NB Healthcare Technologies Pvt Ltd

Day – 7 Morning Assignment (01-02-2022)
By
Vamsi Krishna Mandapati

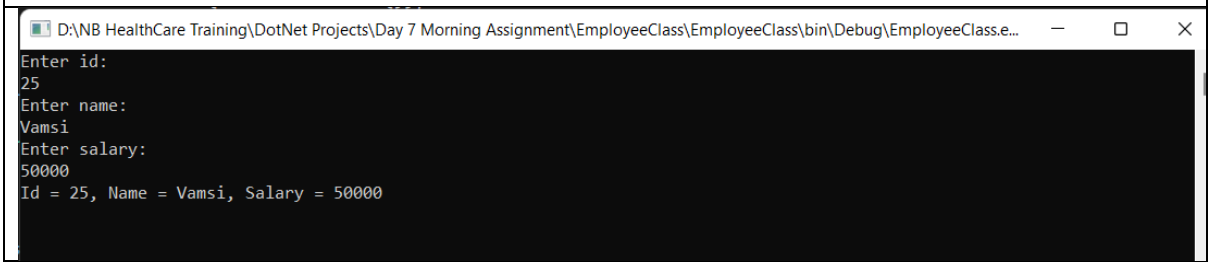
1. Create Employee class with three variables and two methods ReadEmployee and PrintEmployee and create an object and call methods.

Code:

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

namespace EmployeeClass
{
    class Employee
    {
        private int id;
        private string name;
        private int salary;

        public void ReadEmployee()
        {
            Console.WriteLine("Enter id:");
            id = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter name:");
            name = Console.ReadLine();

            Console.WriteLine("Enter salary:");
            salary = Convert.ToInt32(Console.ReadLine());
        }

        public void WriteEmployee()
        {
            Console.WriteLine($"Id = {id}, Name = {name}, Salary = {salary}");
        }
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Employee emp = new Employee();
            emp.ReadEmployee();
            emp.WriteEmployee();
```

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

OutPut:



2. Write the 3 def of class and 4 points about object discussed in the class.

Class:

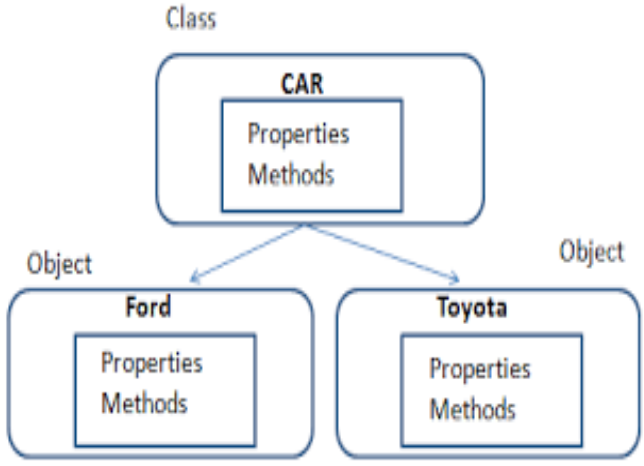
1.A class is a group of variables and methods.
2.A class is like a design/blueprint to create objects.
3. A class consists of state and behavior.

Object:

1.An object is an instance of a class.
2. we can create any number of objects.
3.objects occupy memory.
4. objects are reference.

3.Pictorially represent class and multiple objects

Diagram:



NB Healthcare Technologies Pvt Ltd

4. Create below classes:
    1. Customer
    2. Product
    3. Seller
    4. Department

1.Customer Class

Code:

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

namespace Four_Classes
{
    class Customer
    {
        private int customerId;
        private string customerName;
        private string customerMobile;

        public void ReadCustomer()
        {
            Console.WriteLine("Enter CustomerId:");
            customerId = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter customername:");
            customerName = Console.ReadLine();

            Console.WriteLine("Enter customerMobile:");
            customerMobile = Console.ReadLine();

        }

        public void WriteCustomer()
        {
            Console.WriteLine($"Id = {customerId}, Name = {customerName},
customerMobile = {customerMobile}");
        }
    }



    internal class Program
    {
        static void Main(string[] args)
        {
            Customer cum = new Customer();
            cum.ReadCustomer();
            cum.WriteCustomer();

            Product pro = new Product();
            pro.ReadProduct();
            pro.WriteProduct();

            Seller sel = new Seller();
            sel.ReadSeller();
            sel.WriteSeller();
```

```
            Department depart = new Department();
            depart.ReadDepartment();
            depart.WriteDepartment();

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

2.Product class

Code:

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

namespace Four_Classes
{
    internal class Product
    {
        private int productId;
        private string productName;
        private string productDescription;


        public void ReadProduct()
        {
            Console.WriteLine("Enter Product id:");
            productId = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter product name:");
            productName = Console.ReadLine();

            Console.WriteLine("enter product description");
            productDescription = Console.ReadLine();
        }

        public void WriteProduct()
        {
            Console.WriteLine($"procuct id = {productId}, product name =
{productName}, product description = {productDescription}");
        }


    }
}
```

3.Seller Class

Code:

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

namespace Four_Classes
{
    internal class Seller
    {
        private int sellerId;
```

```
        private string sellerName;
        private string sellerProduct;


        public void ReadSeller()
        {
            Console.WriteLine("Enter Seller id:");
            sellerId = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter Seller name:");
            sellerName = Console.ReadLine();

            Console.WriteLine("enter seller product");
            sellerProduct = Console.ReadLine();
        }

        public void WriteSeller()
        {
            Console.WriteLine($"seller id = {sellerId}, seller name =
{sellerName}, sellerProduct = {sellerProduct}");
        }

    }
}
```

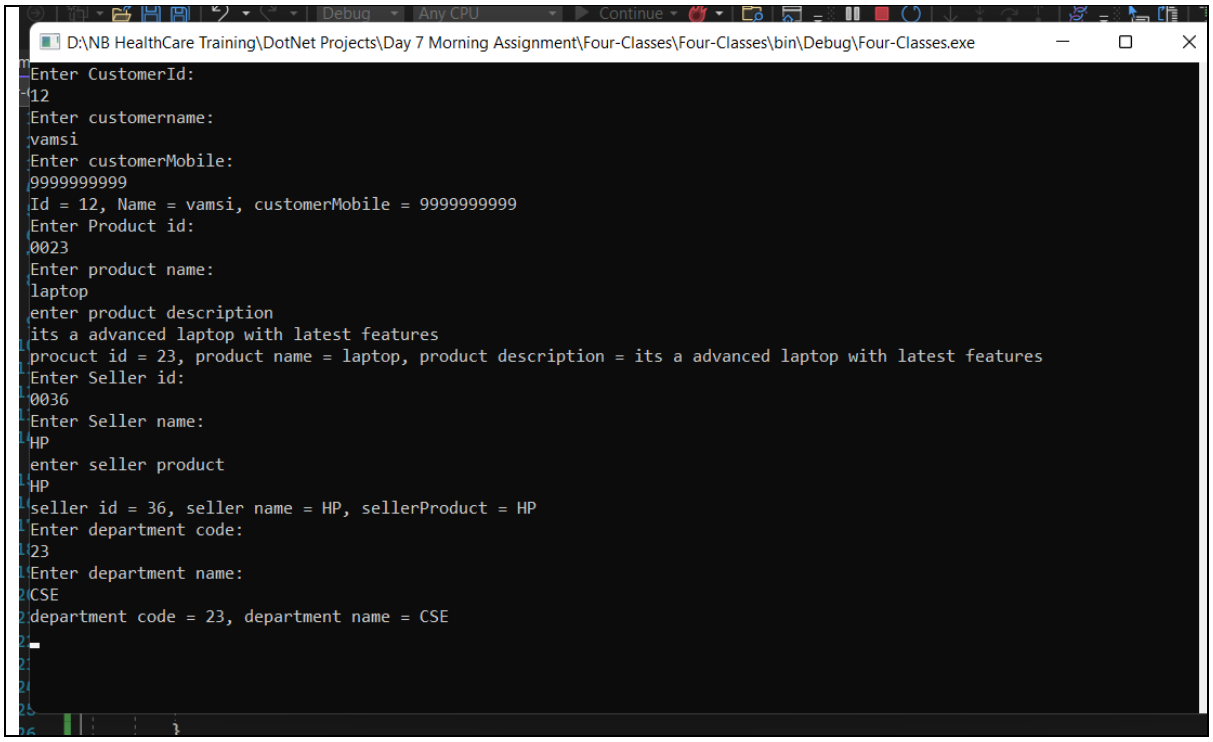
4.Department Class

Code:

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

namespace Four_Classes
{
    internal class Department
    {
        private int departmentCode;
        private string departmentName;



        public void ReadDepartment()
        {
            Console.WriteLine("Enter department code:");
            departmentCode = Convert.ToInt32(Console.ReadLine());

            Console.WriteLine("Enter department name:");
            departmentName = Console.ReadLine();


        }

        public void WriteDepartment()
        {
            Console.WriteLine($"department code = {departmentCode}, department
name = {departmentName}");
        }
    }
}
```

Final Output:

NB Healthcare Technologies Pvt Ltd



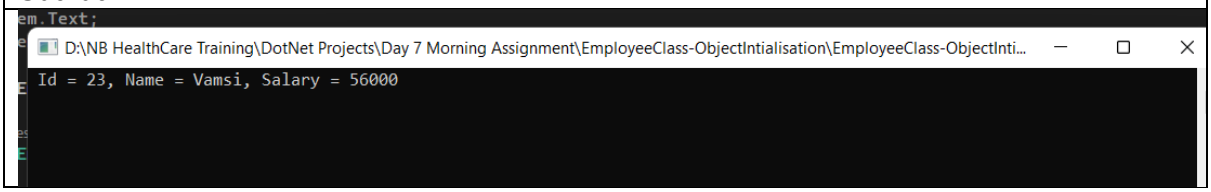
5. Create Employee class with 3 public variables.
Create Employee object and initialize with values while creating object and print the values.

Code :

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

namespace EmployeeClass_ObjectIntialisation
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }


    internal class Program
    {
        static void Main(string[] args)
        {
            Employee emp = new Employee() { id = 23, name = "Vamsi", salary =
56000 };

            Console.WriteLine($" Id = {emp.id}, Name = {emp.name}, Salary =
{emp.salary}");

            Console.ReadLine();
```

```
        }
    }
}
```

OutPut:



6. Create Employee class as shown below:

```
class Employee
{
    public int id;
    public string name;
    public int salary;
}
```

now create employees array object and initialize with 5 employees

write code using

a. for loop

b. foreach loop

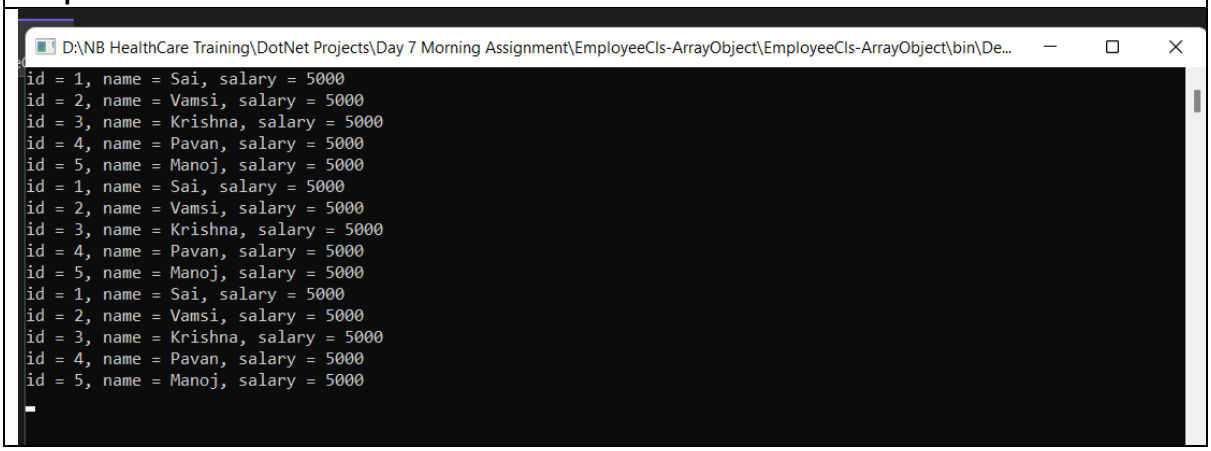
c. lambda expression.

Code:

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

namespace EmployeeCls_ArrayObject
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }


    internal class Program
    {
        static void Main(string[] args)
        {
            Employee[] emp = new Employee[]
            {
                new Employee() {id = 1, name = "Sai", salary = 5000},
                new Employee() {id = 2, name = "Vamsi", salary = 5000},
```

```
                new Employee() {id = 3, name = "Krishna", salary = 5000},
                new Employee() {id = 4, name = "Pavan", salary = 5000},
                new Employee() {id = 5, name = "Manoj", salary = 5000}
            };

            //for loop
            for(int i = 0; i < emp.Length; 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}"));

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

Output:



7. For the above project,
   write code to print employees who is getting salary >=5000 using
   for loop
   foreach loop
   lambda expression

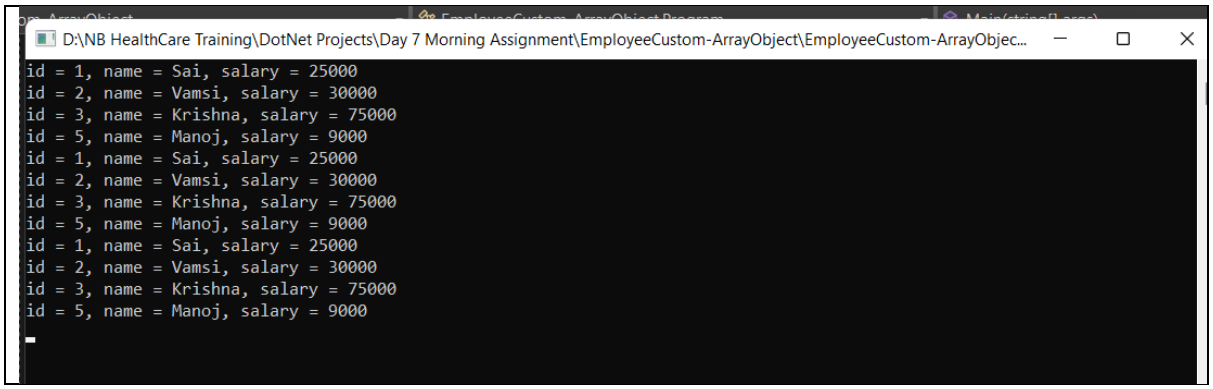
Code:

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

```
namespace EmployeeCustom_ArrayObject
{
    class Employee
    {
        public int id;
        public string name;
        public int salary;
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Employee[] emp = new Employee[]
            {
                new Employee() {id = 1, name = "Sai", salary = 25000},
                new Employee() {id = 2, name = "Vamsi", salary = 30000},
                new Employee() {id = 3, name = "Krishna", salary = 75000},
                new Employee() {id = 4, name = "Pavan", salary = 5000},
                new Employee() {id = 5, name = "Manoj", salary = 9000}
            };

            //for loop
            for (int i = 0; i < emp.Length; i++)
            {
                if (emp[i].salary >= 7000)
                {
                    Console.WriteLine($"id = {emp[i].id}, name = {emp[i].name},
salary = {emp[i].salary}");

                }

            }

            //foreach
            foreach (var e in emp)
            {
                if(e.salary >= 7000)
                {
                    Console.WriteLine($"id = {e.id}, name = {e.name}, salary =
{e.salary}");

                }

            }

            //lamda

            emp.ToList().Where(e => e.salary >= 7000).ToList().ForEach(e =>
Console.WriteLine($"id = {e.id}, name = {e.name}, salary = {e.salary}"));

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

OutPut:

NB Healthcare Technologies Pvt Ltd



8. Similar to 6 and 7 projects create list of Customer an Product Arrays and practice for, foreach and lambda expression

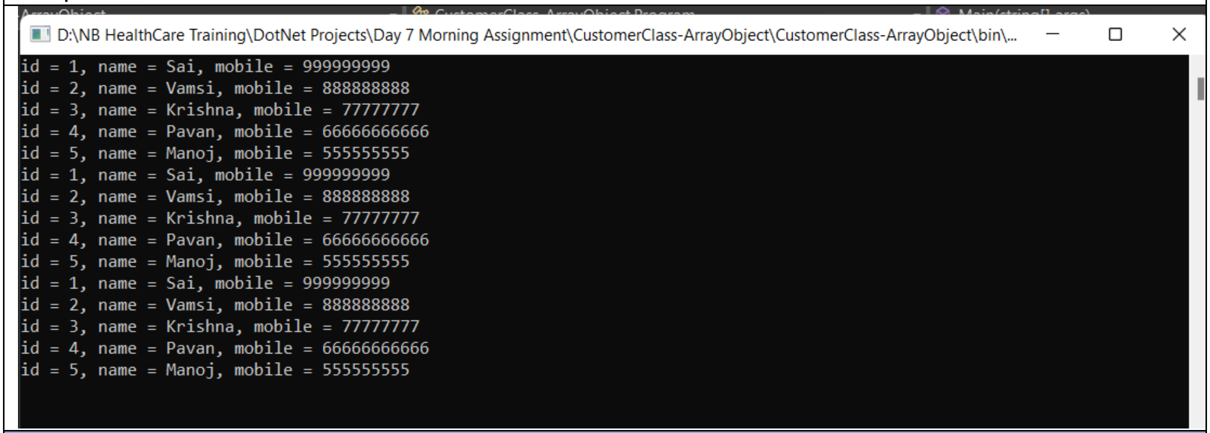
Customer Class 1

Code:

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

namespace CustomerClass_ArrayObject
{
    class Customer
    {
        public int id;
        public string name;
        public string mobile;
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Customer[] cust = new Customer[]
            {
                new Customer() {id = 1, name = "Sai", mobile = "999999999"},
                new Customer() {id = 2, name = "Vamsi", mobile = "888888888"},
                new Customer() {id = 3, name = "Krishna", mobile = "77777777"},
                new Customer() {id = 4, name = "Pavan", mobile =
"66666666666"},
                new Customer() {id = 5, name = "Manoj", mobile = "555555555"}
            };

            //for loop
            for (int i = 0; i < cust.Length; i++)
            {
                Console.WriteLine($"id = {cust[i].id}, name = {cust[i].name},
mobile = {cust[i].mobile}");
            }

            //foreach
            foreach (var c in cust)
```

```
            {
                Console.WriteLine($"id = {c.id}, name = {c.name}, salary = 
{c.mobile}");
            }

            //lamda
            cust.ToList().ForEach(c => Console.WriteLine($"id = {c.id}, name = 
{c.name}, mobile = {c.mobile}"));

            Console.ReadLine();

        }

    }
}
```

Output:



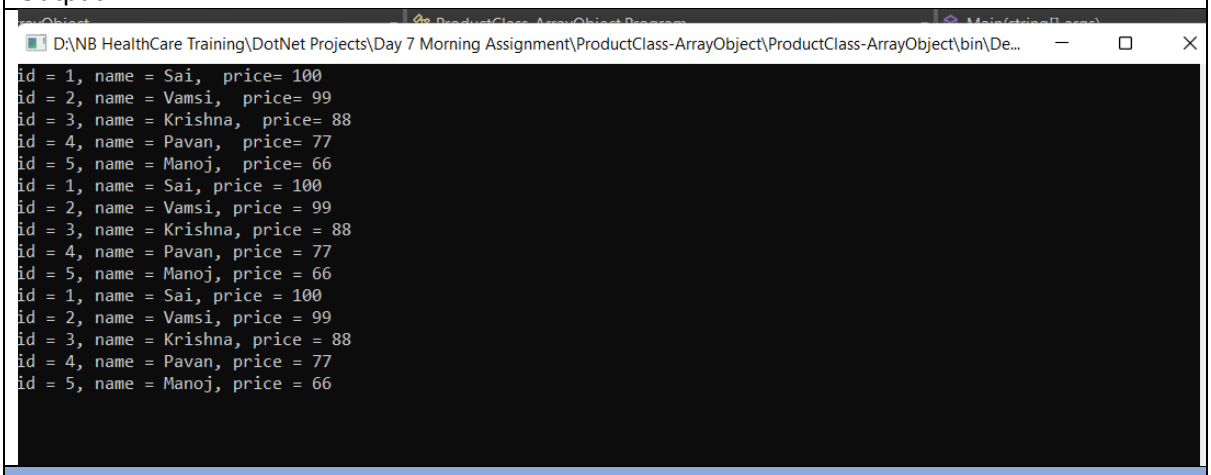
Product Class 1

Code:

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

namespace ProductClass_ArrayObject
{
    class Product
    {
        public int id;
        public string name;
        public int price;
    }


    internal class Program
    {
        static void Main(string[] args)
        {
            Product[] pro = new Product[]
            {
                new Product() {id = 1, name = "Sai", price = 100},
                new Product() {id = 2, name = "Vamsi", price = 99},
                new Product() {id = 3, name = "Krishna", price = 88},
                new Product() {id = 4, name = "Pavan", price = 77},
                new Product() {id = 5, name = "Manoj", price = 66}
            };
```

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

            //foreach
            foreach (var p in pro)
            {
                Console.WriteLine($"id = {p.id}, name = {p.name}, price =
{p.price}");
            }

            //lamda
            pro.ToList().ForEach(p => Console.WriteLine($"id = {p.id}, name =
{p.name}, price = {p.price}"));

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

Output:



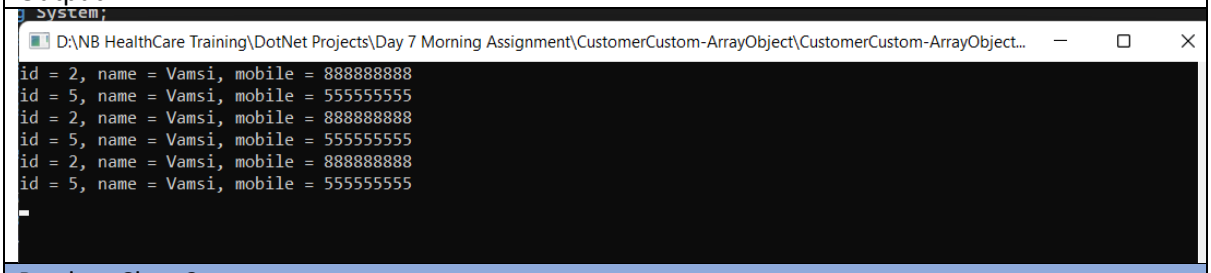
Customer Class 2

Code:

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

namespace CustomerCustom_ArrayObject
{
    class Customer
    {
        public int id;
        public string name;
        public string mobile;
    }
    internal class Program
    {
        static void Main(string[] args)
        {
            Customer[] cust = new Customer[]
            {
                new Customer() {id = 1, name = "Sai", mobile = "999999999"},
```

```
                new Customer() {id = 2, name = "Vamsi", mobile = "888888888"},
                new Customer() {id = 3, name = "Krishna", mobile = "77777777"},
                new Customer() {id = 4, name = "Pavan", mobile =
"66666666666"},
                new Customer() {id = 5, name = "Vamsi", mobile = "555555555"}
            };

            //for loop
            for (int i = 0; i < cust.Length; i++)
            {
                if(cust[i].name == "Vamsi")
                {
                    Console.WriteLine($"id = {cust[i].id}, name =
{cust[i].name}, mobile = {cust[i].mobile}");

                }

            }

            //foreach
            foreach (var c in cust)
            {
                if(c.name == "Vamsi")
                {
                    Console.WriteLine($"id = {c.id}, name = {c.name}, mobile =
{c.mobile}");

                }

            }

            //lamda
            cust.ToList().Where(c => c.name == "Vamsi").ToList().ForEach(c =>
Console.WriteLine($"id = {c.id}, name = {c.name}, mobile = {c.mobile}"));

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

Output:



Product Class 2

Code:

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

namespace ProductCustom_ArrayObject
{
    class Product
    {
        public int id;
```

```
        public string name;
        public int price;
    }

    internal class Program
    {
        static void Main(string[] args)
        {
            Product[] pro = new Product[]
            {
                new Product() {id = 1, name = "Sai", price = 100},
                new Product() {id = 2, name = "Vamsi", price = 99},
                new Product() {id = 3, name = "Krishna", price = 88},
                new Product() {id = 4, name = "Pavan", price = 77},
                new Product() {id = 5, name = "Manoj", price = 66}
            };

            //for loop
            for (int i = 0; i < pro.Length; i++)
            {
                if(pro[i].price >= 70)
                {
                    Console.WriteLine($"id = {pro[i].id}, name = {pro[i].name},
price= {pro[i].price}");

                }

            }

            //foreach
            foreach (var p in pro)
            {
                if(p.price >= 70)
                {
                    Console.WriteLine($"id = {p.id}, name = {p.name}, price =
{p.price}");

                }

            }

            //lamda
            pro.ToList().Where(p => p.price >= 70).ToList().ForEach(p =>
Console.WriteLine($"id = {p.id}, name = {p.name}, price = {p.price}"));

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

Output:

NB Healthcare Technologies Pvt Ltd