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**1. What is the difference between a web server and a web container?**

Answer : Web server is a computer designed to handle request and send data to other(clients) computers over a local network or the internet.

Web container/ servlet container/ servlet engine is the component of the web server that interact with java servlets and it's responsible for managing the life cycle of servlets, mapping a URL to a particular servlet and ensuring that the URL request has the correct access rights.

**2. What is a servlet?**

A Servlet is a Java class that extends the capabilities of servers that host applications access by means of a request-response programming model.

A servlet is server-side java code that can handle http requests and return dynamic content

**3. How do web servers and web containers interact with servlets?**

When a client sends an Http request to a web server, the web server also transfer the Http request to a web container, and the web container change the Http request to an object request and object response and passes that to a Servlet, the servlet then handles all the request and pass the object response to the web container and the web container then convert the response object in to Http response and sent to web server.

**4. Who creates request objects?**

The web container is always responsible to create the request object.

**5. What are the states in the servlet lifecycle?**

- Servlet class is loaded.
- Servlet instance is created.
- Init() method is invoked.
- service method is invoked.
- destroy method is invoked.

**6. Who calls init and when?**

Whenever the servlet is loaded and first request comes to the servlet, the init() method will get called

The init() method is called only once in the life time of the servlet.

**7. Which of init, service, and doGet should you override?**

we override only the doGet() method.

**8. In what sense are servlets multi-threaded?**

When web server sends a request to the servlet engine/ container a new thread is provided, due to this we say servlets are multi-threaded.

**9. What are the implications of this for servlet instance variables?**

This means instance variables are sheered between different threads and local variables have their own stack frame.