

En cada uno de los siguientes programas, identifique si se usa el patrón builder o no y justifique el porqué.

### 1. Producto Coche

```
public class CocheBuilder {  
    public String marca;  
    public String modelo;  
    public int precio;  
    public String color;  
    public Coche coche;  
  
    public CocheBuilder() {  
        this.coche = new Coche();  
    }  
  
    public void setMarca(String marca) {  
        this.marca = marca;  
        this.coche.marca = marca;  
    }  
  
    public void setModelo(String modelo) {  
        this.modelo = modelo;  
        this.coche.modelo = modelo;  
    }  
  
    public void setPrecio(int precio) {  
        this.precio = precio;  
        this.coche.precio = precio;  
    }  
  
    public void setColor(String color) {  
        this.color = color;  
        this.coche.color = color;  
    }  
  
    public void construir() {  
        System.out.println("Coche construido!");  
    }  
  
    public Coche getCoche() {  
        return this.coche;  
    }  
}
```

```
public class Coche {  
    public String marca;  
    public String modelo;  
    public int precio;  
    public String color;  
  
    @Override  
    public String toString() {  
        return "Coche{" +  
            "marca='" + marca + '\'' +  
            ", modelo='" + modelo + '\'' +  
            ", precio=" + precio +  
            ", color='" + color + '\'' +  
            '}';  
    }  
}
```

```

public class Main {
    public static void main(String[] args) {
        CocheBuilder builder = new CocheBuilder();

        builder.setMarca("Toyota");
        builder.setModelo("Corolla");
        builder.setPrecio(25000);
        builder.setColor("Rojo");
        builder.construir();

        Coche coche = builder.getCoche();
        System.out.println(coche);

        coche.color = "Azul";
        System.out.println(coche);
    }
}

```

## 2. AWS

```

AmazonS3 s3Client = AmazonS3ClientBuilder.standard()
    .withRegion(Regions.US_WEST_2)
    .withCredentials(new DefaultAWSCredentialsProviderChain())
    .build();

PutObjectRequest request = new PutObjectRequest()
    .withBucket("my-bucket")
    .withKey("my-key")
    .withFile(new File("/path/to/file"));

```

## 3. Person

```

public class Person {
    private int id;
    private String name;
    private String email;
    private List<Phone> phones;

    public void setId(int id) {
        this.id = id;
    }

    public void setName(String name) {
        this.name = name;
    }
}

public class Application {
    public static void main(String[] args) {
        Person person = new Person();
        person.setId(1234);
        person.setName("John");
        person.setEmail("john@example.com");
        person.getPhones().add(new Phone("555-1234"));
    }
}

```

#### 4. SpringBoot Java

```
String url = UriComponentsBuilder.newInstance()  
    .scheme("https")  
    .host("example.com")  
    .path("/users")  
    .queryParams("id", "123")  
    .build()  
    .toUriString();
```

#### 5. MongoDB

```
Document doc = new Document.Builder()  
    .add("name", "John")  
    .add("age", 30)  
    .add("city", "New York")  
    .build();
```

#### 6. Document

```
public class Document {  
    private Map<String, Object> fields = new HashMap<>();  
  
    public void addField(String key, Object value) {  
        fields.put(key, value);  
    }  
}  
  
public class Application {  
    public static void main(String[] args) {  
        Document doc = new Document();  
        doc.addField("name", "John");  
        doc.addField("age", 30);  
        doc.addField("city", "New York");  
    }  
}
```