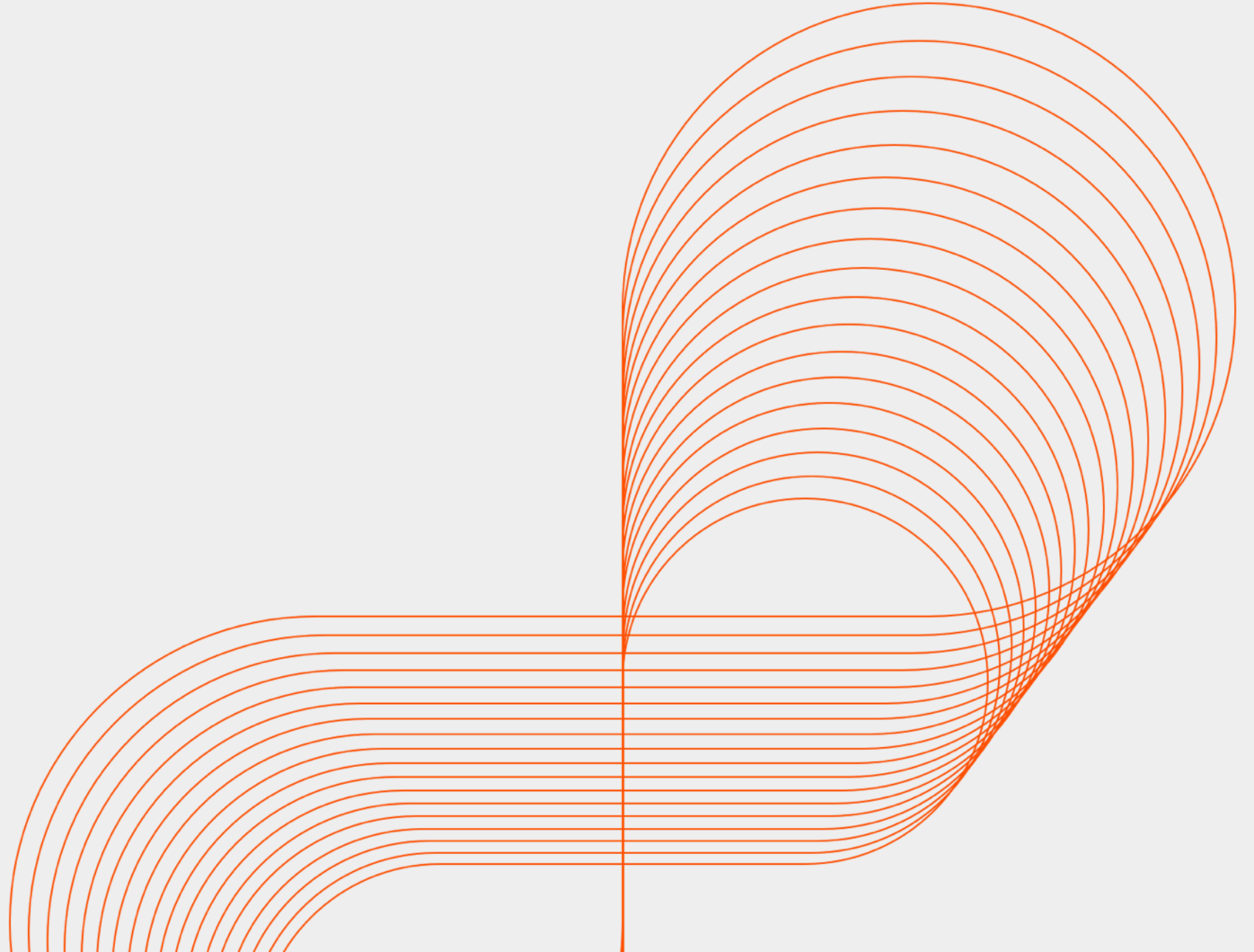




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# **Servlet III**

Exception Handling



# Agenda

- Error codes and exception handling with a servlet
- Custom error pages

## Status codes and error codes

- The `javax.servlet.http.HttpServletResponse` interface defines many integral constants representing various HTTP status codes.
- These status codes can be classified as
  - 1xx for informational purpose
  - 2xx for success codes
  - 3xx for codes related to redirection
  - 4xx for client errors
  - 5xx for server errors
- There are two methods in `javax.servlet.http.HttpServletResponse` interface viz.
  - `setStatus(int)` for sending informational, success and redirection codes
  - `sendError(int)` for sending client and server error codes

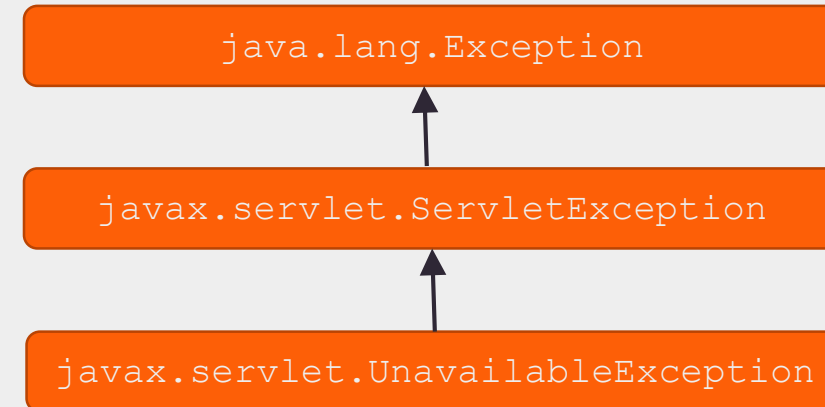
## Error codes

- If an error code is sent to the client the container serves a pre-defined error page in the response.
- Programmers can customize this behavior by creating their own error pages having them served instead.
- This is a two step process
  - Create either a html or jsp page
  - Write a error-page tag in the deployment descriptor which maps the error code to the error page you created
- For the custom error page mechanism to be effectively triggered by the web container, error codes must be sent through the `sendError( )` method

```
<error-page>  
    <error-code>500</error-code>  
    <location>/some-error-page.jsp</location>  
</error-page>
```

# Exception handling

- A servlet's `init()` and `doXXX()` can throw any of the exceptions listed below if something goes wrong.
- For `doXXX()` methods:
  - `javax.servlet.UnavailableException` represents a serious failure on part of servlet. If a servlet throws this exception it cannot process any further requests unless the server administrator takes some explicit action. The servlet instance is destroyed after this exception is thrown.
  - `javax.servlet.ServletException` is a general purpose exception class. A servlet can continue to process subsequent requests if it throws this exception.
- For `init()` method
  - If any exception is thrown from the `init()` method it indicates that the servlet is unusable. This is as good as safely assuming that the servlet instance does not exist.



## Mapping exceptions to error pages

- Exceptions thrown from a servlet can also be mapped to custom error pages
- `javax.servlet.UnavailableException` cannot be directly mapped to a custom error page as illustrated above. It can be indirectly mapped to a error page through the HTTP 404 status code.

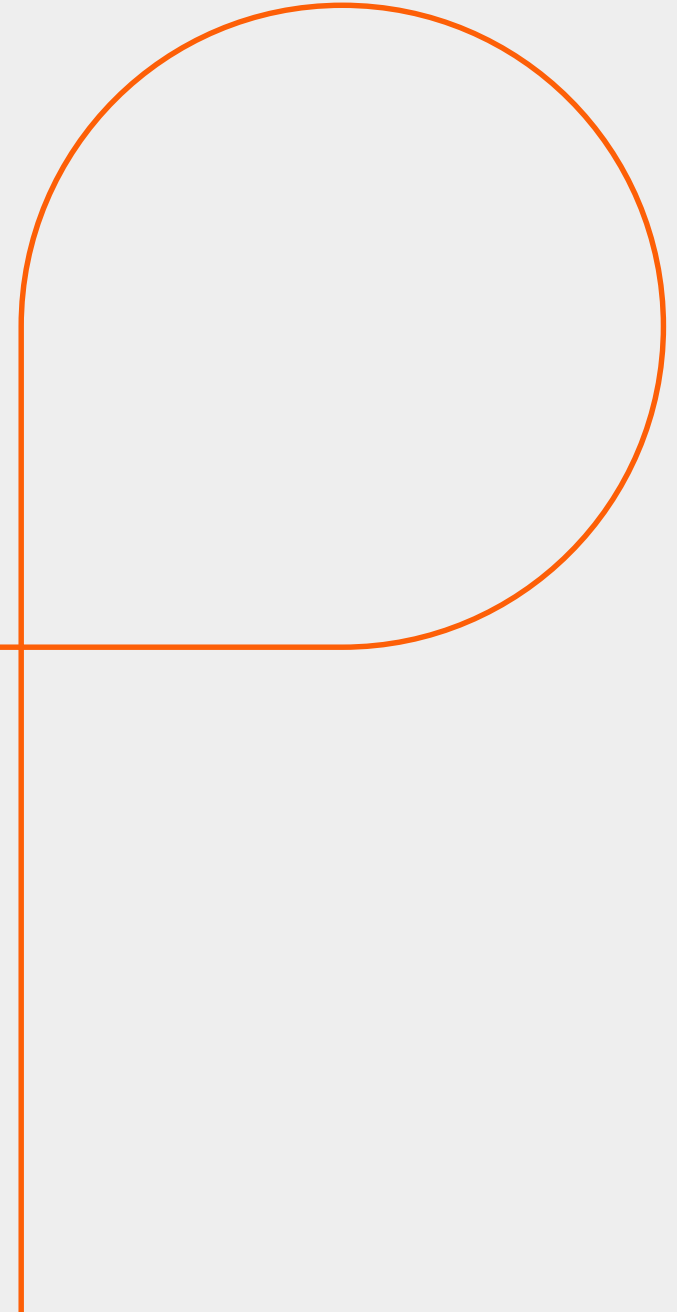
```
<error-page>
  <exception-type>
    javax.servlet.ServletException
  </exception-type>
  <location>/some-error-page.jsp</location>
</error-page>
```

## Summary:

- With this we have come to an end of our session, where we discussed :
  - Error codes and exception handling with a servlet
  - Custom error pages

# Appendix

Thank You







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**Thank you**

