Day8 Morning Assignment

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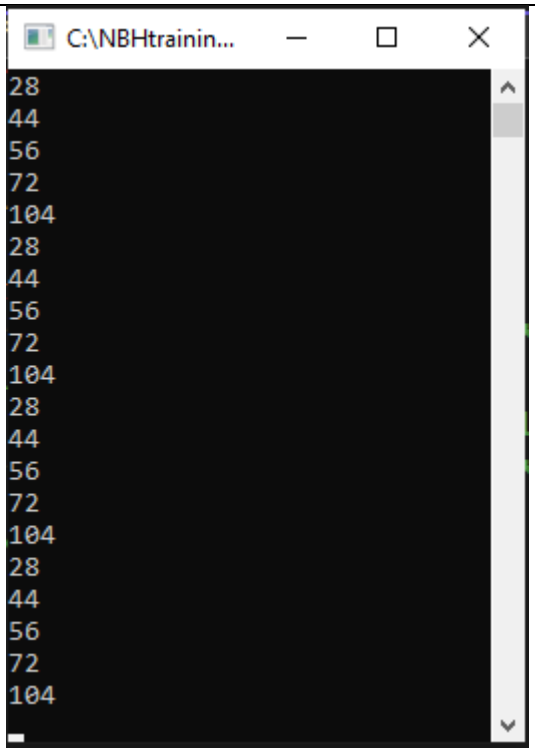
Question 1:
Declare and initialize a list with 8 values:
a)For loop
b)For each
c)Lambda
d)LINQ query

Code:

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

namespace Day8Project1_Evennos_
{
//*************************************************************************\\
       //Author:Narala Praveen
       //Purpose:To Declare and initialize a list with 8 values and print even
numbers

//*************************************************************************\\
    internal class Program
    {
        static void Main(string[] args)
        {
            List<int> data = new List<int> { 28, 44, 85, 56, 65, 72, 55, 95, 104
};

            //For loop
            for(int i = 0; i < data.Count; i++)
            {
                if(data[i]%2==0)

                    Console.WriteLine(data[i]);
            }
            //For each loop
            foreach(var d in data)
            {
                if(d%2==0)
                    Console.WriteLine(d);
            }
            //Lambda Expression
            data.ToList().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: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Question2:

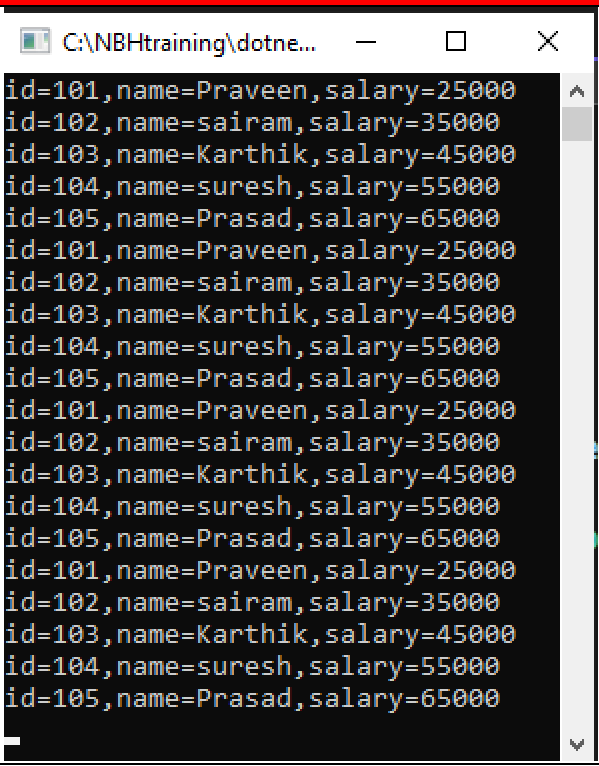
Create a class employee with three variables as discussed in and create list of Employees
Public Int id;
Public string name;
Public int salary;
Using
For loop:
For each loop:
Lambda expression:
LINQ query:

Code:

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

namespace Day8project2employees
{          //*****************************************************************\\
            //Author:Narala Praveen
            //Purpose:To create a class with Employee with 3 Variables and Print
using
            //for loop
            //for each
            //Lambda Expression
            //LINQ query

//*****************************************************************\\

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="Praveen",salary=25000},
                new Employee() { id =102, name="sairam", salary=35000},
                new Employee() { id = 103, name="Karthik",salary=45000},
                new Employee() { id = 104, name = "suresh",salary =55000},
                new Employee() { id =105, name= "Prasad", salary =65000},
            };
            //For loop
            for (int i = 0; i < employees.Count; i++)
            {

Console.WriteLine($"id={employees[i].id},name={employees[i].name},salary={employe
es[i].salary}");
            }

            //For each
```

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


            //Lambda Expression
            employees.ForEach(e =>
Console.WriteLine($"id={e.id},name={e.name},salary={e.salary}"));

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

            Console.ReadLine();

        }
    }
}
```

Output:



Question3:

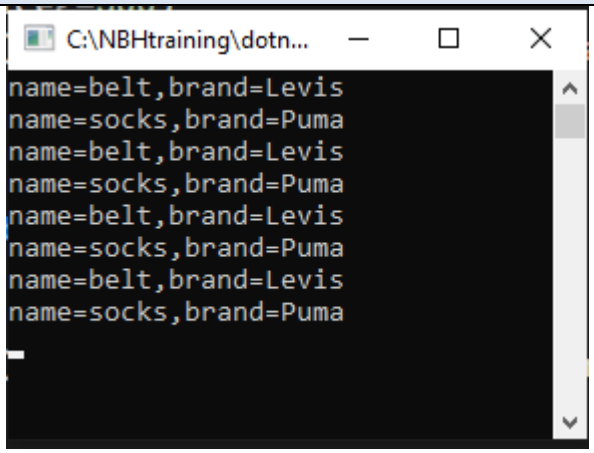
Create a class Product and add Variables id, name, price, Brand
Print Product (name and brand) whose price is more than 500
Using;
For loop
For each loop
Lambda expression
LINQ query

Code:

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

namespace Day8Project3products
{          //*********************************************************************\\
           //Author:Narala Praveen
           //Purpose:To create a Product class and print products whose price>500

//*********************************************************************\\

    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 = 101, name="watch",price=250,
brand="Fossil"},
                new Product() { id =102, name="cap", price=350, brand="CAP"},
                new Product() { id = 103, name="shoes",price=450, brand="Nike"},
                new Product() { id = 104, name = "belt",price =550,
brand="Levis"},
                new Product() { id =105, name= "socks", price =650,
brand="Puma"},
            };
            //For loop
            for (int i = 0; i < products.Count; i++)
            {
                if(products[i].price>=500)

Console.WriteLine($"name={products[i].name},brand={products[i].brand}");
            }

            //For each
            foreach (var p in products)
```

```
            {
                if(p.price>=500)
                Console.WriteLine($"name={p.name},brand={p.brand}");
            }


            //Lambda Expression
            products.ToList().Where(p=>p.price>=500).ToList().ForEach(p =>
Console.WriteLine($"name={p.name},brand={p.brand}"));

            //LINQ query
            var result = from p in products
                         where p.price >500
                         select p;
            result.ToList().ForEach(p =>
Console.WriteLine($"name={p.name},brand={p.brand}"));

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

Output:



Questions 4:

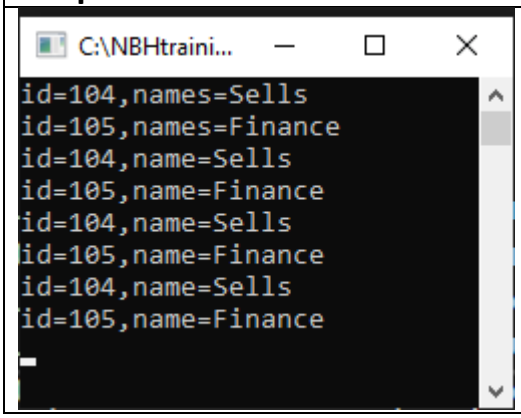
Create a Department class and variables id, name, empcount
Write code to print id, name of department whose empcount>=50
Using
For loop;
For each;
Lambda expression;
LINQ query;

Code:

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

namespace Day8Project4department
{       //*********************************************************************\\
        //Author:Narala Praveen
        //Purpose:To create a Department class and print id and name of department
using
        //For loop
        //For each
        //Lambda Expression
        //LINQ query

    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="Police",empcount=25},
                new Department() { id =102, name="Excise", empcount=35},
                new Department() { id = 103, name="Incometax",empcount=45},
                new Department() { id = 104, name = "Sells",empcount =55},
                new Department() { id =105, name= "Finance", empcount =65},
            };
            //For loop
            for (int i = 0; i < departments.Count; i++)
            {
                if (departments[i].empcount >= 50)

Console.WriteLine($"id={departments[i].id},names={departments[i].name}");
            }

            //For each
            foreach (var d in departments)
```

```
            {
                if (d.empcount >= 50)
                    Console.WriteLine($"id={d.id},name={d.name}");
            }


            //Lambda Expression
            departments.ToList().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(p =>
Console.WriteLine($"id={p.id},name={p.name}"));

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

Output:



Question 5:

Create your own class and variables and initialize with some values
Using
For loop
For each
Lambda Expression
LINQ query

Code:

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

namespace Day8project5
{          //*************************************************************\\
           //Author:Narala Praveen
           //Purpose:To create own class and variables and print using
           //For loop
           //For each loop
           //Lambda Expression
           //LINQ query
           //*************************************************************\\

    class Bike
    {
        public string name;
        public int price;
        public string model;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            List<Bike> bike = new List<Bike>
            {
                new Bike() {name= "Royal Enfield",price=200000,model="classic
350"},
                new Bike() {name = "Yamaha",price =170000, model = "R15"},
                new Bike() {name = "Suziki", price =150000, model = "Gixer"},
                new Bike() {name = "Kawasaki", price=400000, model = "Ninja"},
                new Bike() {name = "Hansverna" ,price=210000, model="Vtplaner"}
            };
            //For loop
            for(int i = 0;i<bike.Count;i++)
            {
                if (bike[i].price>=180000)
                    Console.WriteLine(bike[i].name+"-"+bike[i].model);

            }//For each loop
            foreach(var b in bike)
            {
                if(b.price>=180000)
                    Console.WriteLine(b.name+"-"+b.model);
            }
            //Lambda Expression
            bike.ToList().Where(b => b.price >= 180000).ToList().ForEach(b =>
Console.WriteLine(b.name+"-"+b.model));
```

```
            //Linq Query
            var result = from b in bike
                         where b.price>=180000
                         select b;
            result.ToList().ForEach(b => Console.WriteLine(b.name + "" +
b.model));

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

Output: