

JAVA 8

Different useful methods of
Optional



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- **Optional.empty()** returns an empty instance of Optional class.

```
public class OptionalDemo {  
    public static void main(String[] args) {  
        Optional<String> optional = Optional.empty();  
        System.out.println(optional);  
    }  
}  
//Output :  
// Optional.empty
```

- **Optional.of()** returns non-empty instance of Optional class. We are trying to access 1st index of String which is non-empty.

```
public class OptionalDemo {  
    public static void main(String[] args) {  
        String[] str = new String[5];  
        str[1] = "welcome !";  
        Optional<String> optional = Optional.of(str[1]);  
        System.out.println(optional);  
    }  
}  
//output :  
//Optional[welcome !]
```

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- Use **.get()** method to retrieve the value, if the value is not present then it will throw **NoSuchElementException** error .

```
public class OptionalDemo {  
    public static void main(String[] args) {  
        String[] str = new String[5];  
        str[1] = "welcome !";  
        Optional<String> value = Optional.of(str[1]);  
        System.out.println(value.get());  
    }  
}  
//output  
//welcome !
```

- The better approach would be to check the presence of the value via **.isPresent()** method beforehand and if the value is available then use **.get()** method.

```
public class OptionalDemo {  
    public static void main(String[] args) {  
        String[] str = new String[5];  
        str[1] = "welcome !";  
        Optional<String> value = Optional.of(str[1]);  
        if (value.isPresent()) {  
            System.out.println(value.get());  
        } else {  
            System.out.println("No value is available");  
        }  
    }  
}
```


- The another important method is **.ofNullable()**. It returns non-null value if it is available otherwise it returns an empty Optional.

```
public class OptionalDemo {  
    public static void main(String[] args) {  
        String[] str = new String[5];  
        str[1] = "welcome !";  
        // value available so returns value  
        Optional<String> value = Optional.of(str[1]);  
        System.out.println(value);  
        // No value available so returns empty Optional  
        Optional<String> value1 = Optional.ofNullable(str[2]);  
        System.out.println(value1);  
    }  
}  
//output  
//Optional[welcome !]  
//Optional.empty
```