NB Healthcare Technologies Pvt Ltd

Day 8 Morning Assignment (2 – Feb- 2022)

By
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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 D8P1List
{
    internal class Program
    {
        static void Main(string[] args)
        {
            List<int> data = new List<int>() { 63, 22, 44, 56, 25, 46 };

            //for Loop Even Number
            for(int i = 0; i < data.Count; i++)
            {
                if(data[i] % 2 == 0)
                {
                    Console.WriteLine(data[i]);
                }
            }

            //foreach Loop for Even Number
            foreach(var d in data)
            {
                if(d % 2 == 0)
                {
                    Console.WriteLine(d);
                }
            }

            //lambda expression
            data.Where(d=>d%2==0).ToList().ForEach(d => Console.WriteLine(d));

            //Linq Query
            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 D8P2_EmployeeClass
{
   class Employee
   {
      public int id;
      public string name;
      public int salary;
   }


   internal class Program
   {
      static void Main(string[] args)
      {
         List<Employee> emp = new List<Employee>()
         {
            new Employee() {id = 01, name = "Vamsi", salary = 28000},
            new Employee() {id = 02, name = "Sai", salary = 9000},
            new Employee() {id = 03, name = "Krishna", salary = 5000},
            new Employee() {id = 04, name = "Pavan", salary = 25000},
            new Employee() {id = 05, name = "Manoj", salary = 35000}
         };
```

```
        //for loop
        for (int i = 0; i < emp.Count; i++)
        {
          Console.WriteLine($"id = {emp[i].id}, name = {emp[i].name}, salary = {emp[i].salary}");
        }

        //foreach
        foreach (var e in emp)
        {
          Console.WriteLine($"id = {e.id}, name = {e.name}, salary = { e.salary}");
        }

        //lamda
        emp.ToList().ForEach(e => Console.WriteLine($"id = {e.id}, name = { e.name}, salary = { e.salary}"));

        //Ling Query
        var result = from e in emp
                select e;
        result.ToList().ForEach(e => Console.WriteLine($"id = {e.id}, name = {e.name}, salary = {e.salary}"));


        Console.ReadLine();
      }
    }
}
```

Output:

D:\NB HealthCare Training\DotNet Projects\Day 8 Morning Assignment\D8P2-EmployeeClass\D8P2-EmployeeClass\bin\Debug\D8P...

```
id = 1, name = Vamsi, salary = 28000
id = 2, name = Sai, salary = 9000
id = 3, name = Krishna, salary = 5000
id = 4, name = Pavan, salary = 25000
id = 5, name = Manoj, salary = 35000
id = 1, name = Vamsi, salary = 28000
id = 2, name = Sai, salary = 9000
id = 3, name = Krishna, salary = 5000
id = 4, name = Pavan, salary = 25000
id = 5, name = Manoj, salary = 35000
id = 1, name = Vamsi, salary = 28000
id = 2, name = Sai, salary = 9000
id = 3, name = Krishna, salary = 5000
id = 4, name = Pavan, salary = 25000
id = 5, name = Manoj, salary = 35000
id = 1, name = Vamsi, salary = 28000
id = 2, name = Sai, salary = 9000
id = 3, name = Krishna, salary = 5000
id = 4, name = Pavan, salary = 25000
id = 5, name = Manoj, salary = 35000
```

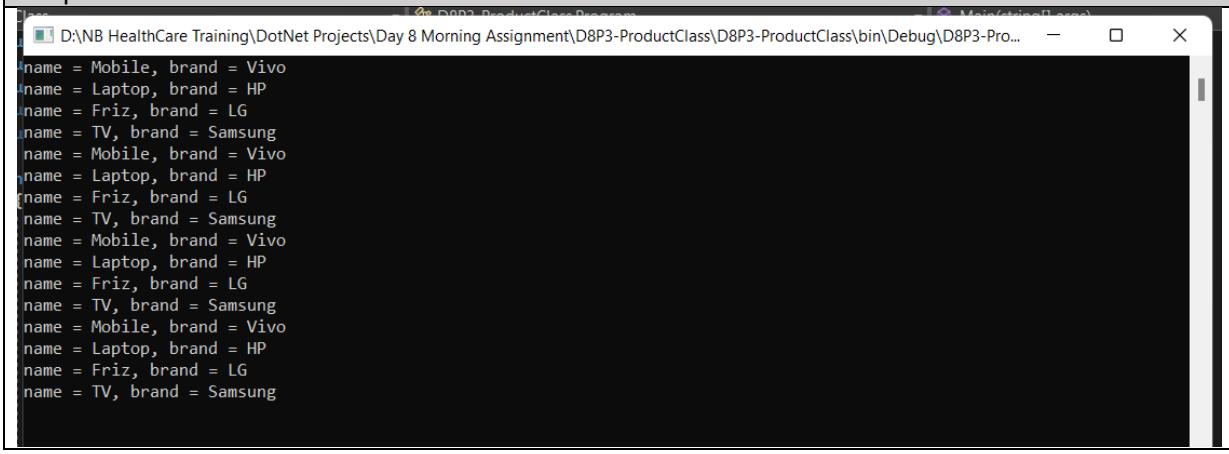
3. Create a class Product and add variables id, name, price, brand
print product (name and brand) whose price is more than 500 using
for
foreach loop
lambda
linq query

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace D8P3_ProductClass
{
    class Product
    {
        public int id;
        public string name;
        public string brand;
        public int price;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            List<Product> pro = new List<Product>()
            {
                new Product() {id = 01, name = "Mobile", brand = "Vivo", price = 30000},
                new Product() {id = 02, name = "Laptop", brand = "HP", price= 50000},
                new Product() {id = 03, name = "Mouse", brand = "HP", price = 200},
                new Product() {id = 04, name = "Friz", brand = "LG", price = 40000},
                new Product() {id = 05, name = "TV", brand = "Samsung", price = 20000}
            };

            //for loop
            for (int i = 0; i < pro.Count; i++)
            {
                if (pro[i].price > 500)
                {
                    Console.WriteLine($"name = {pro[i].name}, brand = {pro[i].brand}");
                }
            }

            //foreach loop
            foreach (var d in pro)
            {
                if (d.price > 500)
                {
                    Console.WriteLine($"name = {d.name}, brand = {d.brand}");
                }
            }

            //lambda expression
            pro.ToList().Where(d => d.price > 500).ToList().ForEach(d =>
Console.WriteLine($"name = {d.name}, brand = {d.brand}"));

            //Linq Query
            var result = from d in pro
```

```
                          where d.price > 500
                          select d;
            result.ToList().ForEach(d => Console.WriteLine($"name = {d.name}, brand =
{d.brand}"));



            Console.ReadLine();
        }
    }
}
```

Output:



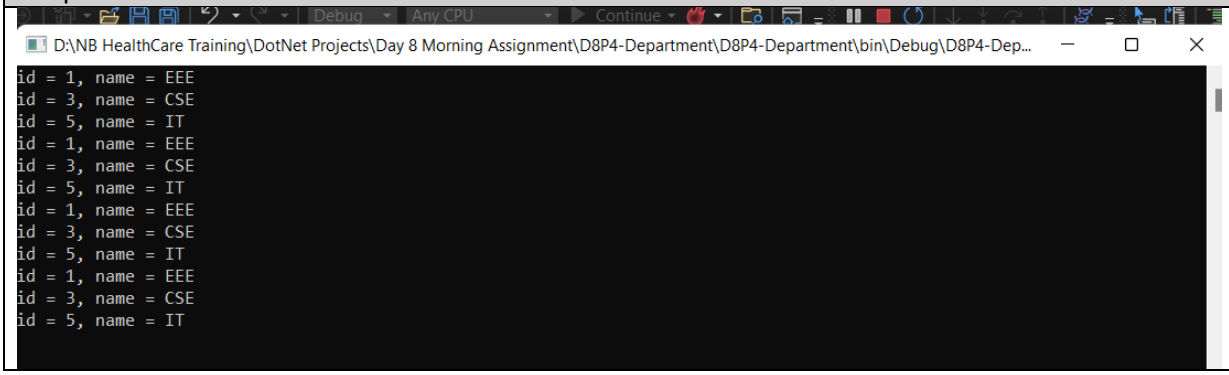
4. Create a Department class and add variables id,name,empcount write code to print id,name of departments whose empcount is greater than 50 using for
foreach
lambda
linq query

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace D8P4_Department
{
    class Department
    {
        public int id;
        public string name;
        public int empcount;

    }
    internal class Program
    {
        static void Main(string[] args)
        {
```

```
            List<Department> dpt = new List<Department>()
            {
                new Department() {id = 01, name = "EEE", empcount = 60},
                new Department() {id = 02, name = "ECE", empcount = 40},
                new Department() {id = 03, name = "CSE", empcount = 70},
                new Department() {id = 04, name = "MECH", empcount = 30},
                new Department() {id = 05, name = "IT", empcount = 900},
            };

            //for loop
            for(int i = 0; i < dpt.Count; i++)
            {
                if(dpt[i].empcount > 50)
                {
                    Console.WriteLine($"id = {dpt[i].id}, name = {dpt[i].name}");
                }
            }

            //foreach loop
            foreach(var d in dpt)
            {
                if(d.empcount > 50)
                {
                    Console.WriteLine($"id = {d.id}, name = {d.name}");
                }
            }

            //lambda expression
            dpt.ToList().Where(d=>d.empcount > 50).ToList().ForEach(d =>
Console.WriteLine($"id = {d.id}, name = {d.name}"));

            //Linq Query
            var result = from d in dpt
                         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
foreach
lambda
linq query

Code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace D8P5_DoctorClass
{
    class Doctor
    {
        public string name;
        public string specialization;
        public int salary;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            List<Doctor> doc = new List<Doctor>()
            {
                new Doctor() {name = "Dr.Harsha", specialization = "Gynecology", salary =
90000},
                new Doctor() {name = "Dr.Aravind", specialization = "Orthopedics", salary =
97000},
                new Doctor() {name = "Dr.Krishna", specialization = "Dermotology", salary =
55000},
                new Doctor() {name = "Dr.Pavan", specialization = "General Surgery", salary
= 85000},
                new Doctor() {name = "Dr.Manoj", specialization = "Ophthamology",salary =
95000}
            };

            //for loop
            for (int i = 0; i < doc.Count; i++)
            {
                Console.WriteLine($"name = {doc[i].name}, specialization =
{doc[i].specialization}, salary = {doc[i].salary}");
            }

            //foreach
            foreach (var d in doc)
            {
                Console.WriteLine($"name = {d.name}, specialization = {d.specialization},
salary = { d.salary}");
            }

            //lamda
            doc.ToList().ForEach(d => Console.WriteLine($"name = {d.name}, specialization =
{ d.specialization}, salary = { d.salary}"));

            //Ling Query
            var result = from d in doc
                         select d;
```

```
            result.ToList().ForEach(d => Console.WriteLine($"name = {d.name}, specialization = {d.specialization}, salary = {d.salary}"));


            Console.ReadLine();
        }
    }
}
```

Output: