Advance Java

- Advance-Java is used to develop Web Applications.
- Advance-Java means JEE (Jakarta Enterprise Edition) formerly Java Enterprise Edition.

Java Editions

JSE(Standard Edition)

Used to develop Computer-based software

JEE(Enterprise Edition)

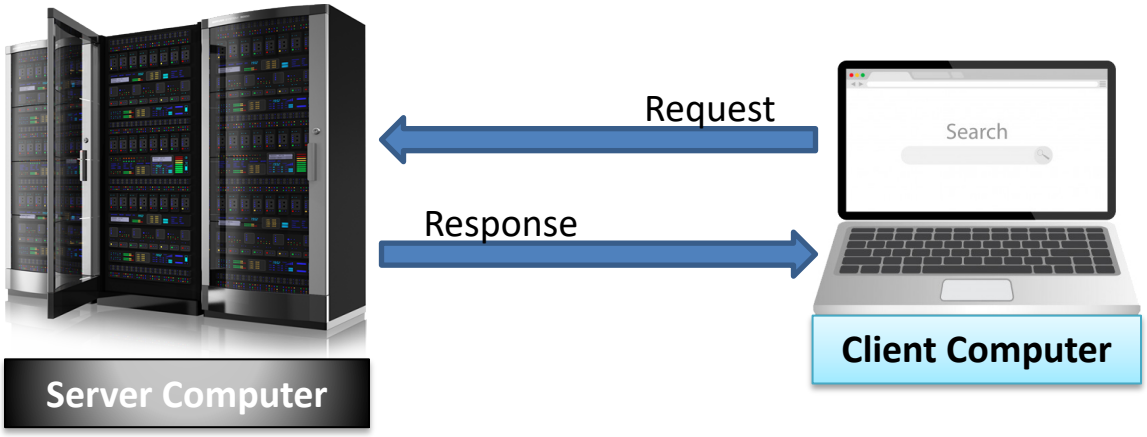
Used to develop Web application software

JME(Micro Edition)

Used to develop Embedded software

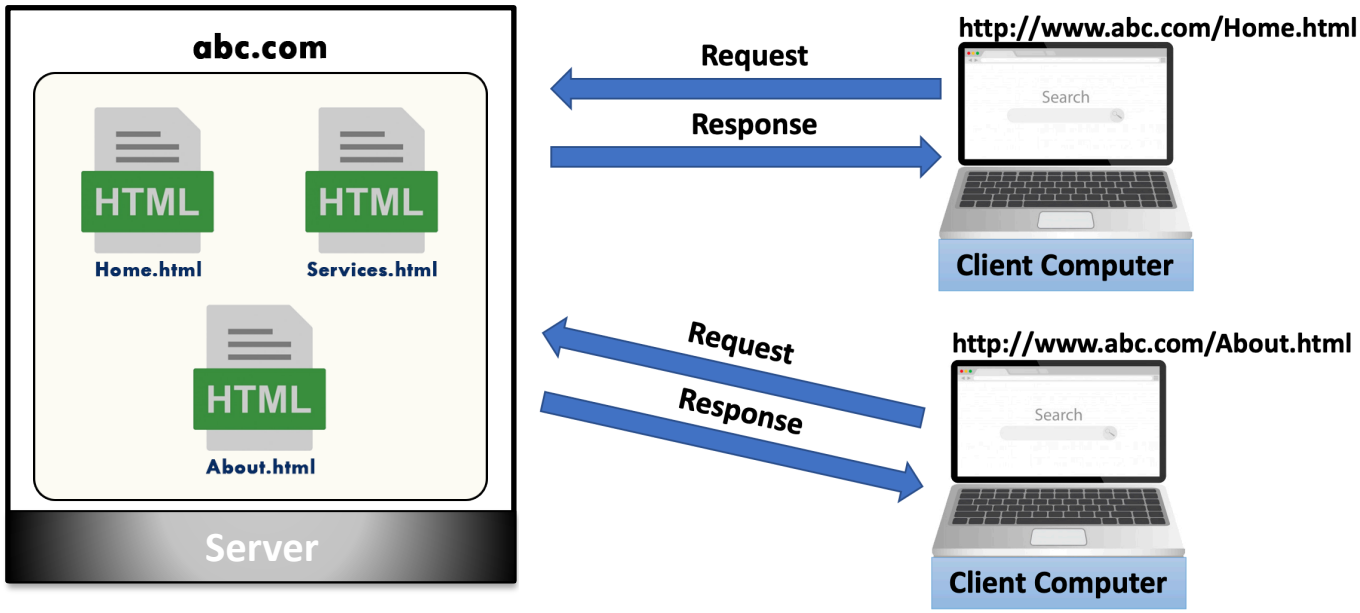
Web Application

- A web application is an application software that runs on a server. Web applications are accessed by the client/user through a web browser with an active internet connection.
  For example: Gmail, Amazon, Youtube, Facebook etc.
- Web application contains web pages.(Static and Dynamic both).



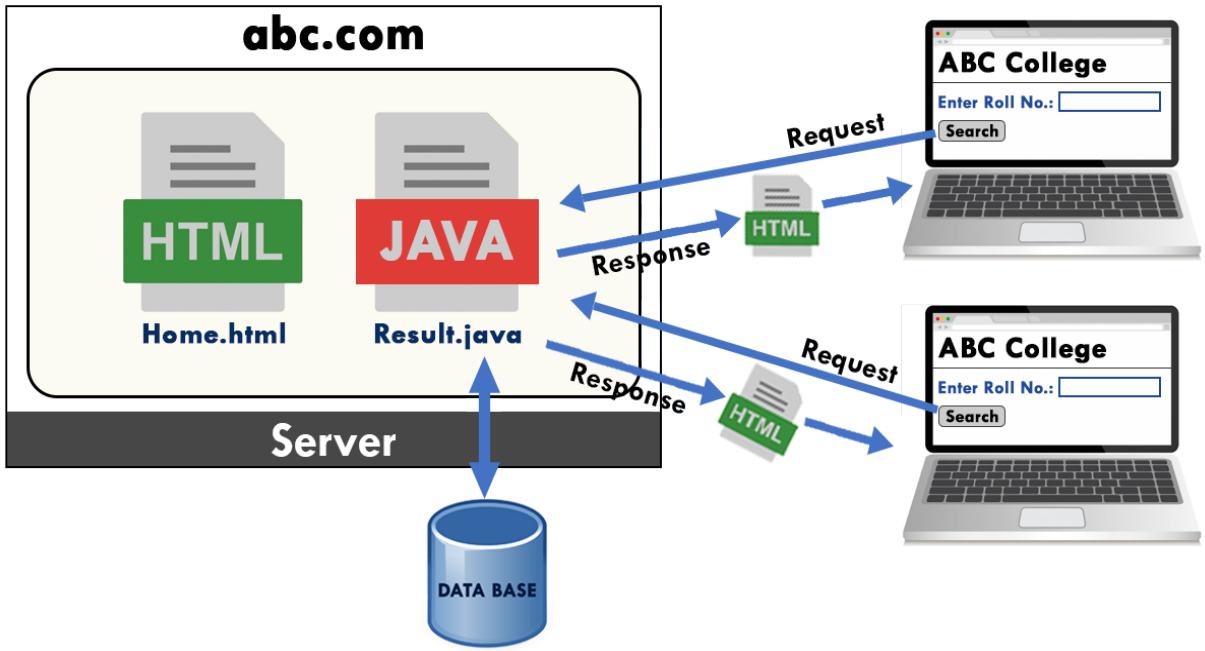
Static Web Page

- A web page that gives same output until and unless someone changes it manually is called **Static Web Page**.
- **Static web pages** are written in the HTML.
- Whenever server receives a request regarding a static web page, it sends a response along with the requested web page to the client without performing any additional processing.



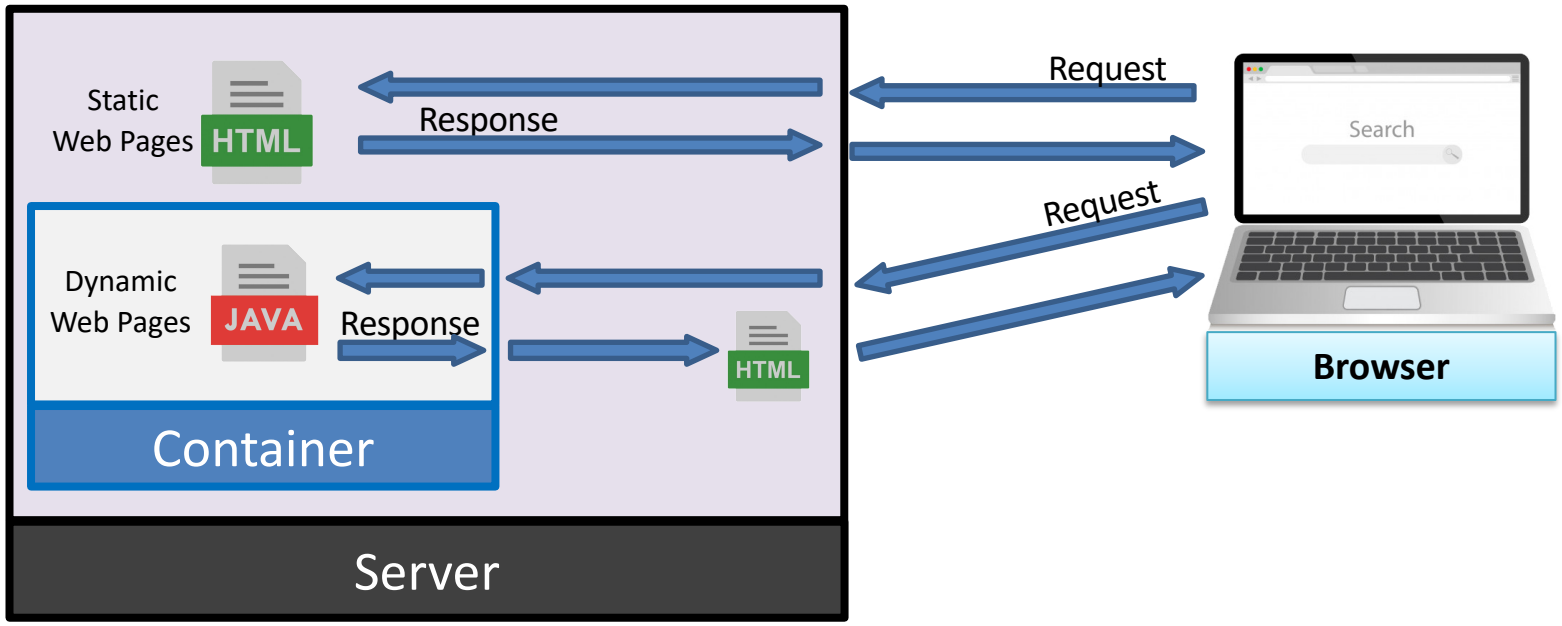
Dynamic Web Page

- A web page that gives dynamic output, that is generated on-the-fly is called **Dynamic Web Page**.
- **Dynamic web pages** are written in languages such as Servlet, JSP, ASP, PHP etc.
- Whenever server receives a request regarding a dynamic web page, server process the dynamic web page and generate html output from that page and then sends it to the client.



Server and Container

- **Server** is software that serve web application. Server contains container.
- **Container** provides runtime environment for dynamic pages . It performs many operations like Life Cycle Management, Multithreaded support, Security etc.



Java Servers: Apache Tomcat Server, Glassfish Server, WebLogic Server etc.

Tools Required

incapp

JDK

Server

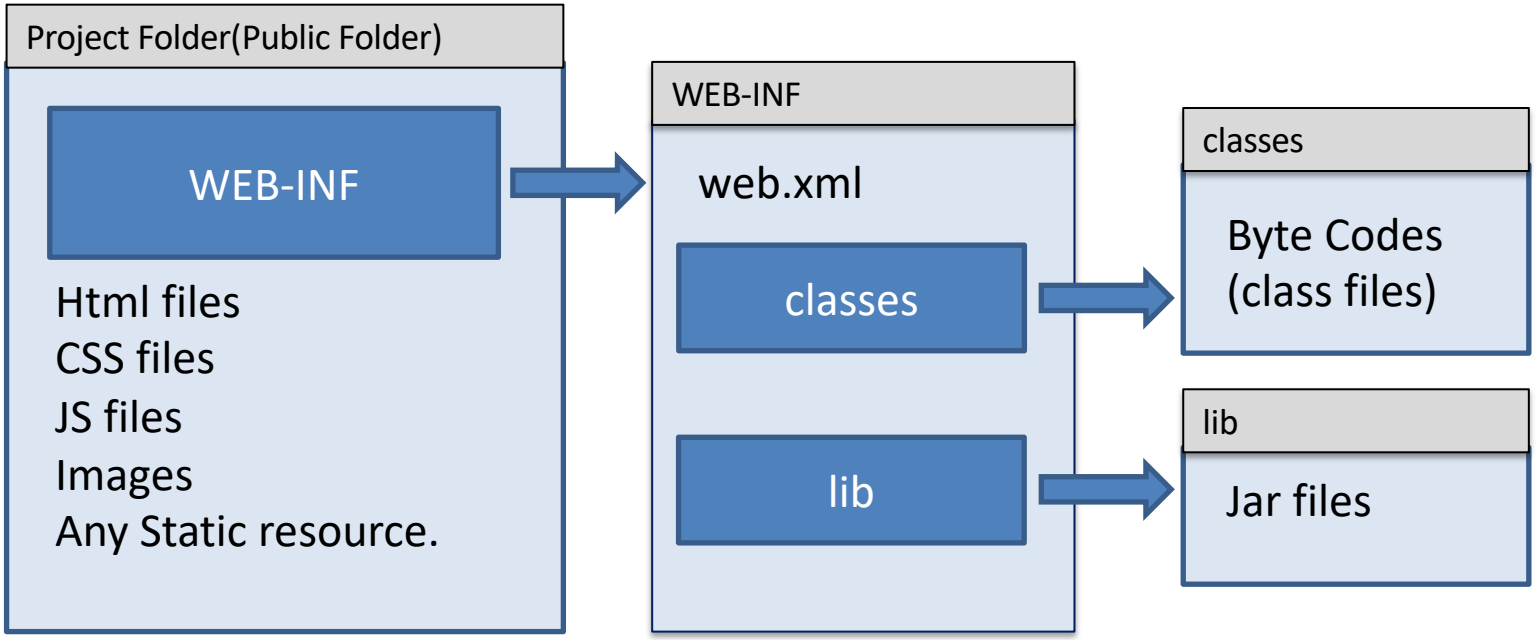
GlassFish

Text Editor

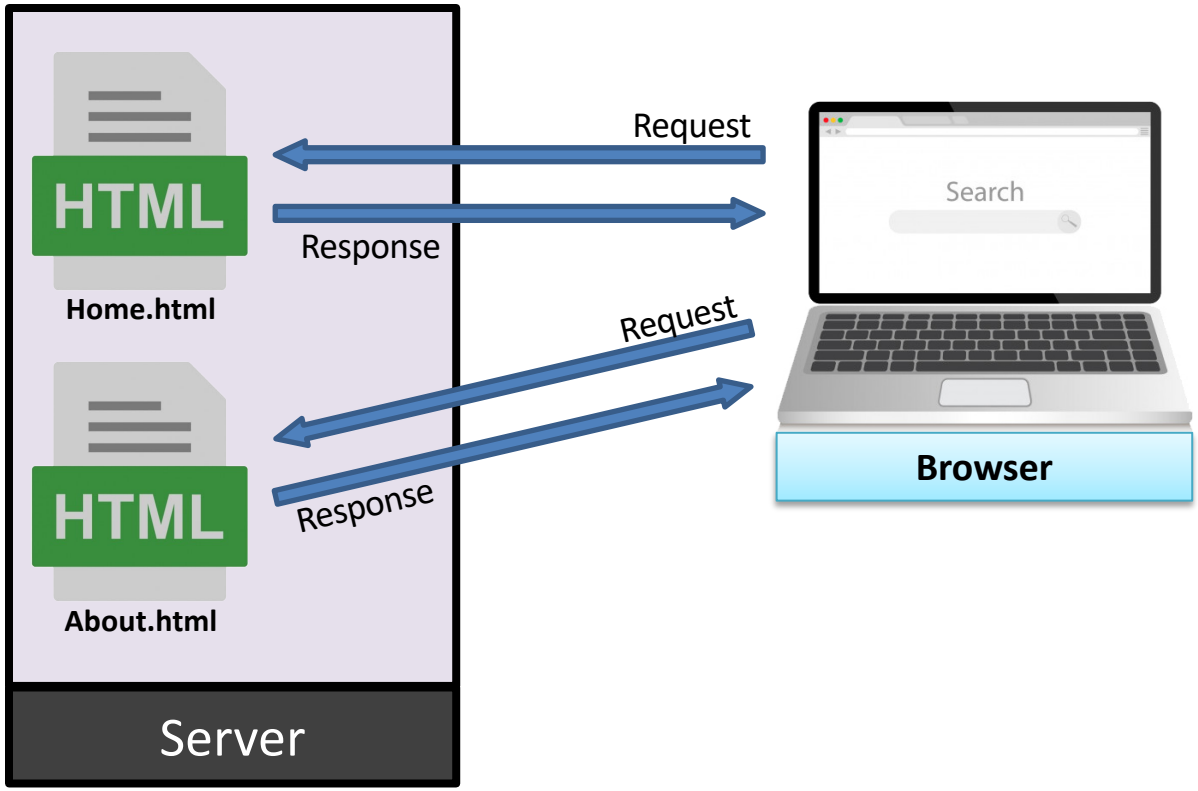
Visual Studio Code

IDE

Directory Structure



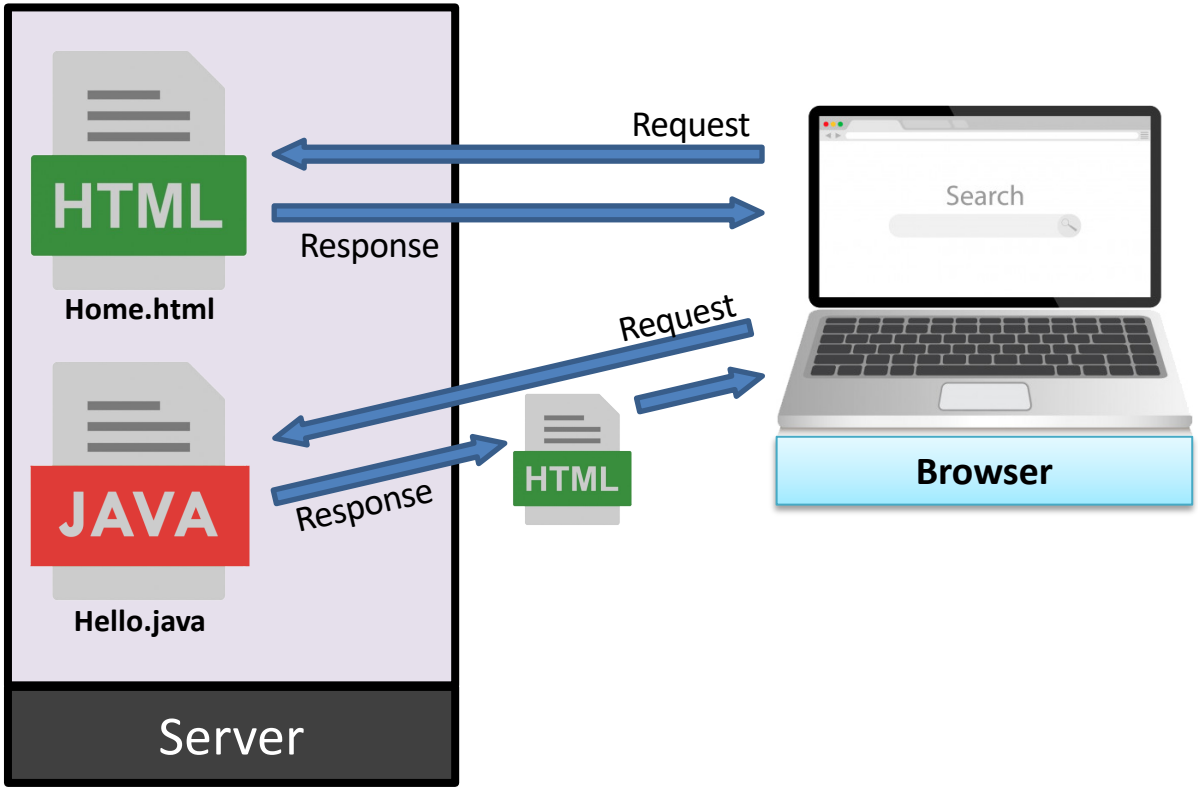
Creating First Web Application



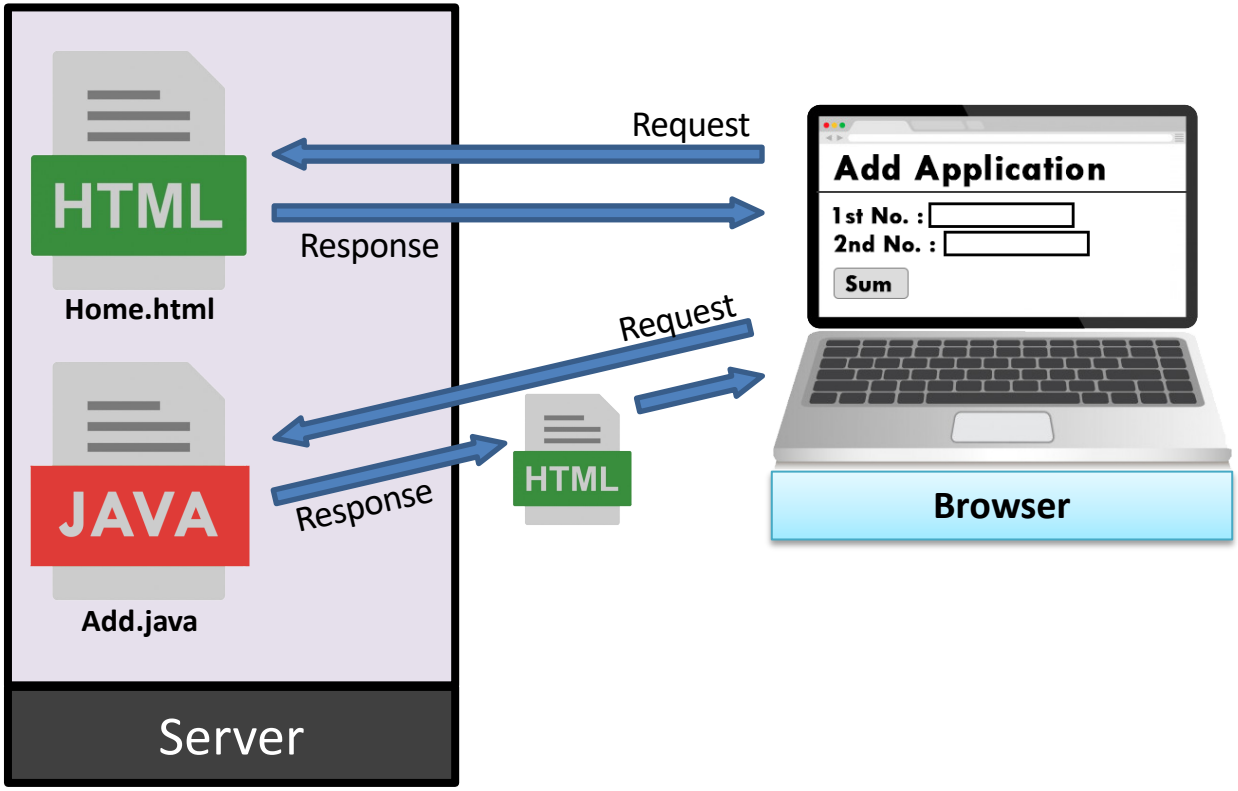
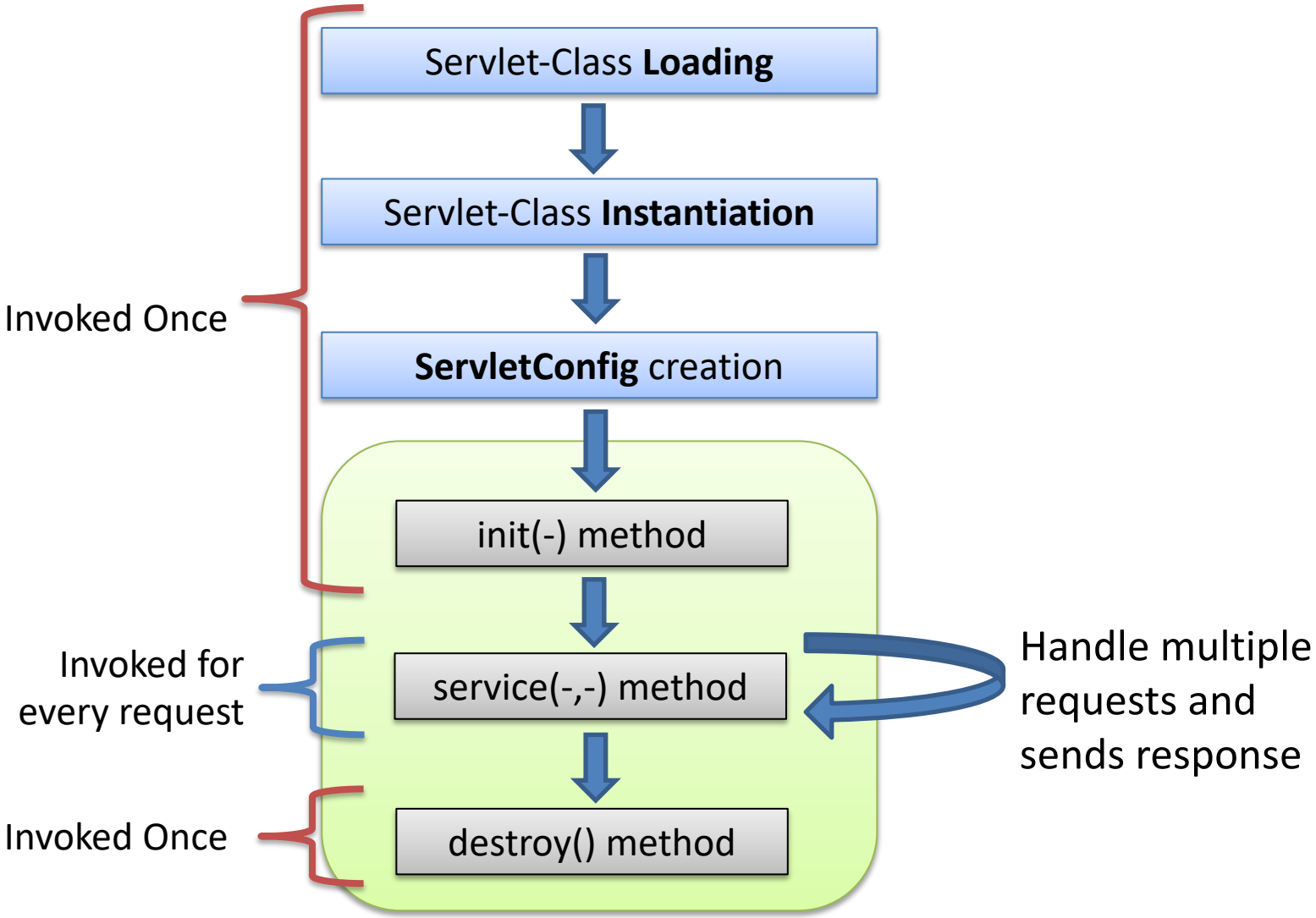
Servlet

- **Jakarta Servlet** (formerly Java Servlet) is a java component used to develop the dynamic web pages on server.
- First publicly available in 1996.

Servlet based Web Application



Add Application



Servlet Lifecycle