|  |
| --- |
| Day8 Morning Assignment  By  Anusha Bellala |

|  |
| --- |
| 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 ConsoleApp1  {  internal class Program  {  static void Main(string[] args)  {  List<int> data = new List<int>() { 45, 56, 78, 89, 90, 24, 12, 18 };  //Even numbers using for loop  for(int i=0; i<data.Count; i++)  {  if(data[i]%2==0)  Console.WriteLine(data[i]);  }  //Even numbers using foreach loop  foreach (var d in data)  {  if (d % 2 == 0)  Console.WriteLine(d);  }  //Even numbers using lambda expression  data.Where(d=>d%2==0).ToList().ForEach(d => Console.WriteLine(d));  //Even numbers using Linq  var result=from d in data  where d%2==0  select d;  result.ToList().ForEach(d => Console.WriteLine(d));  Console.ReadLine();  }  }  } |
| Output: |

|  |
| --- |
| 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;  namespace ConsoleApp2  {  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=101,name="Anu",salary=5000},  new Employee(){id=102, name="Madhuri",salary=7000},  new Employee(){id =103,name="Nandu",salary =8000},  new Employee(){id =104,name="Sindhu",salary=4500},  new Employee(){id=105,name ="Prem",salary=4000}  };  //for loop  for(int i = 0; i < employees.Count; i++)  {  if(employees[i].salary>5000)  Console.WriteLine(employees[i].name);  }  //foreach loop  foreach(var e in employees)  {  Console.WriteLine(e.name);  }  //Lambda Expression  employees.Where(e => e.salary>5000).ToList().ForEach(e => Console.WriteLine(e.name));  //LINQ Query  var result=from e in employees  where e.salary>5000  select e.name;  result.ToList().ForEach(e => Console.WriteLine(e));  Console.ReadLine();  }  }  } |
| Output: |

|  |
| --- |
| 3. Create a class Product and add variables  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;  namespace ConsoleApp3  {  class Product  {  public int id;  public string name;  public int price;  public string brand;  }  internal class Program  {  static void Main(string[] args)  {  List<Product> products = new List<Product>()  {  new Product() { id = 1, name ="Laptop",price =50000, brand ="Dell"},  new Product() { id = 2, name ="Mobile",price=20000, brand ="Redmi"},  new Product(){ id = 3, name ="Tv",price=30000,brand ="Samsung"},  new Product{ id = 4, name ="Washing Machine",price=15000,brand ="LG"}  };  //for loop  for(int i=0;i<products.Count;i++)  {  if (products[i].price > 20000)  Console.WriteLine($"Name={products[i].name},Brand={products[i].brand}");  }  //foreach loop  foreach(var p in products)  {  if(p.price>20000)  Console.WriteLine($"Name={p.name},Brand={p.brand}");  }  //Lambda Expression  products.Where(p => p.price>20000).ToList().ForEach(p => Console.WriteLine($"Name={p.name},Brand={p.brand}"));  //LINQ Query  var result=from p in products  where p.price>20000  select p;  result.ToList().ForEach(p => Console.WriteLine($"Name={p.name},Brand={p.brand}"));  Console.ReadLine();  }  }  } |
| Output: |

|  |
| --- |
| 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 loop  foreach loop  lambda  linq query |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp4  {  class Department  {  public int id;  public string name;  public int empcount;  }  internal class Program  {  static void Main(string[] args)  {  List<Department> departments = new List<Department>()  {  new Department(){id = 101,name="Marketing",empcount=50},  new Department(){id = 102,name="Finance",empcount =30},  new Department(){id = 103,name="Operations Management",empcount=60},  new Department(){id = 104,name="Human Resource",empcount=40},  new Department(){id = 105,name="IT",empcount=20}  };  //for loop  for (int i = 0; i < departments.Count; i++)  {  if (departments[i].empcount > 50)  Console.WriteLine($"Id={departments[i].id},Name={departments[i].name}");  }  //foreach loop  foreach (var d in departments)  {  if (d.empcount > 50)  Console.WriteLine($"Id={d.id},Name={d.name}");  }  //Lambda Expression  departments.Where(d => d.empcount > 50).ToList().ForEach(d => Console.WriteLine($"Id={d.id},Name={d.name}"));    //LINQ Query  var result=from d in departments  where d.empcount > 50  select d;  result.ToList().ForEach(d=>Console.WriteLine($"Id={d.id}, Name={d.name}"));  Console.ReadLine();  }  }  } |
| Output: |

|  |
| --- |
| 5. Create your own class and variables and initialize with some values  For loop  Foreach loop  lambda  linq query |
| Code: |
| using System;  using System.Collections.Generic;  using System.Linq;  using System.Text;  using System.Threading.Tasks;  namespace ConsoleApp5  {  class Bank  {  public int accno;  public string accname;  public int accbalance;  }  internal class Program  {  static void Main(string[] args)  {  List<Bank> bank = new List<Bank>()  {  new Bank(){accno=1011,accname="Satish",accbalance=500},  new Bank(){accno=1022,accname="Pardhu",accbalance=900},  new Bank(){accno=1253,accname="Teju",accbalance=600},  new Bank(){accno=4563,accname="deepu",accbalance=550}  };  //for loop  for(int i=1;i< bank.Count;i++)  {  if (bank[i].accbalance > 500)  Console.WriteLine(bank[i].accname);  }  //foreach loop  foreach(var s in bank)  {  if(s.accbalance>500)  Console.WriteLine(s.accname);  }  //Lambda Expression  bank.Where(s=>s.accbalance>500).ToList().ForEach(s => Console.WriteLine(s.accname));  //LINQ Query  var result=from s in bank  where s.accbalance>500  select s;  result.ToList().ForEach(s => Console.WriteLine(s.accname));  Console.ReadLine();  }  }  } |
| Output: |