

Java EE: Programming Servlets

Introduction



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Java EE: Programming Servlets

- Introduction
- Building and Deploying your First Servlets
- Working with Form and Query String Data
- Handling HTTP Requests and Responses
- Intercepting HTTP Requests with Filters
- Handling Exceptions in Servlets
- Tracking Session Data
- Receiving and Processing File Uploads
- Packaging Servlets for Deployments
- Debugging Servlets
- Globalizing Servlets
- Providing Servlets Metadata using Annotations
- Understanding Asynchronous Servlet Processing

Prerequisite

Core Java Fundamentals

JDBC

HTML

Module Overview



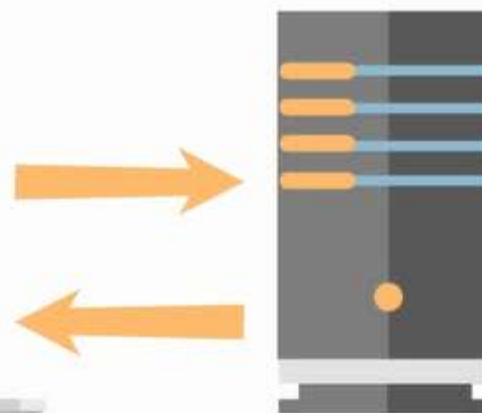
How Web Technology and CGI works?

What is Servlets?

Architecture Of Servlets

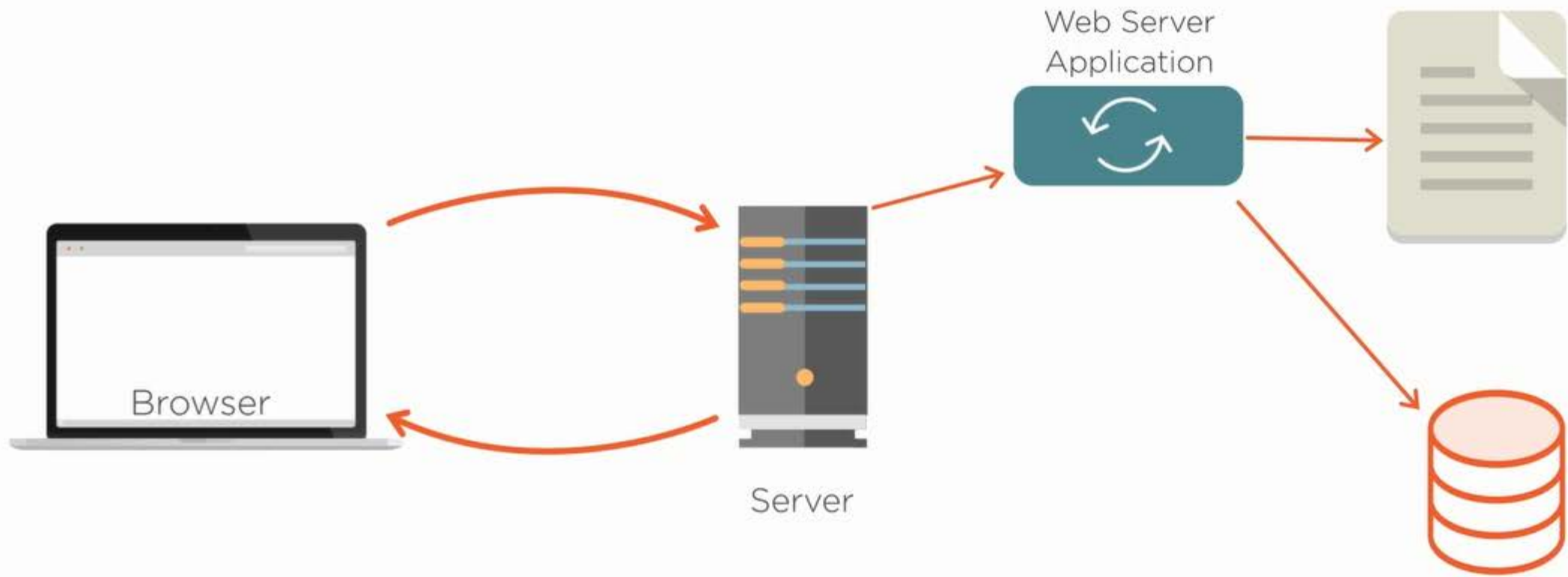
Servlets Life Cycle

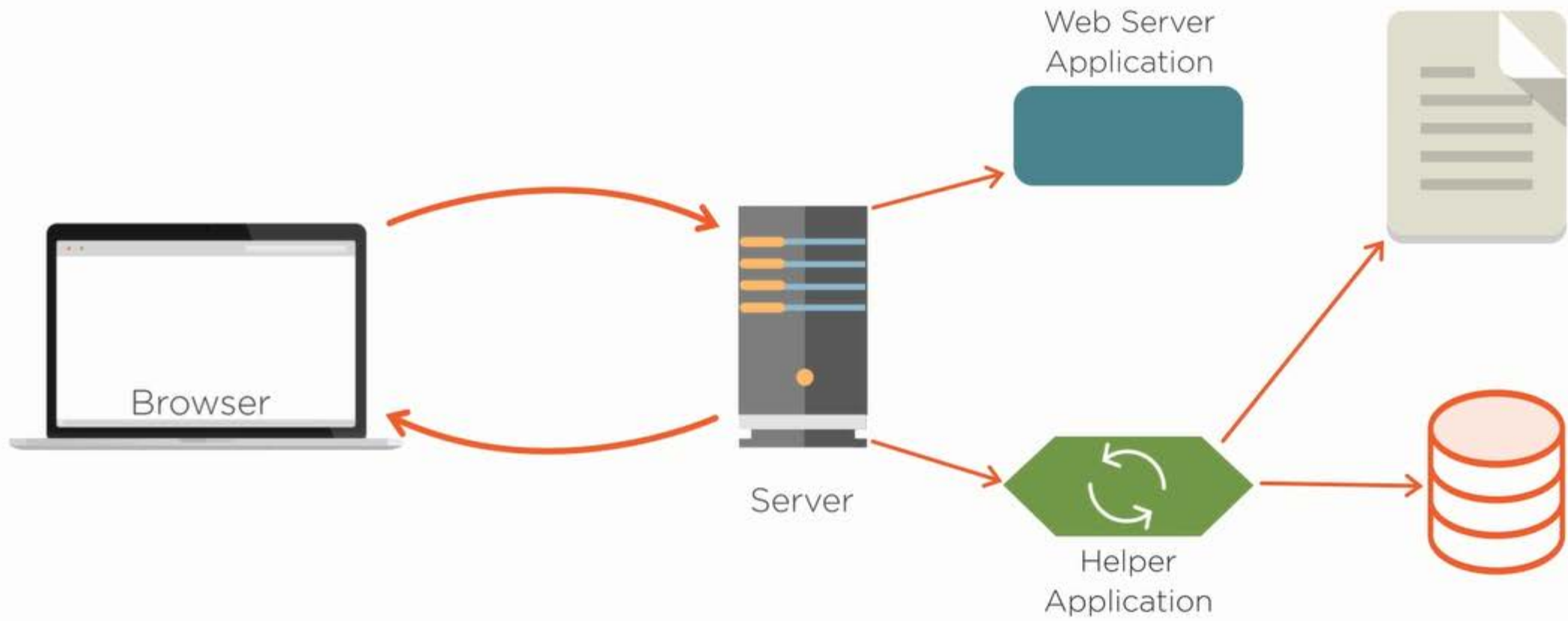
Setting up Tomcat Web Server

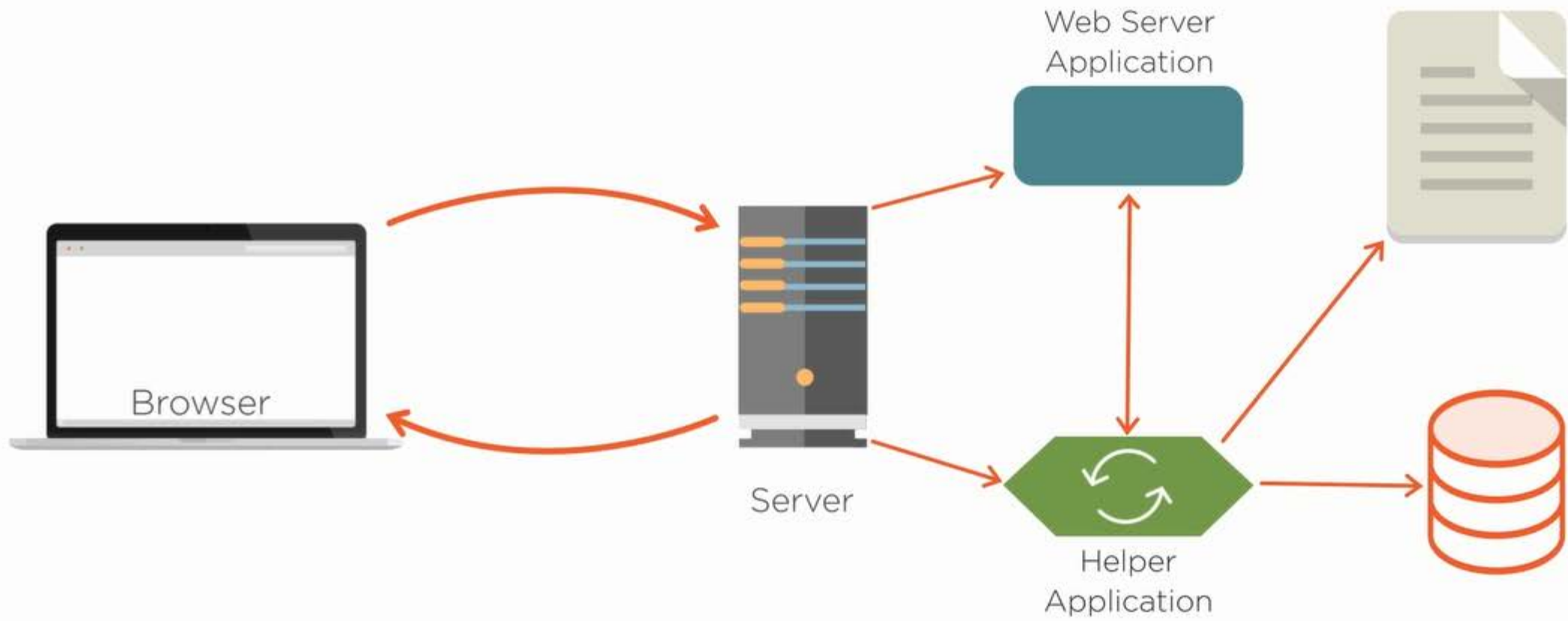


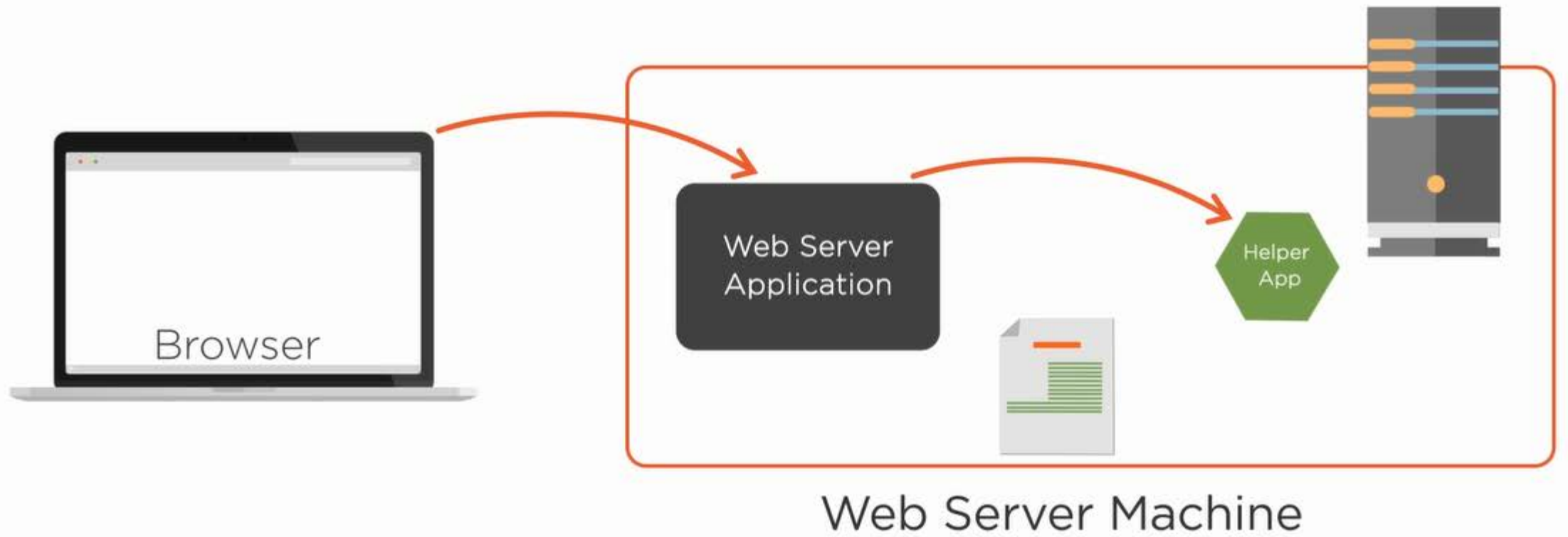


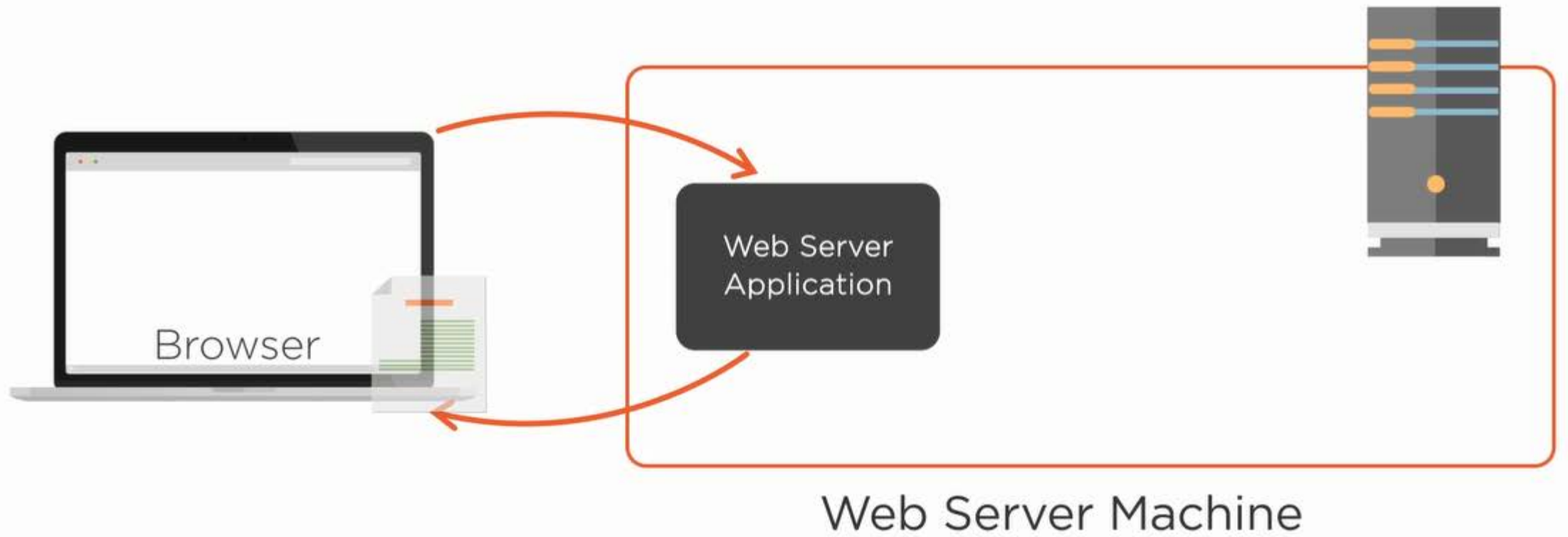


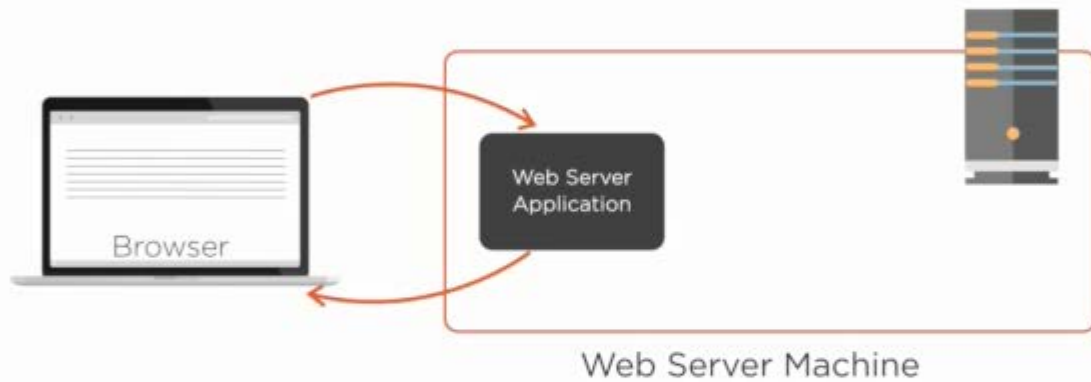












Limitations

- Performance will be slow
- New Database connection must be established for every request

Solution

- Java Servlets

Architecture of Servlets

What is Servlet?

Servlet is a Java programming language class that is used to extend the capabilities of servers that host applications accessed by means of a request-response programming model.

Advantages of Servlets



Performance

Performance is significantly better



Platform Independent

Servlets are Platform Independent



Trusted

Servlets are trusted



Library

Full functionality of the Java class library is available



Instantiate the Servlet

Get the Request and the Response

Mange

- Life

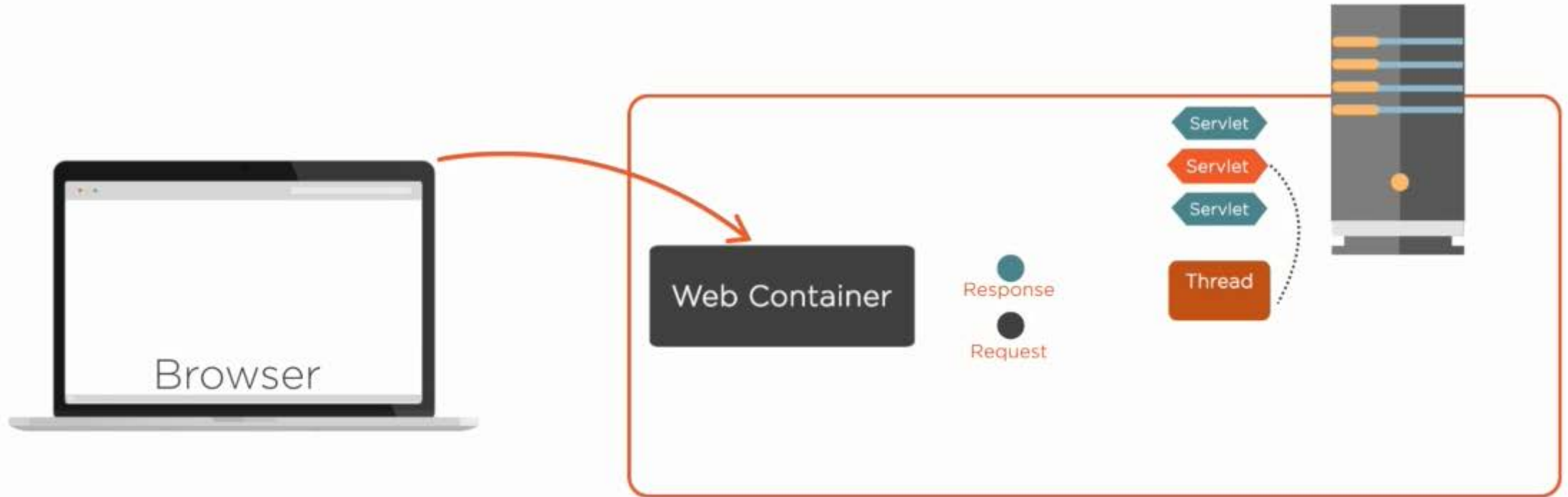
- Death

- Resources of the Servlet

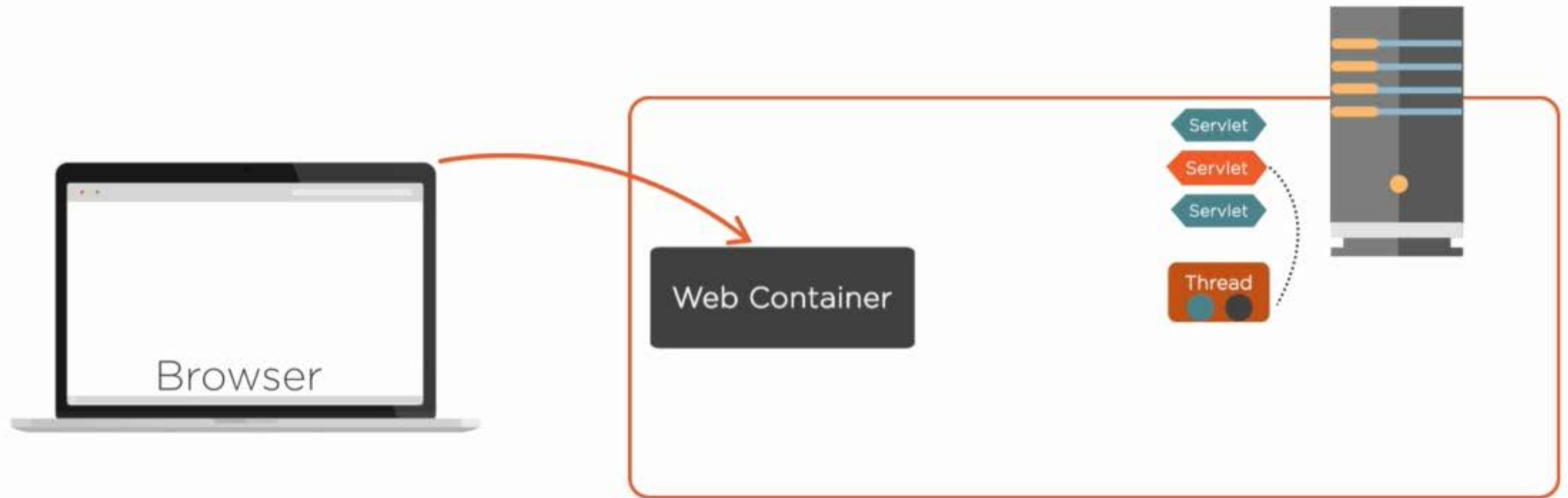
Supported Web Containers

Tomcat, Jetty, JWS and Resin

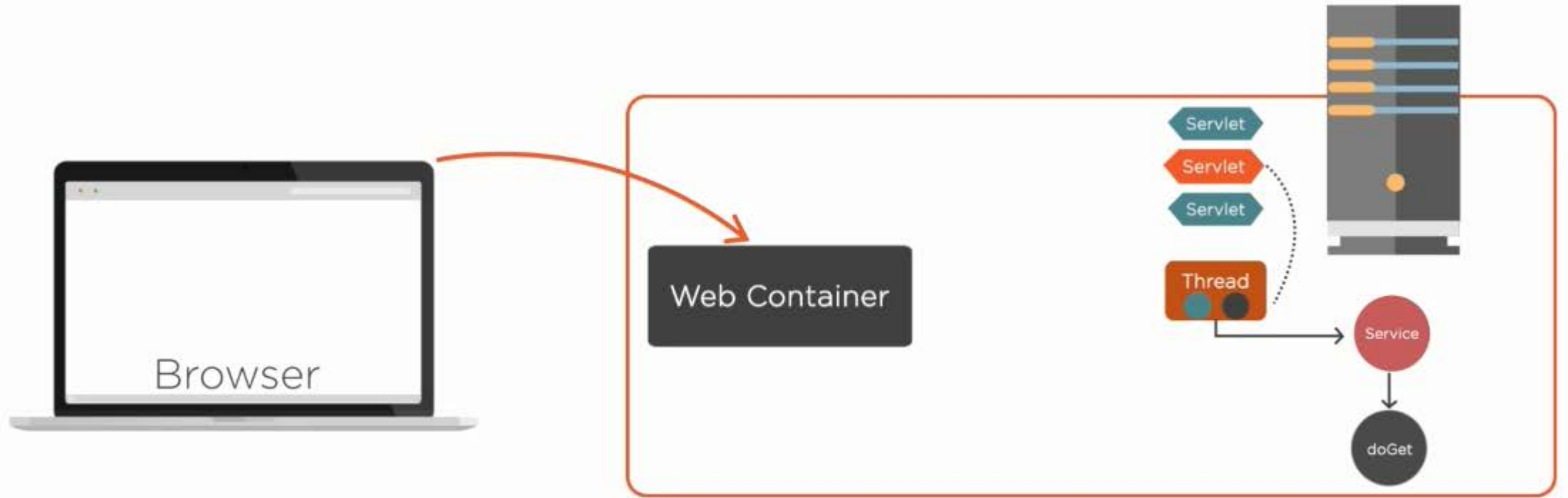
Architecture of Servlets



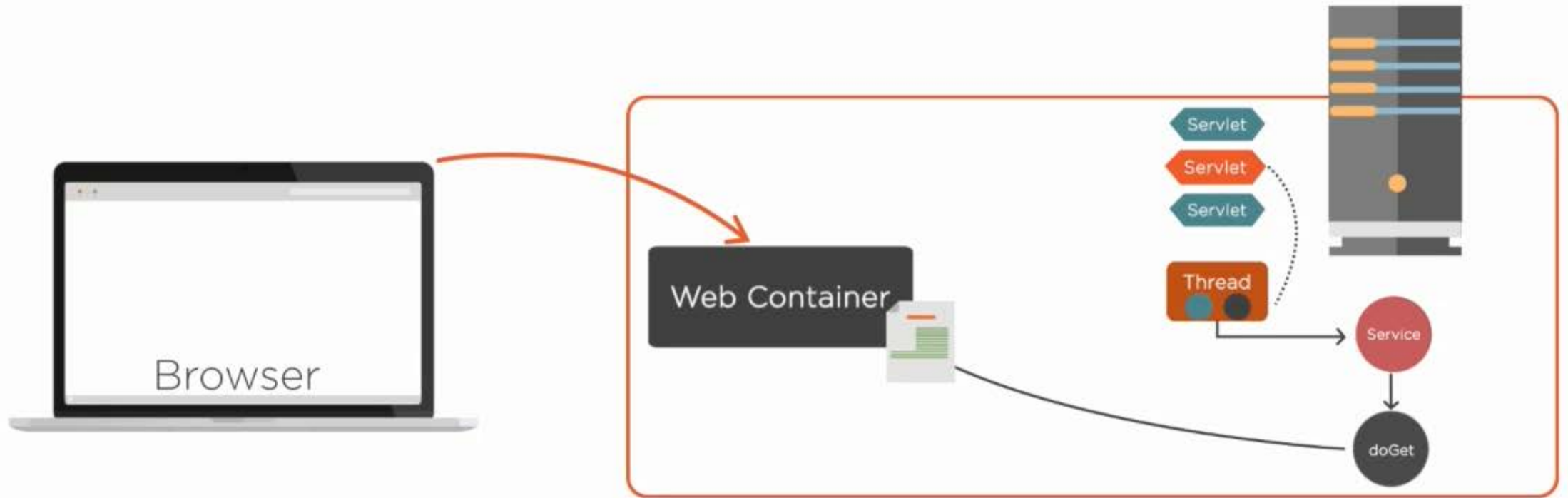
Architecture of Servlets



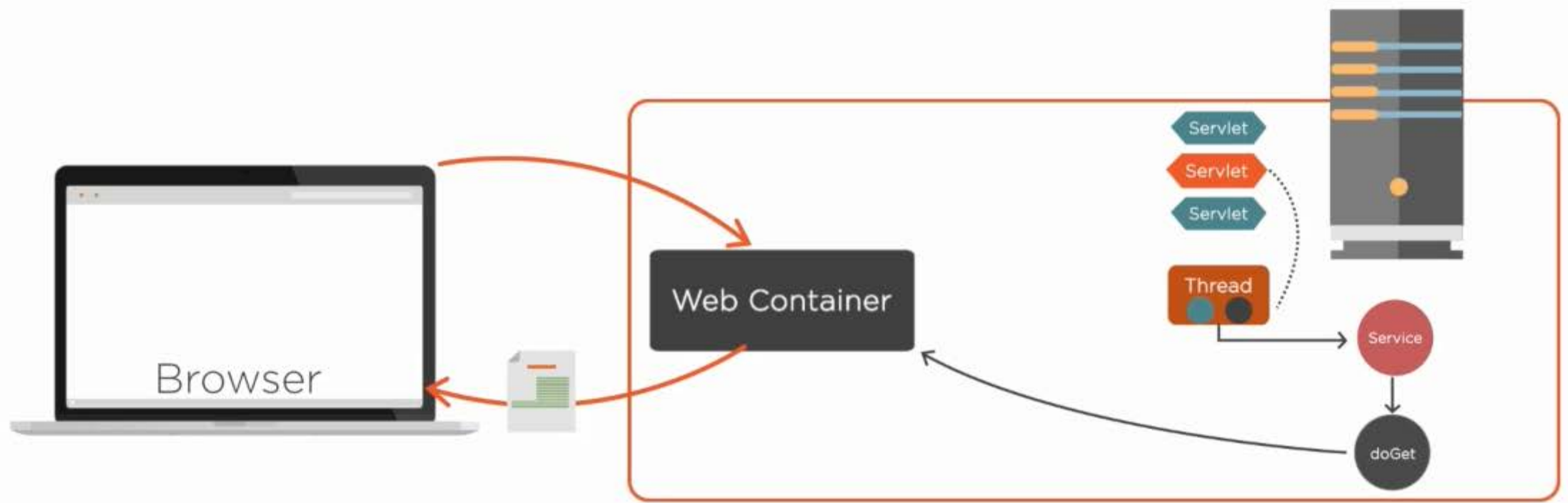
Architecture of Servlets



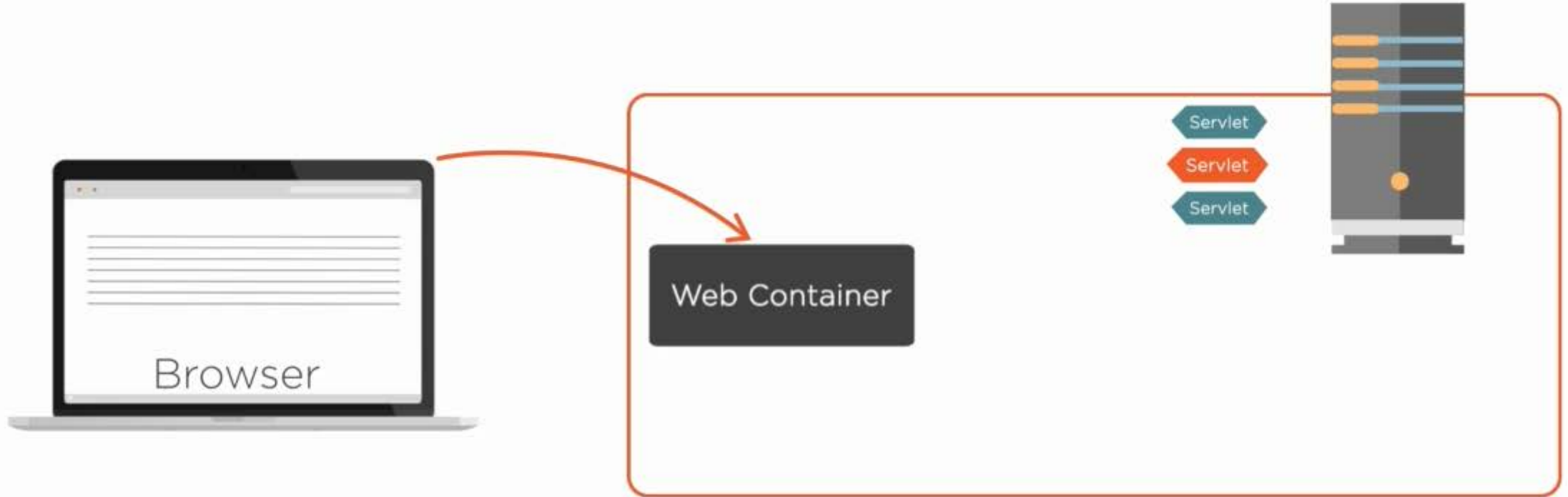
Architecture of Servlets



Architecture of Servlets



Architecture of Servlets



Servlets Life Cycle

Servlets Class Hierarchy

Servlet (Interface)

- destroy
- getServletConfig
- getServletInfo
- init
- Service

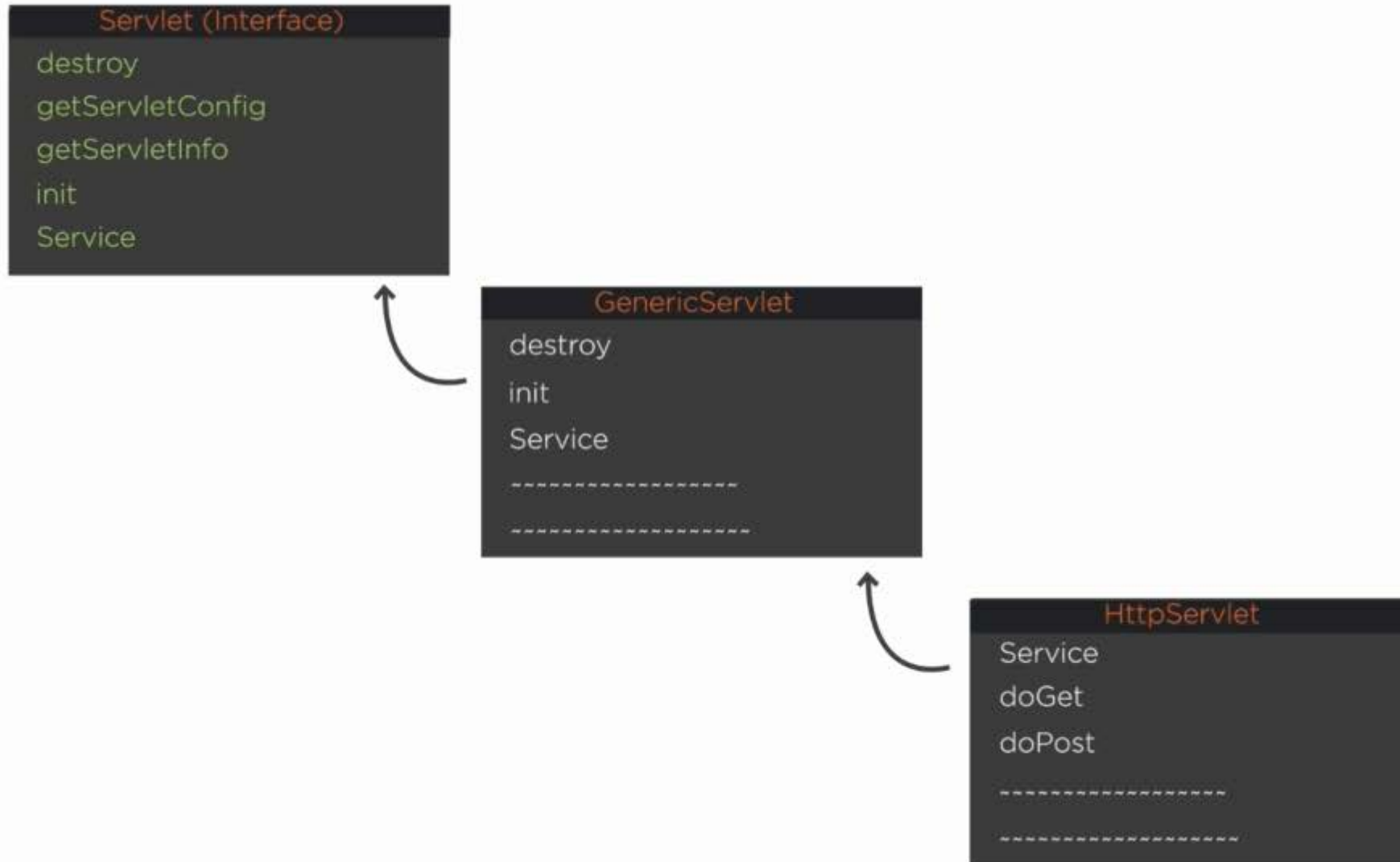
GenericServlet

- destroy
- init
- Service
- ~~~~~
- ~~~~~

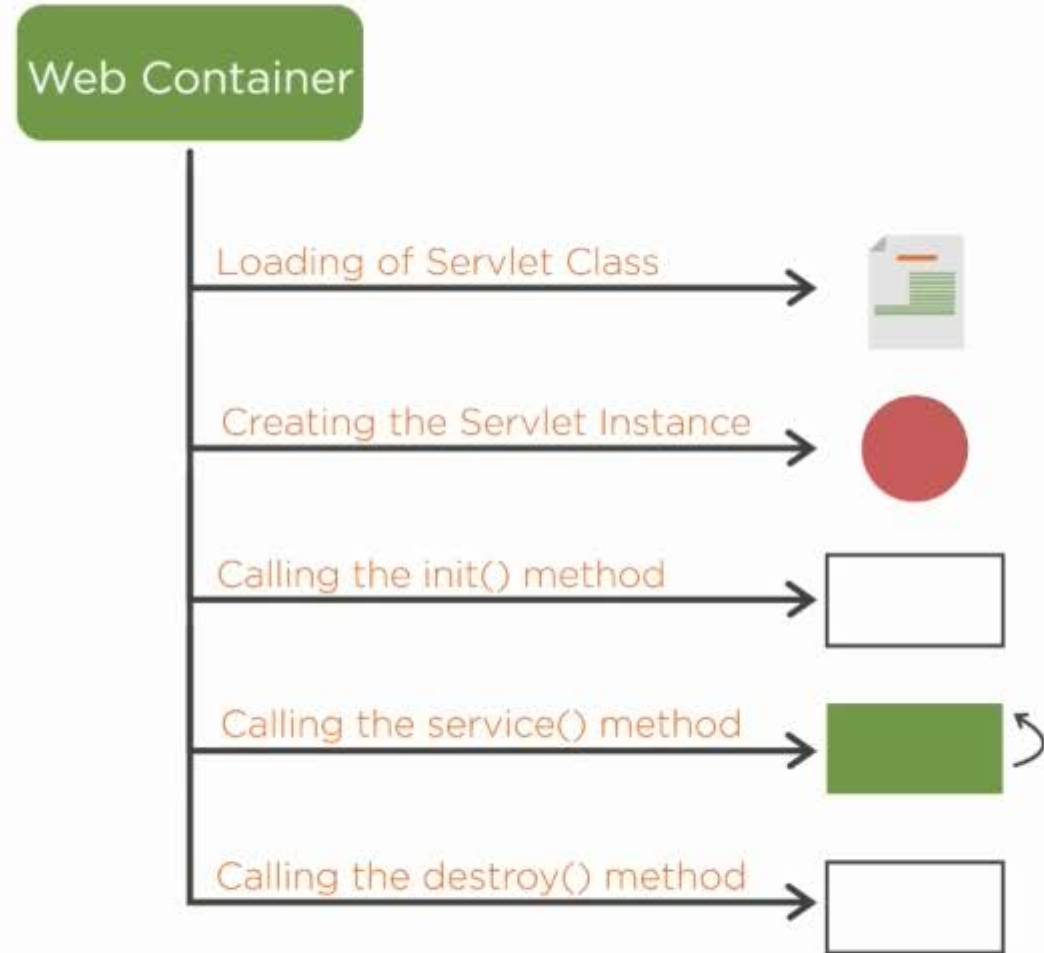
HttpServlet

- Service
- doGet
- doPost
- ~~~~~
- ~~~~~

Servlets Class Hierarchy



Servlets Life Cycle



Setting Up Tomcat Web Server

Summary



Architecture Of Servlets

Servlets Life Cycle

Setting Up Tomcat Web Server