

PEMROGRAMAN

Class dan Object

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<http://coding4ever.net/>

<https://github.com/rudi-krsoftware/open-retail>

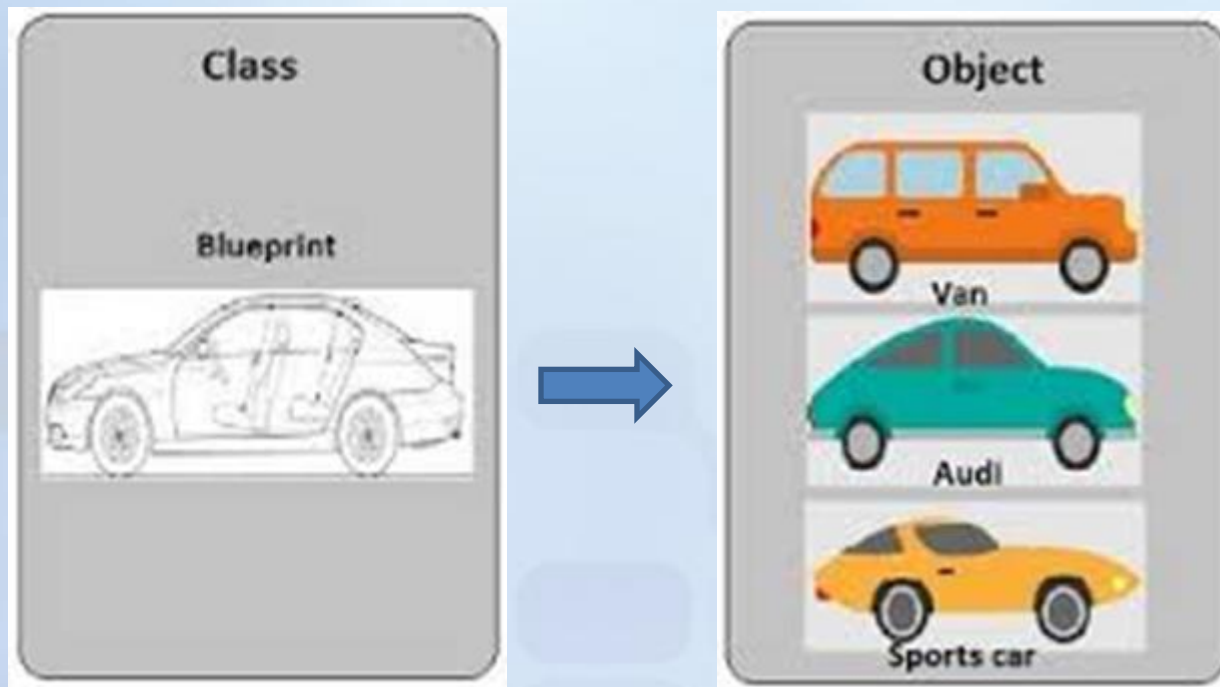
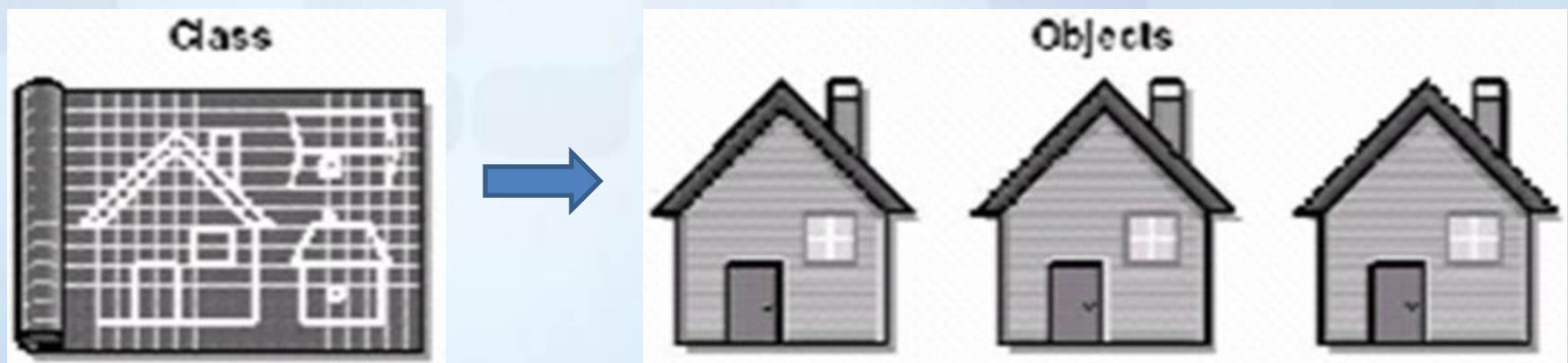
OOP (Object-oriented Programming)

Class & Object

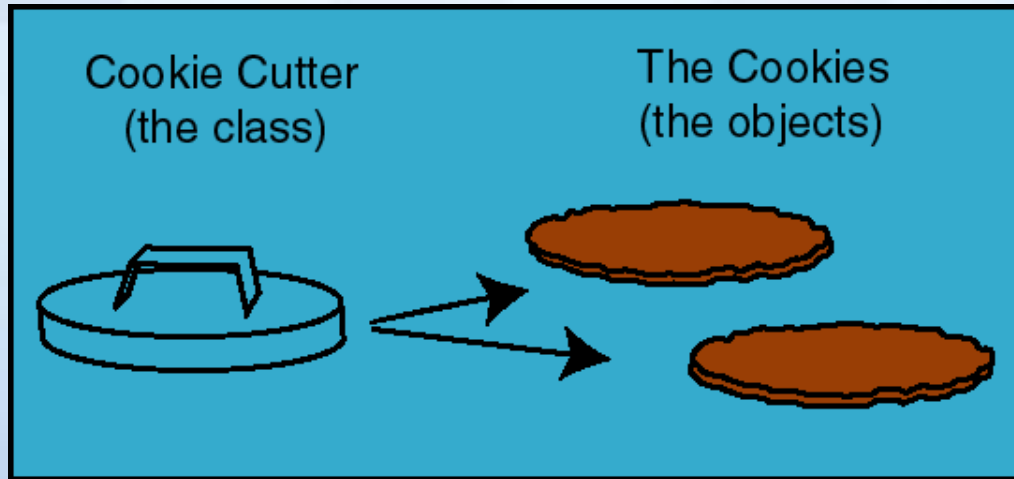
OOP



Class vs Object

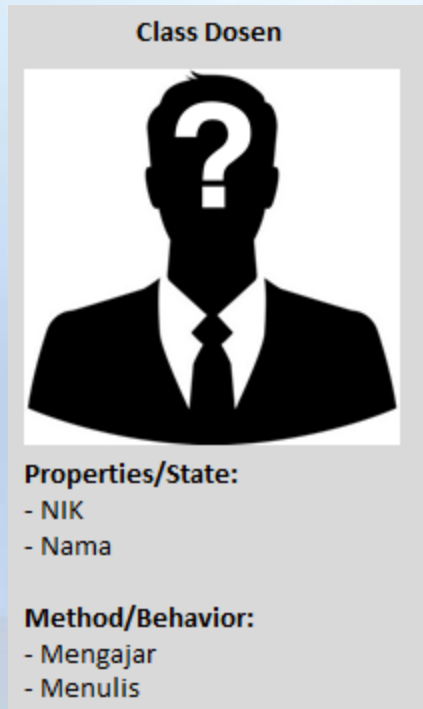


Class vs Object



Kesimpulannya ?

Class adalah rancangan atau blueprint yang berisi rincian dari sebuah objek.

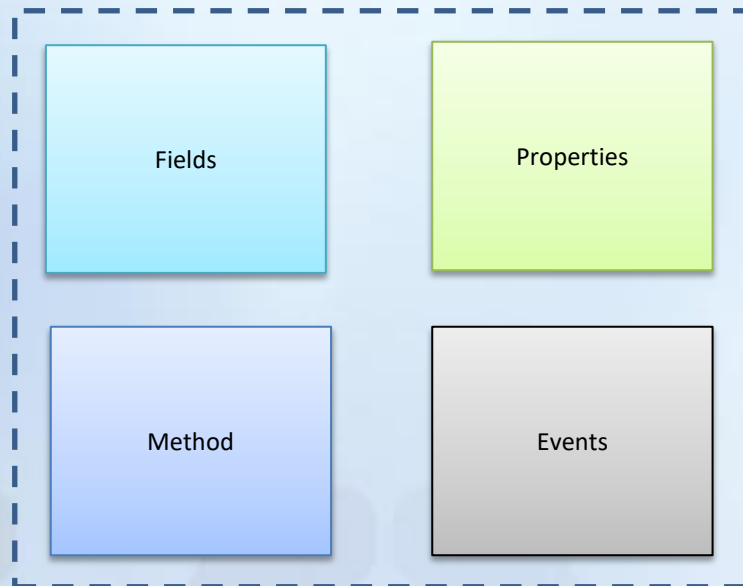


Objek adalah *instance*, wujud dari sebuah class. Objek lokasinya di memory, dibuat ketika program dijalankan.



Class Member

Class member



Class Dosen



Properties/State:

- NIK
- Nama

Method/Behavior:

- Mengajar
- Menulis

Latihan 1 – Membuat Class

```
Mahasiswa.cs
[LatihanClassDanObject] LatihanClassDanObject

7 namespace LatihanClassDanObject
8 {
9     public class Mahasiswa
10    {
11        // properties
12        public string Nim { get; set; }
13        public string Nama { get; set; }
14        public float Ipk { get; set; }
15
16        // method
17        public void Registrasi()
18        {
19            Console.WriteLine("Nama: {0}", Nama);
20            Console.WriteLine("NIM: {0}", Nim);
21            Console.WriteLine("IPK: {0}", Ipk);
22            Console.WriteLine("\nTelah melakukan registrasi");
23        }
24
25        public void IsiKrs()
26        {
27            Console.WriteLine("{0} sedang melakukan proses Krs", Nama);
28        }
29    }
30 }
31
```

Latihan 1 – Membuat Object

- Untuk membuat *object* atau yang disebut dengan *instance* class, caranya sama seperti membuat sebuah variabel.

Contoh:

```
int a;  
int b = 10;  
int c = b;  
  
Mahasiswa mhs1;  
Mahasiswa mhs2 = new Mahasiswa();  
Mahasiswa mhs3 = mhs2;
```

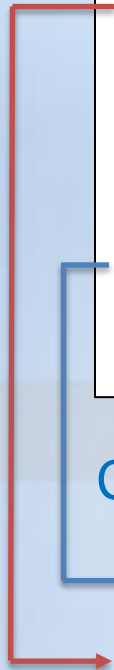
Class

Object

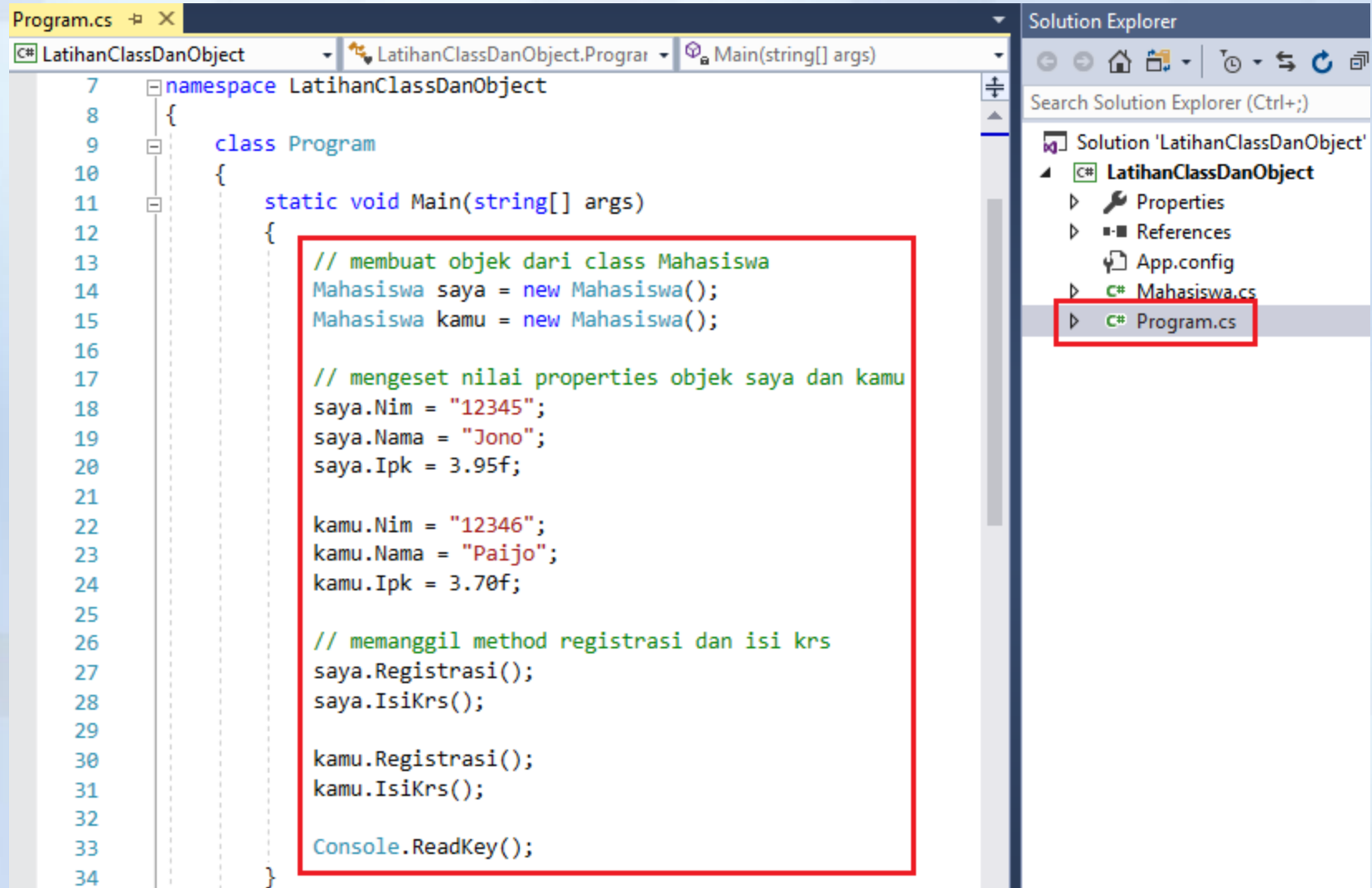
Constructor

Reference types

Values types



Latihan 1 – Membuat Object (Kode)



The image shows a Visual Studio IDE with a C# project named 'LatihanClassDanObject'. The main code file, 'Program.cs', contains the following code:

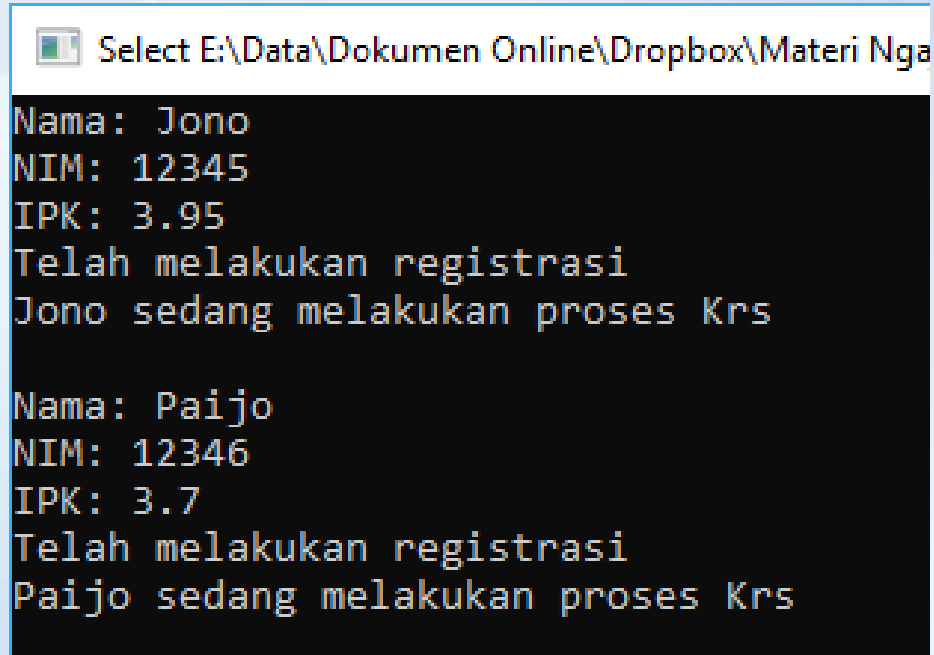
```
7 namespace LatihanClassDanObject
8 {
9     class Program
10    {
11        static void Main(string[] args)
12        {
13            // membuat objek dari class Mahasiswa
14            Mahasiswa saya = new Mahasiswa();
15            Mahasiswa kamu = new Mahasiswa();
16
17            // mengeset nilai properties objek saya dan kamu
18            saya.Nim = "12345";
19            saya>Nama = "Jono";
20            saya.Ipk = 3.95f;
21
22            kamu.Nim = "12346";
23            kamu>Nama = "Paijo";
24            kamu.Ipk = 3.70f;
25
26            // memanggil method registrasi dan isi krs
27            saya.Registrasi();
28            saya.IsiKrs();
29
30            kamu.Registrasi();
31            kamu.IsiKrs();
32
33            Console.ReadKey();
34        }
35    }
36 }
```

The code is enclosed in a red box. The Solution Explorer on the right shows the project structure:

- Solution 'LatihanClassDanObject'
 - LatihanClassDanObject
 - Properties
 - References
 - App.config
 - C# Mahasiswa.cs
 - C# Program.cs

The 'Program.cs' file is highlighted with a red box.

Latihan 1 – Membuat Object (Output)



The image shows a screenshot of a Windows Explorer window. The title bar at the top reads "Select E:\Data\Dokumen Online\Dropbox\Materi Nga". The main content area is a black rectangle containing white text. The text is organized into two distinct blocks, each representing a student's information and their registration status. The first block is for a student named Jono, and the second block is for a student named Paijo. Each block lists the student's name, NIM (National Identification Number), and IPK (Grade Point Average), followed by a statement about their registration status.

```
Nama: Jono  
NIM: 12345  
IPK: 3.95  
Telah melakukan registrasi  
Jono sedang melakukan proses Krs  
  
Nama: Paijo  
NIM: 12346  
IPK: 3.7  
Telah melakukan registrasi  
Paijo sedang melakukan proses Krs
```

Selesai 😊