



Difference between Optional.of() and Optional.ofNullable()

The primary difference lies in how they handle `null` values passed to them.

1. `Optional.of(T value)`:

- **Strict behavior:** It expects a `non-null` value.
- **Result:** If you pass `null`, it immediately throws a `NullPointerException`.^[1] ^[2]
- **Use Case:** Use this when your logic guarantees the value *must* be present, and a `null` value would indicate a serious bug in your code that you want to catch immediately (Fail-fast).^[3]

2. `Optional.ofNullable(T value)`:

- **Safe behavior:** It accepts **both** `null` and non-null values.
- **Result:** If you pass `null`, it returns `Optional.empty()`. If non-null, it wraps the value.^[4] ^[5]
- **Use Case:** Use this when working with external data (like DB results or API responses) where `null` is a valid possibility representing "nothing found."^[6] ^[3]

Code Comparison:

```
String name = null;

// Throws NullPointerException
Optional<String> opt1 = Optional.of(name);

// Returns Optional.empty() - Safe
Optional<String> opt2 = Optional.ofNullable(name);
```

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1. <https://stackoverflow.com/questions/31696485/why-use-optional-of-over-optional-ofnullable>
2. <https://www.youtube.com/watch?v=M3rqS7lnfDQ>
3. https://www.reddit.com/r/java/comments/1jtmcra/why_do_we_have_optionalof_and_optionalofnullable/
4. <https://www.baeldung.com/java-optional-of-vs-optional-ofnullable>
5. <https://www.geeksforgeeks.org/java/optional-ofnullable-method-in-java-with-examples/>
6. https://www.linkedin.com/posts/dbhanushali_java-javas-optional-activity-7371877163211505665-_Osw
7. <https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/attachments/images/81815274/429036f4-3bc3-4a7a-8c6f-90246e73b9b9/image.jpg>

8. https://www.linkedin.com/posts/kablu-mandal-786b2024_java-optional-cleancode-activity-7364122457105981440-O_QF
9. https://www.reddit.com/r/java/comments/1jtmcra/why_do_we_have_optionalof_and_optionalofnullable/mhv9hg4/
10. <https://www.inflearn.com/community/questions/1243381/optional-of-vs-optional-ofnullable>
11. <https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/attachments/images/81815274/24f18c0a-b56e-4862-a619-e2959036a5c2/image.jpg>
12. <https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/attachments/images/81815274/97e9ed86-ed11-4035-a18b-1eb05c1bab4e/image.jpg>
13. <https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/attachments/images/81815274/87f62423-96f2-4071-9802-8f6699e0ecd8/image.jpg>
14. <https://stackoverflow.com/questions/53810048/java-8-optional-why-of-and-ofnullable>