1.4

Dependency Injection

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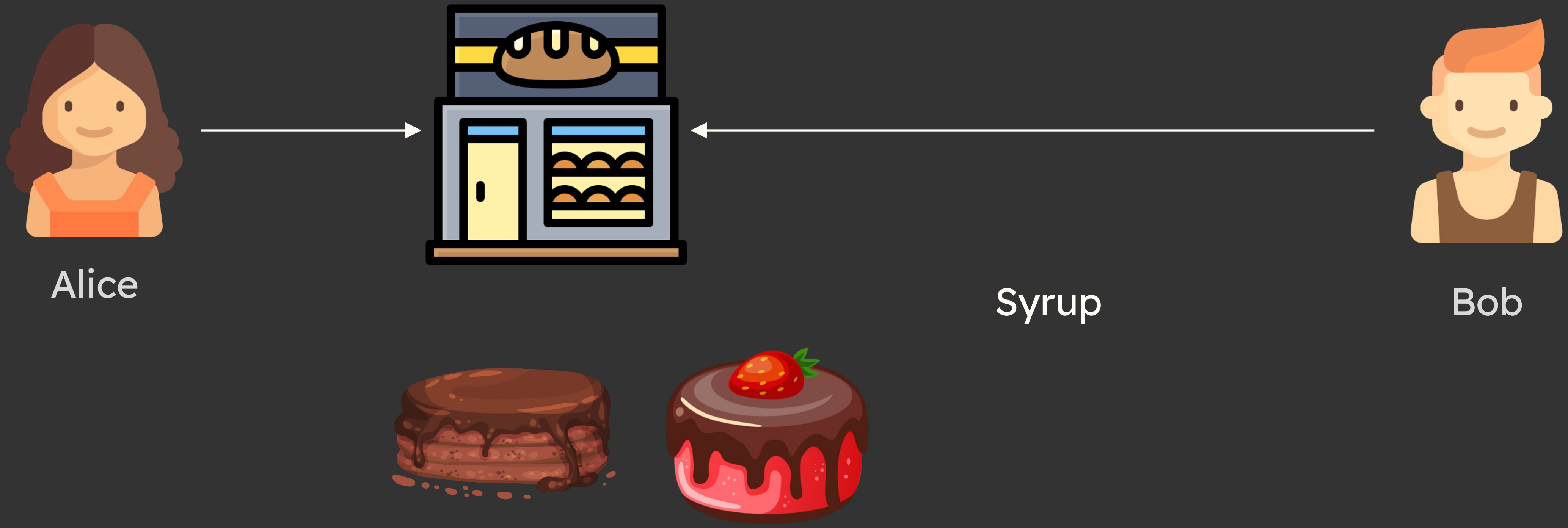

Frosting

Alice

Syrup

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