



# Internationalization

## Spring MVC

# Internationalization

- Often abbreviated as i18n (I18N).
  - i + 18 characters in 'internationalization' + n
- Localization - l10n (L10N)
- Fairly broad topic
  - Languages, Currencies, Layouts

# i18n with Spring MVC

- i18n in a Spring MVC context generally is looking at support for languages
- Driven by 'accept-language' request header
- 'en-US' - 'en' is the language code, 'US' is the country code

# i18n Standards

- Language identifiers were established by RFC 3066 in 2001
- Language Codes are governed by ISO 639
  - ISO - International Organization for Standardization
- Region codes are governed by ISO 3166
  - Can refer to countries, regions, territories, etc.

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# Locale Detection

- Default behavior is to use Accept-Language header
- Can be configured to use system, a cookie, or a custom parameter.
- Custom Parameter is useful to allow user to select language.

# Locale Resolvers

- AcceptHeaderLocaleResolver is the Spring Boot Default
- Optionally, can use FixedLocaleResolver
  - Uses the locale of the JVM
- Available: CookieLocaleResolver, SessionLocaleResolver



# Changing Locale

- Browsers are typically tied to the Locale of the operating system
- Locale changing plugins are available
- Spring MVC provides as `LocaleChangeInterceptor` to allow you to configure a custom parameter to use to change the locale.

# Resource Bundles

- Resource bundles (aka `messages.properties`) are selected on highest match order.
- First selected will be on language region
  - ie `en-US` would match `messages_en_US.properties`

# Resource Bundles

- If no exact match is found, just the language code is used.
- en-GB would match `messages_en_GB.properties`
- OR if no file found, would match `messages_en.properties`
- Finally would match `messages.properties`

