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Tugas: Pertemuan 7

The screenshot shows a development environment with two main windows. The top window is a code editor titled 'main.cs' containing the following C# code:

```
1 using System;
2
3 class Car {
4     public string model;
5     public string color;
6     public int year;
7
8     public static void Main() {
9         Car Ford = new Car();
10        Ford.model = "Mustang";
11        Ford.color = "Blue";
12        Ford.year = 2020;
13
14        Console.WriteLine(Ford.model);
15        Console.WriteLine(Ford.color);
16        Console.WriteLine(Ford.year);
17    }
18 }
19 // Sahel Muawwal
20 // 230204622021
```

The bottom window is a terminal or console window showing the output of the program:

```
Mustang
Blue
2020

...Program finished with exit code 0
Press ENTER to exit console.
```

The screenshot shows a C# development environment with the following details:

Code Editor (main.cs):

```
1  using System;
2
3  class Car {
4      public string model;
5      public string color;
6      public int year;
7
8      public Car(string modelName, string colorName, int modelYear) {
9          model = modelName;
10         color = colorName;
11         year = modelYear;
12     }
13
14     public static void Main() {
15         Car Ford = new Car("Mustang", "Blue", 2020);
16         Console.WriteLine(Ford.model);
17         Console.WriteLine(Ford.color);
18         Console.WriteLine(Ford.year);
19     }
20 }
21 // Sahel Muawwal
22 // 230204622021
```

Output Window (input):

```
Mustang
Blue
2020

...Program finished with exit code 0
Press ENTER to exit console.
```

PERCOBAAN 1

The screenshot shows a development environment with a code editor and a terminal window.

Code Editor (main.cs):

```
1 using System;
2
3 class Car {
4     public string model = "Mustang";
5 }
6
7 class HelloWorld {
8     public static void Main() {
9         Car Ford = new Car();
10        Console.WriteLine(Ford.model);
11    }
12 }
13 // Sahel Muawwal
14 // 230204622021
```

Terminal Output:

```
Mustang
...Program finished with exit code 0
Press ENTER to exit console.
```

PERCOBAAN 2

The screenshot shows a code editor window for a C# project. The file 'main.cs' contains the following code:

```
1 using System;
2
3 class Car {
4     private string model = "Mustang";
5
6     public string GetModel() {
7         return model;
8     }
9 }
10
11 class HelloWorld {
12     public static void Main() {
13         Car Ford = new Car();
14         Console.WriteLine(Ford.GetModel());
15     }
16 }
17 // SaheL Muawwal
18 // 230204622021|
```

The output window below the editor shows the program's execution:

```
Mustang
input
...Program finished with exit code 0
Press ENTER to exit console.[]
```

PERCOBAAN 3

The screenshot shows a C# development environment with the following details:

- Toolbar:** Run, Debug, Stop, Share, Save, Beautify.
- Code Editor:** File named "main.cs" containing the following C# code:

```
1 using System;
2
3 class Car {
4     protected string model = "Mustang";
5 }
6
7 class Bus : Car {
8     public static void Main() {
9         Bus Tayo = new Bus();
10        Console.WriteLine(Tayo.model);
11    }
12 }
13 // Sahel Muawwal
14 // 230204622021
```
- Output Window:** Shows the console output:

```
Mustang
input
...Program finished with exit code 0
Press ENTER to exit console.[]
```

```
main.cs
1 using System;
2
3 abstract class Animal {
4     public abstract void animalSound();
5
6     public void sleep() {
7         Console.WriteLine("Zzz");
8     }
9 }
10
11 class Cat : Animal {
12     public override void animalSound() {
13         Console.WriteLine("Meowww");
14     }
15 }
16
17 class Program {
18     static void Main() {
19         Cat kucing = new Cat();
20         kucing.animalSound(); // Memanggil method override
21         kucing.sleep(); // Memanggil method dari base class
22     }
23 }
24 // Sahel Muawwal
25 // 230204622021
```

```
Meowww
Zzz

...Program finished with exit code 0
Press ENTER to exit console.
```

1.abstract class Animal

- Punya **abstract method** animalSound() → tidak ada body, wajib dioVERRIDE di turunan.
- Punya **regular method** sleep() → bisa langsung dipakai oleh semua turunan.

2.class Cat : Animal

- Meng-**inherit** class Animal.
- Wajib override method animalSound(), di sini hasilnya "Meowww".

2.Program Main

- Membuat object Cat.

Soal

1. buatlah 1 abstraksi kelas yang di dalamnya terdapat 3 abstrak method, lalu buat objeknya, kelas turunannya, dan jalankan method tersebut pada objek yang telah di buat

Analisi:

1. Abstract Class (Kendaraan)

- Tidak bisa dibuat objek langsung.
- Berisi **3 abstract method**: Start(), Drive(), Stop().
→ Method ini hanya dideklarasikan tanpa body, sehingga **wajib dioVERRIDE** oleh kelas turunan.
- Berisi juga **1 regular method** Info() yang bisa langsung dipakai oleh kelas turunan tanpa perlu override.

2. Kelas Turunan (Mobil)

- Mobil meng-**inherit** dari Kendaraan.
- Karena Kendaraan punya 3 abstract method, maka Mobil wajib memberikan implementasi (override) untuk semua method tersebut.
- Isi method di-override dengan perilaku khusus untuk objek Mobil.

3. Main Program (Program)

- Membuat objek Mobil avanza = new Mobil();
- Objek avanza dapat memanggil semua method:
 - Info() → method biasa dari parent.
 - Start(), Drive(), Stop() → hasil override dari child.

