

# 1.4

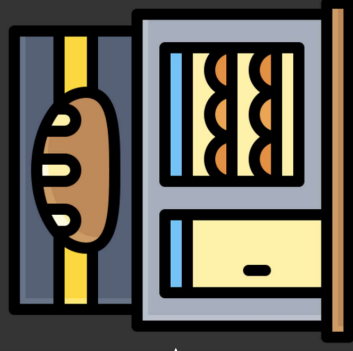
## Dependency Injection



# Dependency Injection

Frosting

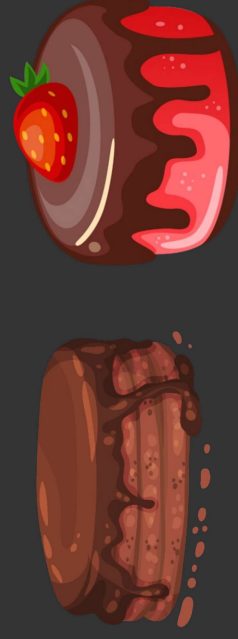
Syrup



Alice



Bob



# Dependency Injection

Dependency Injection (DI) in the context of the Spring Framework is a design pattern and technique used to achieve loose coupling between components in a software application. In a DI scenario, instead of a component creating its dependencies directly, the dependencies are injected into the component from an external source, typically managed by a framework like Spring.

# Benefits of Dependency Injection

**Loose Coupling:** Components are decoupled from their dependencies making them easier to maintain and test.

**Flexible Configuration:** Dependencies can be configured externally allowing for easier customization and swapping of components.

**Improved Testability:** Components can be easily mocked or replaced during testing, allowing for more thorough and isolated unit tests.

# How to Inject Dependencies



## Constructor Injection

Dependencies are provided through a class constructor.



## Field Injection

Dependencies are provided directly into the fields of a class using `@Autowired`

