Servlet related details

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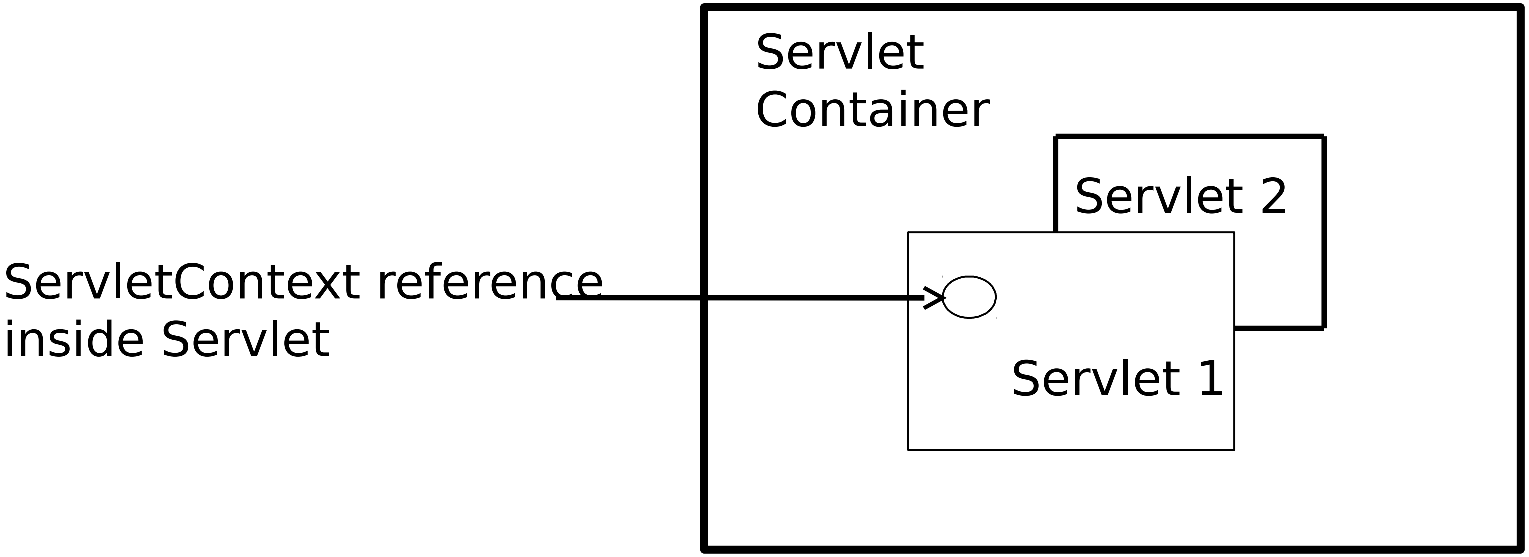
Topics

- Servlet Context
- Servlet Config
- Servlet Loading
- Spring’s ApplicationContext
- Spring’s WebApplicationContext
- Spring’s DispatcherServlet

ServletContext

- What is Servlet’s Context?
  - – The context within which the Servlet is running
    - The Servlet container!!!



Servlet Container

Servlet 2

Servlet 1

ServletContext reference inside Servlet

ServletConfig

- Used by Servlet container to pass configuration information to a Servlet during initialization
- ServletContext can be obtained from ServletConfig
- Save it in the init method if required to be used inside doGet/doPost method

Servlet Loading: Load on startup

- Servlet can be configured to be loaded on:
  - Servlet container starts up
  - When the first request hits the Servlet

- Starting up on container start up makes the Servlet ready when requests arrive; delaying it till the first request causes the first request to incur the start up latency

Starting up when Servlet container starts

- <load-on-startup>
- The Servlet starts up in the logical order determined by the value of the ``load-on-startup'' tag
- If the values are same then the initialization happens in the order in which the Servlets are defined in web.xml
- Examples:
  - Use test-load-on-startup
    - Show use of different values
    - Show use of same value for different Servlets

Servlet Initialization Parameters

- Parameters that are passed to a Servlet at the Servlet initialization time
    - Servlet config params
        - These apply to only that Servlet for which they are defined
        - Available via *ServletConfig* object
            - Example: test-load-on-startup
                - » printServletConfigParams()
    - Context init params
        - These apply to all Servlets defined in a deployment descriptor
        - Available via *ServletContext* object
            - Example: test-load-on-startup
                - » printServletContextParams()

ServletConfig vs. ServletContext

- ServletConfig □ Servlet’s Configuration
  - Servlet specific parameters

- ServletContext -> Servlet’s *Context (a.k.a: ServletContainer)*
  - *ServletContext* object pertains to parameters for *all* the Servlets

- Possible to obtain the *ServletContext* object from the *ServletConfig* object

Spring ApplicationContext

- Central interface to provide configuration for an application

- Details:
  - Bean factory methods to access application components
  - Inherits from parent’s application context if one is defined

Spring’s WebApplicationContext

- Interface to provide configuration of a web application
- Contains getServletContext() method to get the ServletContext

- How to get access to ApplicationContext within our Controller bean?
  - By implementing the ‘ApplicationContextAware’ interface

DispatcherServlet

- There can be more than one
  - One for UI-based web resources (forms)
  - One for REST API of your application
- Each DispatcherServlet has its own ApplicationContext
- All DispatcherServlets inherit the Root ApplicationContext via their respective ApplicationContexts