DAY 8 ASSIGNMENT
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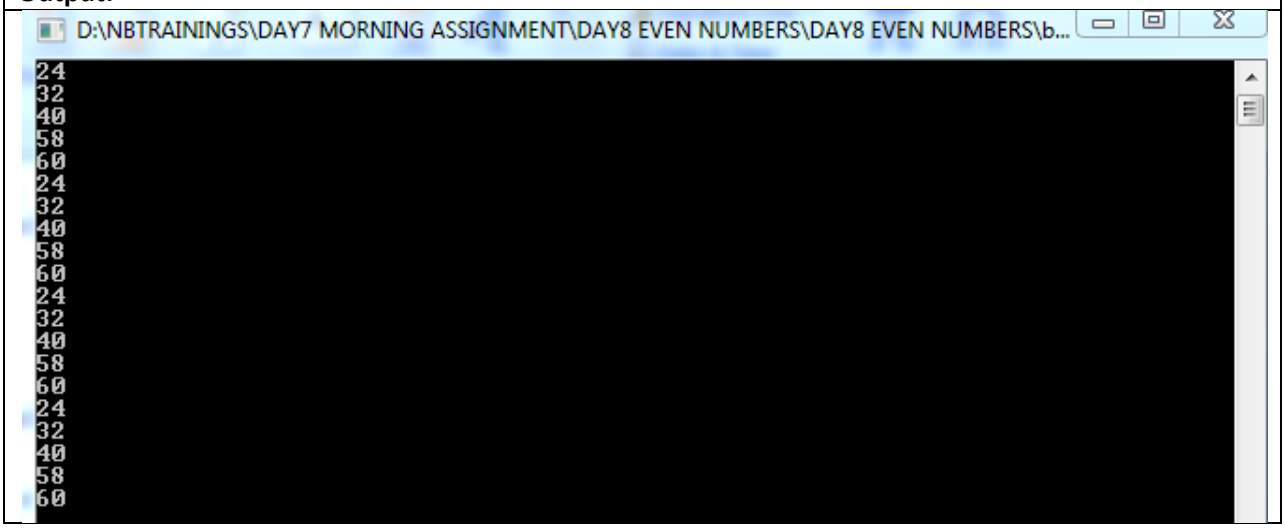
Q1. Declare and initialize list of 8 values. Write for loop, for each loop, lambda expression and LINQ query to print the even numbers.

CODE:

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

namespace DAY8_EVEN_NUMBERS
{
    internal class Program
    {
        static void Main(string[] args)
        {
            List<int> data = new List<int> { 24, 29, 32, 40, 55, 58, 60, 65 };


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

            //foreach loop
            foreach(var d in data)
                if(d%2 ==0)
                {
                    Console.WriteLine(d);
                }
            // lamda expression
            data.ToList().Where(d => d % 2 == 0).ToList().ForEach(d => Console.WriteLine(d));

            // LING query
            var result = from d in data
                         where d % 2 == 0
                         select d;
            result.ToList().ForEach(d => Console.WriteLine(d));
            Console.ReadLine();

        }
    }
}
```

Output:



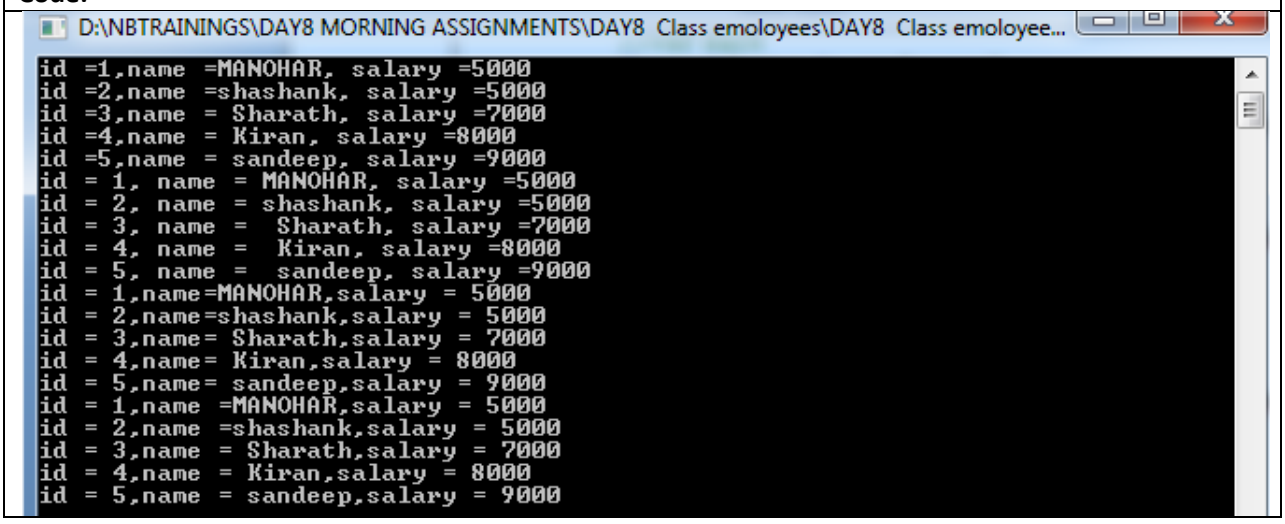
Q2. Create a class Employees with three variable as discussed in the class and create a list of employees write for loop, foreach, lambda expression, LINQ query

Code:

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

namespace DAY8__Class_emoloyees
{
   class Employees
   {
      public int id;
      public string name;
      public int salary;
   }
   internal class Program
   {
      static void Main(string[] args)
      {
         List<Employees> employees = new List<Employees>
        {
            new Employees() {id = 1, name = "MANOHAR" ,salary = 5000},
            new Employees() {id = 2, name = "shashank" ,salary = 5000},
            new Employees () {id = 3, name = " Sharath", salary = 7000},
            new Employees () {id = 4, name = " Kiran", salary = 8000},
            new Employees () {id = 5,name = " sandeep", salary = 9000},
```

```
        };
        // for loop;
        for (int i = 0; i< employees.Count; i++)
        {
            Console.WriteLine($"id ={employees[i].id},name ={employees[i].name}, salary ={employees[i].salary}");
        }
        //for each
        foreach(var e in employees)
        {
            Console.WriteLine($"id = {e.id}, name = {e.name}, salary ={e.salary}");
        }
        //for Lambda expression
        employees.ToList().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();




    }
  }
}
```

Code:



Q3. Create a class Product with three variable as discussed in the class and create a list of employees write for loop, foreach, lambda expression, LINQ query whose price is >=500

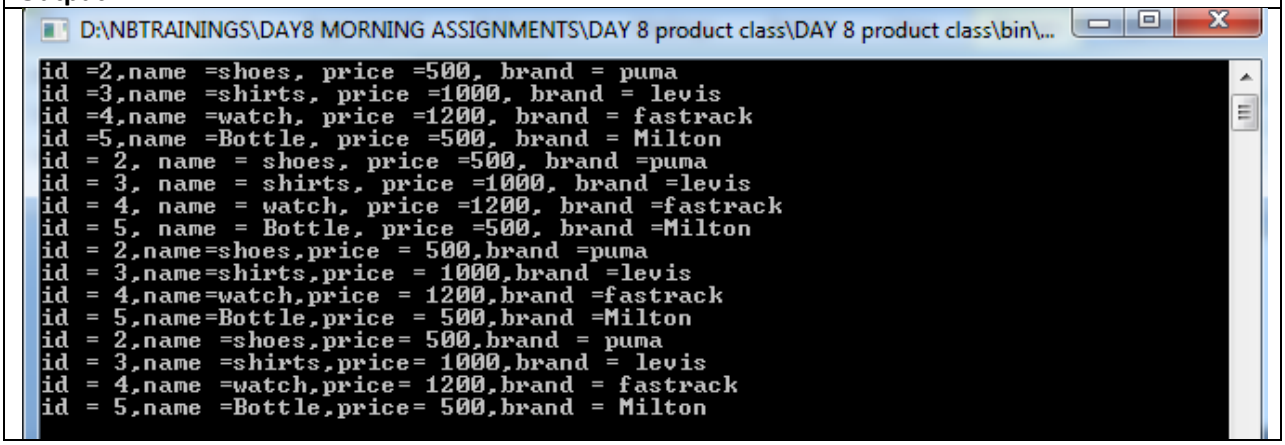
Code:

```
using System;
```

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

namespace DAY_8_product_class
{
    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 = "Sanitizer" ,price = 100, brand = "hygenix" },
                new Product() {id = 2, name = "shoes" ,price = 500, brand = "puma" },
                new Product() {id = 3, name = "shirts" ,price = 1000, brand = "levis" },
                new Product() {id = 4, name = "watch" ,price = 1200, brand = "fastrack" },
                new Product() {id = 5, name = "Bottle" ,price = 500,brand = "Milton" },
            };
            // for loop;
            for (int i = 0; i < product.Count; i++)
            {
                if (product[i].price >= 500)
                    Console.WriteLine($"id ={product[i].id},name ={product[i].name}, price ={product[i].price}, brand =
{product[i].brand}");
            }
            //for each
            foreach (var p in product)
            {
                if (p.price >= 500)
                    Console.WriteLine($"id = {p.id}, name = {p.name}, price ={p.price}, brand ={p.brand}");
            }
            //for 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}"));

            //LINQ queryp
            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.ReadLine();




        }
    }

}
```

Output:



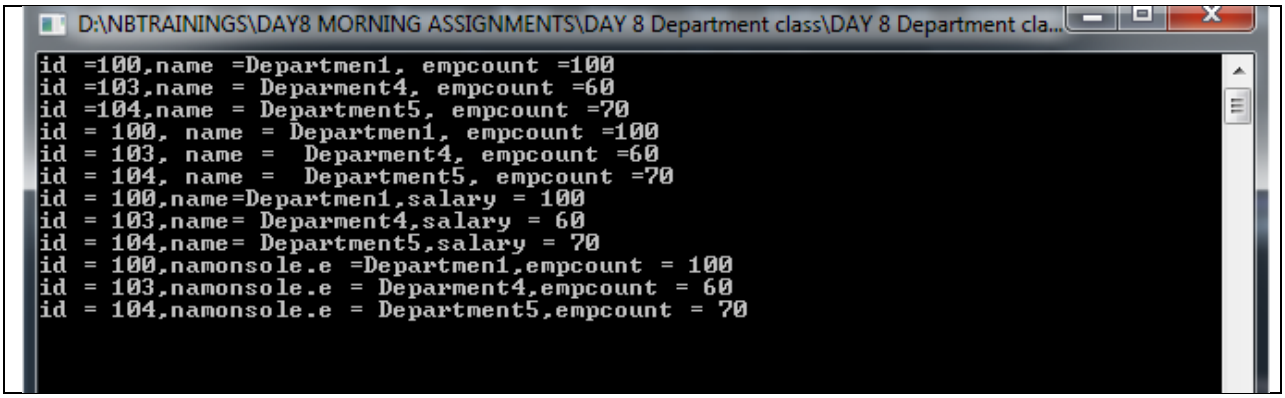
Q4 . Create a class department with three variable as discussed in the class and create a list of employees write for loop, foreach, lambda expression, LINQ query whose emp count is >=50

Code:

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

namespace DAY_8_Department_class
{
    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 = 100, name = "Department1" ,empcount = 100},
            new Department() {id = 101, name = "Deparment2" ,empcount = 40},
            new Department () {id = 102, name = "Deparment3", empcount = 30},
            new Department () {id = 103, name = " Deparment4",empcount =60},
            new Department () {id = 104,name = " Department5", empcount = 70},
        };

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

            if (d.empcount >= 50)
                Console.WriteLine($"id = {d.id}, name = {d.name}, empcount ={d.empcount}");
        }
        //for Lambda expression
        department.ToList().Where(d => d.empcount >= 50).ToList().ForEach(d => Console.WriteLine($"id =
{d.id},name={d.name},salary = {d.empcount}"));

        //LINQ query
        var result = from d in department
                     where d.empcount >= 50
                     select d;
        result.ToList().ForEach(d => Console.WriteLine($"id = { d.id},namonsole.e ={ d.name},empcount = {
d.empcount}"));
        Console.ReadLine();


    }


    }
  }
```

Output:



Q.5 Create a class customer with three variable as discussed in the class and create a list of employees write for loop, foreach, lambda expression, LINQ query whose age is >=30

Code:

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

namespace DAY8_customer_class
 {

   class Customer
   {

      public int id;
      public string name;
      public int age;
   }

   internal class Program
   {
      static void Main(string[] args)
      {
      List<Customer> customer = new List<Customer>

      {
            new Customer() {id = 111, name = "Manohar" ,age = 50},
            new  Customer() {id = 222, name = "Rajesh" ,age = 30},
            new  Customer() {id = 333, name = "Madhav" ,age = 25},
            new  Customer() {id = 444, name = "Kalyan" ,age = 20},
            new  Customer() {id = 555, name = "Ramu" ,age = 60},
      };
         // for loop;
         for (int i = 0; i < customer.Count; i++)
           {
```

```
            if (customer[i].age >= 30)
                Console.WriteLine($"id ={customer[i].id},name ={customer[i].name}, age ={customer[i].age}");
        }


        //for each
        foreach (var c in customer)
        {

            if (c.age >= 30)
                Console.WriteLine($"id = {c.id}, name = {c.name}, age ={c.age}");
        }
        //for Lambda expression
        customer.ToList().Where(c => c.age >= 50).ToList().ForEach(c => Console.WriteLine($"id =
{c.id},name={c.name},age = {c.age}"));



        //LINQ query
        var result = from c in customer
                     where c.age >= 30
                     select c;
        result.ToList().ForEach(c => Console.WriteLine($"id = { c.id},namonsole.e ={ c.name},age = { c.age}"));
        Console.ReadLine();



    }
  }
}
```

Output: