Read- only properties

يمكن تعيين قيمتها مرة واحدة فقط

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In PHP, a read-only property is a class property that can be accessed (read) but cannot be modified (written to) after it has been initialized. This concept can be implemented using a combination of visibility keywords,(private or protected) a constructor for initialization, and no setter method or public access to modify the property

simple example

```
 public function __construct($value) {
        $this->readOnlyProperty = $value; // Initialize the property in the
constructor
      }

       public function getReadOnlyProperty() {
            return $this->readOnlyProperty; // Provide a getter to access the
property
       }
    }

    // Usage
    $example = new ReadOnlyExample("Hello, World!");
    echo $example->getReadOnlyProperty();
```

Starting from PHP 8.1, you can define properties as read-only directly using the readonly keyword. This provides a more explicit and cleaner way to declare a read-only property.

```php
class User {
    public readonly string $username;
    public readonly int $id;

    public function __construct(string $username, int $id) {
        $this->username = $username;
        $this->id = $id;
    }
}
```

Once they are set in the constructor, they cannot be modified later in the code.

The advantages of Read-only Properties

- **Immutability**:
  - Read-only properties provide a way to enforce immutability within an object. Once set, the values of these properties cannot be changed, preventing accidental or intentional modification of important data.
- **Data Integrity**:

- By preventing changes to certain properties, you ensure that the object's state remains consistent throughout its lifecycle. This is particularly useful when working with value objects or entities that should not change after being created (e.g., user IDs, email addresses, timestamps).

- **Simpler Code**:
  - Read-only properties simplify code and reduce bugs because developers don’t have to worry about accidentally altering the state of an object after its construction.