

Externalizing Configuration with @Value Annotation

Spring Feature Description

Spring allows you to externalize configuration to properties files, enabling you to modify application behavior without changing code. The `@Value` annotation can inject property values into beans, facilitating dynamic configuration.

Why Do We Need It in Flight Application?

Currently, the path to the CSV file is hardcoded in `CSVDataLoader`, making it difficult to change without modifying code. By externalizing this configuration, we can easily change the file path as needed, enhancing flexibility and maintainability.

Refactoring Application

We will:

- Create an `application.properties` file.
- Move the CSV file path into this properties file.
- Use the `@Value` annotation to inject the property into `CSVDataLoader`.

Update The Code

- **Create `application.properties`**

Add a file named `application.properties` in the `src/main/resources` directory. This file will hold externalized configurations.

- **Inject Property Using `@Value`**

Modify `CSVDataLoader` to use the `@Value` annotation to inject the file path property. This allows you to replace hardcoded values with external configurations.

You will retrieve the property using the syntax `${property.name}` where `property.name` corresponds to the key in the `application.properties` file.

Benefits of Using Externalized Configuration

- **Flexibility:** Easily change configuration without modifying code.
- **Environment-Specific Settings:** Different properties files can be used for different environments.
- **Maintainability:** Centralizes configuration, making it easier to manage.

Further Advices

For sensitive configurations, consider using encrypted properties or external configuration servers. Also, explore using `@ConfigurationProperties` for complex configuration mappings.