");  //\*\*\*\*\*\*\*\*\*\*\*\*\*for\_each loop?\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  foreach (var e in emp\_b1)  {  Console.WriteLine($"Employee\_ID: {e.Employee\_ID},Employee\_Name : {e.Employee\_name},Employee\_salary : {e.Employee\_salary}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*lambda expressions\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with lambda expression");  emp\_b1.ToList().ForEach(f => Console.WriteLine($"Employee\_ID: {f.Employee\_ID},Employee\_Name : {f.Employee\_name},Employee\_salary : {f.Employee\_salary}"));  Console.ReadLine();  }  } |
| Output: |
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| Q6. To create calss with 3 var and create employees array object and intialize the values of 5 employees. |
| Code: |
| amespace Day\_7\_Project\_5  {  internal class Employee  {  public int Employee\_ID;  public string Employee\_name;  public int Employee\_salary;  }  internal class Program  {  static void Main(string[] args)  {  /\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: To create calss with 3 var and create employees array object \*  \*\* and intialize the values of 5 employees. \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/    Employee[] emp\_b1 = new Employee[]{  new Employee(){ Employee\_ID = 123, Employee\_name = "shaw", Employee\_salary = 4000 },  new Employee(){ Employee\_ID = 124, Employee\_name = "doc", Employee\_salary = 500000 },  new Employee(){ Employee\_ID = 125, Employee\_name = "wong", Employee\_salary = 6000 },  new Employee(){ Employee\_ID = 126, Employee\_name = "vision", Employee\_salary = 3000 },  new Employee(){ Employee\_ID = 127, Employee\_name = "zanday", Employee\_salary = 2000 },  };  //\*\*\*\*\*\*\*\*\*\*\*\*\*for loop\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with for loop");  for (int i = 0; i < emp\_b1.Length; i++)  {  if (emp\_b1[i].Employee\_salary >= 5000)  Console.WriteLine($"Employee\_ID: {emp\_b1[i].Employee\_ID},Employee\_Name : {emp\_b1[i].Employee\_name},Employee\_salary : {emp\_b1[i].Employee\_salary}");  }  Console.WriteLine("Printing objects with foreach loop");  //\*\*\*\*\*\*\*\*\*\*\*\*\*for\_each loop?\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  foreach (var e in emp\_b1)  {  if(e.Employee\_salary>=5000)  Console.WriteLine($"Employee\_ID: {e.Employee\_ID},Employee\_Name : {e.Employee\_name},Employee\_salary : {e.Employee\_salary}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*lambda expressions\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with lambda expression");  emp\_b1.ToList().Where(f => f.Employee\_salary >= 5000).ToList().ForEach(f => Console.WriteLine($"Employee\_ID: {f.Employee\_ID},Employee\_Name : {f.Employee\_name},Employee\_salary : {f.Employee\_salary}"));  Console.ReadLine();  }  }  } |
| Output: |
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| Q7. To create calss of cutomer and product similar to above projects |
| Code: |
| internal class Product  {  public int Product\_ID;  public string Product\_name;  public int Product\_prize;  }  internal class Program  {  static void Main(string[] args)  {  /\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \*\*  \* \* \*Author : Nalli\_Prudhvi \* \* \*  \* \* \*Purpose: To create calss of cutomer and product similar to above projects \*  \*\* \*\* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  Console.WriteLine("Printing objects with Product class");  Product[] cust\_b1 = new Product[]{  new Product(){ Product\_ID = 123, Product\_name = "shoes", Product\_prize = 4000 },  new Product(){ Product\_ID = 124, Product\_name = "watch", Product\_prize = 500000 },  new Product(){ Product\_ID = 125, Product\_name = "trouser", Product\_prize = 6000 },  new Product(){ Product\_ID = 126, Product\_name = "shirt", Product\_prize = 3000 },  new Product(){ Product\_ID = 127, Product\_name = "acessories", Product\_prize = 2000 },  };  //\*\*\*\*\*\*\*\*\*\*\*\*\*for loop\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with for loop");  for (int i = 0; i < cust\_b1.Length; i++)  {  Console.WriteLine($"Product\_ID: {cust\_b1[i].Product\_ID},Product\_name : {cust\_b1[i].Product\_name},Product\_prize : {cust\_b1[i].Product\_prize}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*for\_each loop?\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with foreach loop");  foreach (var e in cust\_b1)  {  Console.WriteLine($"Product\_ID: {e.Product\_ID},Product\_name : {e.Product\_name},Product\_prize : {e.Product\_prize}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*lambda expressions\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with lambda expression");  cust\_b1.ToList().ForEach(f => Console.WriteLine($"Product\_ID: {f.Product\_ID},Product\_name : {f.Product\_name},Product\_prize : {f.Product\_prize}"));  Console.ReadLine();  Console.WriteLine("Printing objects with Customer class");  Customer[] cust\_b2 = new Customer[]{  new Customer(){ Customer\_ID = 123, Customer\_name = "shoes", Customer\_contact = 4000 },  new Customer(){ Customer\_ID = 124, Customer\_name = "watch",Customer\_contact = 500000 },  new Customer(){ Customer\_ID = 125, Customer\_name = "trouser", Customer\_contact = 6000 },  new Customer(){ Customer\_ID = 126, Customer\_name = "shirt",Customer\_contact = 3000 },  new Customer(){ Customer\_ID = 127, Customer\_name = "acessories", Customer\_contact = 2000 },  };  //\*\*\*\*\*\*\*\*\*\*\*\*\*for loop\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with for loop");  for (int i = 0; i < cust\_b1.Length; i++)  {  Console.WriteLine($"Customer\_ID: {cust\_b2[i].Customer\_ID},Customer\_name : {cust\_b2[i].Customer\_name},Customer\_contact : {cust\_b2[i].Customer\_contact}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*for\_each loop?\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  foreach (var e in cust\_b2)  {  Console.WriteLine($"Product\_ID: {e.Customer\_ID},Product\_name : {e.Customer\_name},Product\_prize : {e.Customer\_contact}");  }  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*lambda expressions\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Console.WriteLine("Printing objects with lambda expression");  cust\_b2.ToList().ForEach(f=>Console.WriteLine($"Product\_ID: {f.Customer\_ID},Product\_name : {f.Customer\_name},Product\_prize : {f.Customer\_contact}"));  Console.ReadLine();  }  } |
| Output: |
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| Q8.Pictorial class representation |

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| THANK YOU |