Assignment 1

JAVA BEANS

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1. How J2EE differ from EJBs. (Max 5-10 lines)

**J2EE (Java 2** Enterprise Edition) is a platform-independent environment that consists of core **Java** with a powerful set of libraries that can be used to develop, build and deploy Web-based enterprise applications online. It comes with a set of services, API and protocols that provide fucntionality for developing multitiered enterprise.  
**Enterprise Java Beans Technology** is part or is a layer of the **J2EE’s** larger Framework where the platform’s logic is stored. It is a server-side component that encapsulates the business logic of an application and it provides functions like threading, concurrency, security and memory management.

## 2. Difference between Web Server and Application Server. (Max 5-10 lines)

A web server’s main purpose is to accept and fulfill requests for static content of a website like HTML pages, CSS, images and videos and responds back to the client(browser, mobile application) in the form of HTTP response. An Application server on the other hand provides the client with access to business logic that generates dynamic content by executing server side code like JSP, Servlet or EJB. They have components and features to support Application level services such as Connection Pooling, Transaction support, Object Pooling and Messaging services.  
A web server can serve a limited number of concurrent client connections and only a certain maximum number of requests per second while an application server can serve a much higher capacity.

## 3. What is serialization in JAVA? (Max 5-10 lines)

Serialization in Java means converting a Java Object into static stream of bytes that can be transferred over a network or saved into a database for later usage. The byte stream created is platform independent and so an object can be serialized on one platform and then deserialized 0n a different platform. The advantages of serialization are to save/persist the state of the object and to travel the object across a network. Serialization of a Java object is done by implementing the java.io.Serializable interface.

## 4. Difference between GET and POST request. (Max 5-10 lines)

Get and Post Requests are two HTTP methods of data transfer where Get method is getting information from the server and Post is getting information to the server. In Get Request, data is embedded in the URL parameters and sent to the web server for read only operations whereas in Post Request, data sent to the server is not visible in the URL but instead it is sent as a package in a separate communication with processing script for update and write operation. Hence Get Http method is less secure than Post Http method that provides high security of data transferred. Get request can only send limited text and character type of data while Post request can send any type of data with no limits. Caching is also possible with the Get Request while it is not possible through Post Method.

References:

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4. <https://www.journaldev.com/2452/serialization-in-java>

5. https://www.geeksforgeeks.org/serialization-in-java/