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| **DAY 8 Assignment**  **By**  **Nanam Vaishnavi**   1. **FeB 2022** |

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| **1.Declare and initialize a list with 8 values. write for loop, foreach loop, lambda, linq query to print even numbers** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace Day8Project1  {  internal class Program  {  static void Main(string[] args)  {  List<int> data = new List<int>() { 56, 45, 44, 37, 55, 60, 78 };  Console.WriteLine("======================================");  // for loop  for (int i=0;i<data.Count;i++)  {  if (data[i] % 2 == 0)  Console.WriteLine(data[i]);  }  Console.WriteLine("======================================");  // foreach loop  foreach(var d in data)  {  if(d%2==0)  Console.WriteLine(d);  }  Console.WriteLine("======================================");  // Lambda Expression  data.Where(d=>d%2==0).ToList().ForEach(e => Console.WriteLine(e));  Console.WriteLine("======================================");  // LinQ  var res = from d in data  where d % 2 == 0  select d;  res.ToList().ForEach(e => Console.WriteLine(e));  Console.WriteLine("======================================");  Console.ReadLine();    }  }  } |
| **OUTPUT :** |
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| **2. Create a class Employee with three variables as discussed in the class and create a list of Employees**  **public int id;**  **public string name;**  **public int salary;**  **write**  **for loop**  **foreach loop**  **lambda expression**  **linq query** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  // AUTHOR : Nanam Vaishnavi  // Purpose : List of employees  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day8Project2  {  class Employee  {  public int id;  public string name;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  List<Employee> employees = new List<Employee>()  {  new Employee() {id=501, name ="Vaishnavi", salary=5000},  new Employee() {id=502, name="Rathika", salary=4000},  new Employee() {id=503, name="Prashanth", salary=8000 },  new Employee() {id=504, name ="Sushma", salary=6000},  new Employee() {id=505, name ="Abhiram", salary=3000},  };  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // forloop  for (int i=0; i<employees.Count; i++)  {  Console.WriteLine($"id={employees[i].id}, name={employees[i].name}, salary={employees[i].salary}");  }  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // foreach  foreach (var e in employees)  {  Console.WriteLine($"id={e.id}, name={ e.name}, salary={e.salary}");  }  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // Lambda Expression  employees.ToList().ForEach(e => Console.WriteLine($"id={e.id}, name={e.name}, salary={e.salary}"));  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // LinQ  var result = from e in employees  select e;  result.ToList().ForEach(e => Console.WriteLine($"id={e.id}, name={e.name}, salary={e.salary}"));  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Console.ReadLine();  }  }  } |
| **OUTPUT** |
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| **3. Create a class Product and add variable: id, name, price, brand**  **print product (name and brand) whose price is more than 500**  **using for loop, foreach loop, lambda, linq query** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  //Author : Nanam Vaishnavi  //Purpose : class Product using 4 loops.  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day8Project3  {  class Product  {  public int id;  public string name;  public int price;  public string brand;  }  internal class Program  {  static void Main(string[] args)  {  List<Product> product = new List<Product>()  {  new Product() {id=1, name = "TouchPen", price = 400, brand="ELV Direct" },  new Product(){id=2, name = "Bluetooth", price = 500, brand= "Oneplus Bullets" },  new Product(){id=3, name = "Mouse", price=1000, brand = "Razer" },  new Product(){id=4, name = "Headsets", price=600, brand="Apple" },  new Product(){id=5, name = "Keyboard", price=900, brand="H.P" },  };    Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // forloop  for (int i = 0; i < product.Count; i++)  {  if (product[i].price > 500)  Console.WriteLine($"id={product[i].id}, name={product[i].name}, price={product[i].price}, Brand={product[i].brand}");  }  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  //foreach loop  foreach(var p in product)  {  if (p.price > 500)  Console.WriteLine($"id={p.id},name={p.name}, Price={p.price}, Brand={p.brand}");  }  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  //Lambda Expression  product.ToList().Where(p=>p.price>500).ToList().ForEach(p=>Console.WriteLine($"id={p.id},name={p.name}, Price={p.price}, Brand={p.brand}"));  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  // LinQ  var result = from p in product  where p.price > 500  select p;  result.ToList().ForEach(p => Console.WriteLine($"id={p.id},name={p.name}, Price={p.price}, Brand={p.brand}"));  Console.WriteLine("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  Console.ReadLine();  }  }  } |
| **OUTPUT** |
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| **4. Create a Department class and add variables**  **id,name,empcount write code to print id,name of departments whose empcount is greater than 50 using**  **for**  **foreach**  **lambda**  **linq query** |
| **CODE** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  // ============================================  // Author : Nanam Vaishnavi  // Purpose : Class Department using 4 loops.  // =============================================  namespace Day8Project4  {  class Department  {  public int id;  public string name;  public int empcount;  }  internal class Program  {  static void Main(string[] args)  {  List<Department> department = new List<Department>()  {  new Department(){id=520, name="SoftwareDeveloper", empcount=60 },  new Department() {id=522, name="Tester",empcount=40},  new Department() {id=523, name="Scrum Master",empcount=70},  new Department() {id=524, name="SQL Develloper",empcount=80 },  new Department() {id=525, name="C# Developer",empcount=20},  };  Console.WriteLine("==================================================================");  // forloop  for (int i=0;i<department.Count;i++)  {  if(department[i].empcount>50)  Console.WriteLine($"id={department[i].id},name={department[i].name}");  }  Console.WriteLine("==================================================================");  // foreach loop  foreach(var d in department)  {  if(d.empcount>50)  Console.WriteLine($"id={d.id}, name={d.name}");  }  Console.WriteLine("==================================================================");  // Lambda Expression  department.ToList().Where(d => d.empcount > 50).ToList().ForEach(d => Console.WriteLine($"id={d.id},name={d.name}"));  Console.WriteLine("==================================================================");  // LinQ  var res = from d in department  where d.empcount > 50  select d;  res.ToList().ForEach(d => Console.WriteLine($"id={d.id}, name={d.name}"));  Console.WriteLine("==================================================================");  Console.ReadLine();  }  }  } |
| **OUTPUT** |
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| **5. Create your own class and variables and**  **initialize with some values**  **for**  **foreach**  **lambda**  **linq query** |
| **CODE:** |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  //Author: Nanam Vaishnavi  //Purpose : Management class where salary>30000  //\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  namespace Day8Project5  {  class Management  {  public int id;  public string name;  public string designation;  public int salary;  }  internal class Program  {  static void Main(string[] args)  {  List<Management> management = new List<Management>()  {  new Management(){id=240, name="Vaishnavi", designation="HR Management", salary =50000 },  new Management(){id=241, name="Shiva", designation="Process Management", salary=60000},  new Management(){id=242, name="Abhiram", designation="Managing Management",salary=80000},  new Management(){id=243, name="JayaTeja", designation="Associates Management", salary=70000 },  new Management(){id=244, name="Aravind", designation="Operation Management",salary=20000 },  };  Console.WriteLine("=====================================================================================");  // forloop  for(int i=0;i<management.Count;i++)  {  if (management[i].salary > 30000)  Console.WriteLine($"id={management[i].id}, name={management[i].name}, designation={management[i].designation},salary={management[i].salary}");  }  Console.WriteLine("=====================================================================================");  // foreach  foreach (var m in management)  {  if (m.salary > 30000)  Console.WriteLine($"id ={ m.id}, name={m.name}, designation={m.designation}, salary={m.salary}");  }  Console.WriteLine("=====================================================================================");  // Lambda Expression  management.ToList().Where(m => m.salary > 30000).ToList().ForEach(m => Console.WriteLine($"id={m.id}, name={m.name}, designation={m.designation}, salary={m.salary}"));  Console.WriteLine("=====================================================================================");  // LinQ  var result = from m in management  where m.salary >30000  select m;  result.ToList().ForEach(m => Console.WriteLine($"id={m.id},name={m.name}, designation={m.designation}, salary={m.salary}"));  Console.WriteLine("=====================================================================================");  Console.ReadLine();  }  }  } |
| **OUTPUT:** |
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