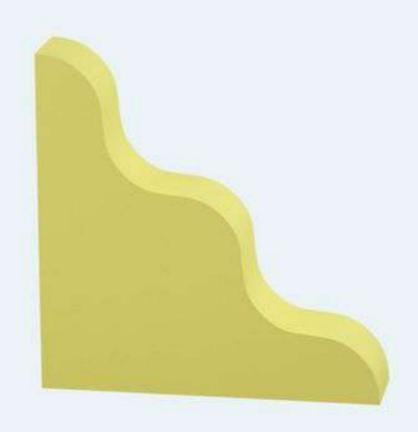
JAVA 8

What is the use of Optional?



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We all are familiar with *NullPointerException* and need to apply so many null check to handle it. If we don't handle it properly then it will crash our code. Optional helps us to write clean code without so many null checks. By using Optional, we can specify alternate values to return.

Example: The below snippet will throw an exception as there is no null handling in the code.

```
public class OptionalDemo {
    public static void main(String[] args)
    {
        String[] words = new String[10];
        //trying to access 2nd index of empty string
        String word = words[2].toLowerCase();
        System.out.print(word);
    }
}

//output :
Exception in thread "main" java.lang.NullPointerException
```

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This situation can be handled by using Optional class. It is a container class which represents the existence or absence of a value.

Example: Output will be: word is null in the below code snippet.

```
public class OptionalDemo {
    public static void main(String[] args) {
        String[] words = new String[10];
        //returns value if the value presents
        //otherwise returns null
        Optional<String> checkNull
                = Optional.ofNullable(words[5]);
        //If a value is present,
        //isPresent() will return true
        if (checkNull.isPresent()) {
            String word = words[5].toLowerCase();
            System.out.print(word);
       // as there is no value present,
        // the else part will be executed
        else
            System.out.println("word is null");
```