## **Notes**

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# Reactor with spring

## Linking a spring event to a Flux

Create a sink

```
// The exact config depends on the needs
Sinks.Many<Event> sink = Sinks.many().replay().limit(1);

@EventListener(Event.class)
public void onTick(Event event) {
    sink.tryEmitNext(event);
}

public Flux<Event> someMethod() {
    return sink.asFlux();
}
```

## HTMX with Spring boot and flux

### Configure maven

```
<dependency>
        <groupId>nz.net.ultraq.thymeleaf</groupId>
        <artifactId>thymeleaf-layout-dialect</artifactId>
    </dependency>
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-webflux</artifactId>
    </dependency>
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-web</artifactId>
    </dependency>
    <dependency>
        <groupId>org.projectlombok</groupId>
        <artifactId>lombok</artifactId>
        <optional>true</optional>
    </dependency>
    <dependency>
        <groupId>org.webjars</groupId>
        <artifactId>webjars-locator</artifactId>
        <version>0.46</version>
    </dependency>
    <dependency>
        <groupId>org.webjars.npm</groupId>
        <artifactId>htmx.org</artifactId>
        <version>1.9.6
    </dependency>
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-test</artifactId>
        <scope>test</scope>
    </dependency>
    <dependency>
        <groupId>io.projectreactor</groupId>
        <artifactId>reactor-test</artifactId>
        <scope>test</scope>
    </dependency>
</dependencies>
```

## Basic template configuration

#### main.html

```
<meta charset="UTF-8">
        <meta content="width=device-width, initial-scale=1" name="viewport">
        <title></title>
        <!-- <link-->
        <!--
                        rel="stylesheet"-->
        <!--
href="https://cdn.jsdelivr.net/npm/@picocss/pico@2/css/pico.min.css"-->
        <!--
               />-->
    </head>
    <body>
        <main layout:fragment="content">
        </main>
        <script th:src="@{/webjars/htmx.org/dist/htmx.min.js}"</pre>
type="text/javascript"></script>
        <script th:src="@{/webjars/htmx.org/dist/ext/sse.js}"</pre>
type="text/javascript"></script>
        <th:block layout:fragment="script-content">
        </th:block>
    </body>
</html>
```

#### index.html

### Push from the backend

```
@GetMapping("/time")
public Flux<ServerSentEvent<String>> progress() {
    return timeFlux
        .map(e -> ServerSentEvent.<String>builder().data("<div>"+ e +
"</div>").build());
}
```

```
<div hx-ext="sse" sse-connect="/time" sse-swap="message">
   --- This will be replaced by the response of /time ---
</div>
```

### Get data at page load (lazy loading)

```
<div hx-get="/versions" hx-trigger="load">
   --- This will be replaced by the response of /time ---
</div>
```

## Render the template on demand

```
import org.thymeleaf.TemplateEngine;

@Autowired
private final TemplateEngine templateEngine;

private String render(String template, Map<String, Object> parameter) {
    IContext context = new Context(Locale.getDefault(), parameter);
    return templateEngine.process(template, context).replace("\r", "").replace("\n", "");
}
```

### Clear content on sse connection error