Build COMPETENCY
across your TEAM

SYNERGETICS
GET IT RIGHT

Microsoft Partner
Gold Cloud Platform
Silver Learning

Introduction To Java Enterprise Edition

Google Cloud Platform

Windows Azure

amazon web services

APACHE kafka
A distributed streaming platform

Apache Software Foundation

APACHE Spark

Java

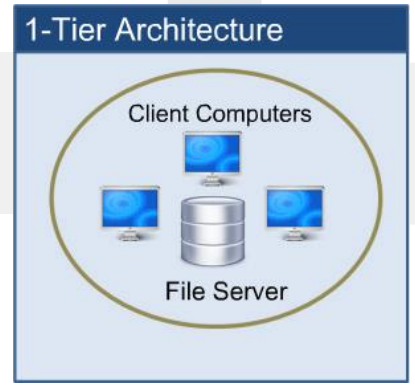
hadoop

Introduction to JEE

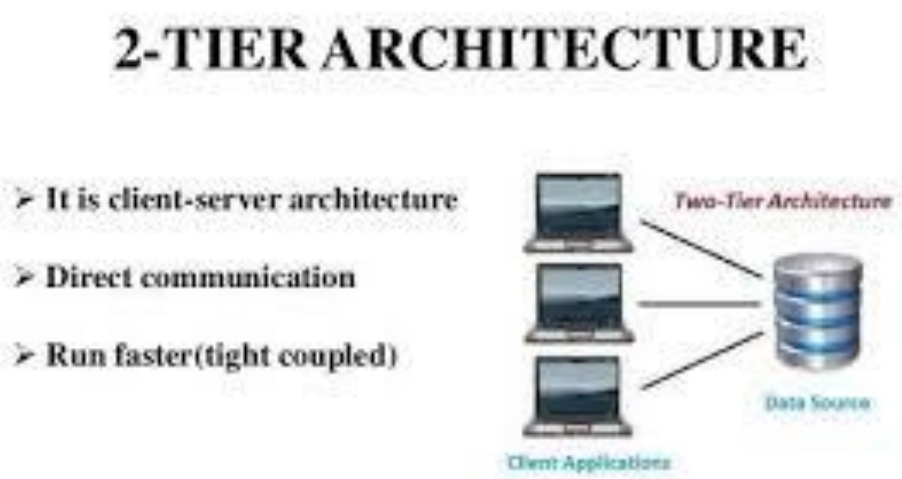
- The 1/M tier architecture
- Flavors of Java Framework
- Introduction to Java Enterprise Edition.
- Client Server Technology and Solutions
- Static and Dynamic Web Pages
- JEE for Dynamic Web Page Design
- Types of Servers and Containers

Multi-tier Architecture

- The 1-tier architecture:
  - All required components of Java runs in same JVM. All required components like JVM, Data Base run in same machine.
  - Even client also runs in same machine.
  - Severely limited in Scaling.

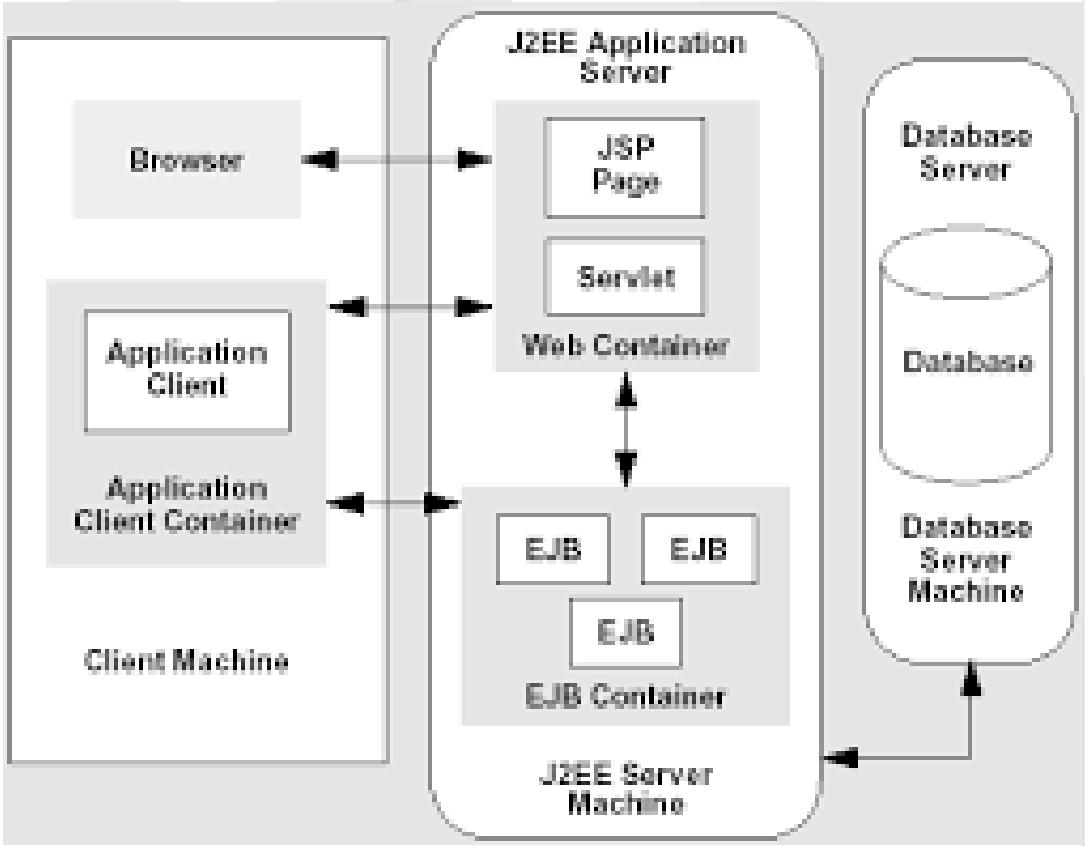


- The 2-tier architecture:
  - All required components of Java runs in same JVM. All required components like JVM, Data Base run in same machine.
  - Load is processed within server.
  - Client remotely access server side.
  - Better in scaling than 1-tier architecture.



Multi-tier Architecture

- Highly Scalable.
- Distributed in nature
- Each layer is independently designed and managed from other layers
- Segregation of Responsibilities.



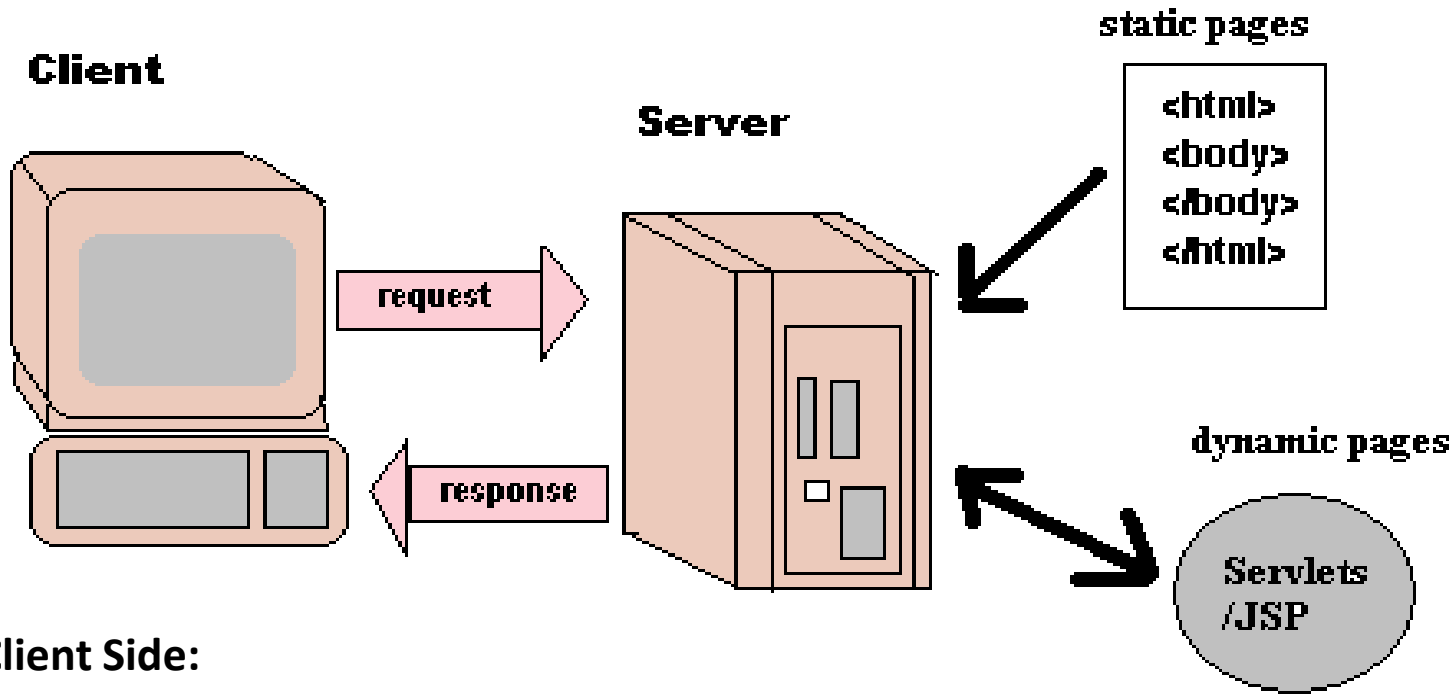
Flavours of Java Platform

- Java Standard Edition (JSE)
- Java Enterprise Edition (JEE)
- Java Micro Edition (JME)

Java Enterprise Edition

1. **Java Database Connectivity (JDBC)**
2. **Servlet**
3. **JSP**
4. Remote Method Interface (RMI)
5. Enterprise Java Beans (EJB)
6. **Java Naming and Directory Interface (JNDI)**
7. **Java Transaction API and Services (JTA, JTS)**
8. Java Parsing and Binding API (JAXP, JAXB)
9. Java Connector Architecture (JCA)
10. **Java Authentication and Authorization Services (JAAS)**
11. Java Messaging Services (JMS)
12. Java Mailing Services

Client Server Technology and Solutions



Client Side:

HTML, Java Script, Jquery
Angular JS, BootStrap JS etc.

Server Side:

Core Java, EJB, Servlet JSP,
NodeJS, JDBC, RMI etc.

Static and Dynamic Web Pages

- Role of a Server
- HTML: Completely Static web paging.
- Dynamic Web Pages:
  - Server side- JSP
  - Client Side- JavaScript, based libraries and frameworks.

Dynamic Web Pages

Dynamic Web Page design needs

- Data on web page depends on the client request
  - Ex : Search engines
- Data on web pages changes frequently
  - Ex : Weather reports
- Data on web pages uses data from corporate databases
  - Ex : Stock indexes

- .

HTTP, Web and Application Servers

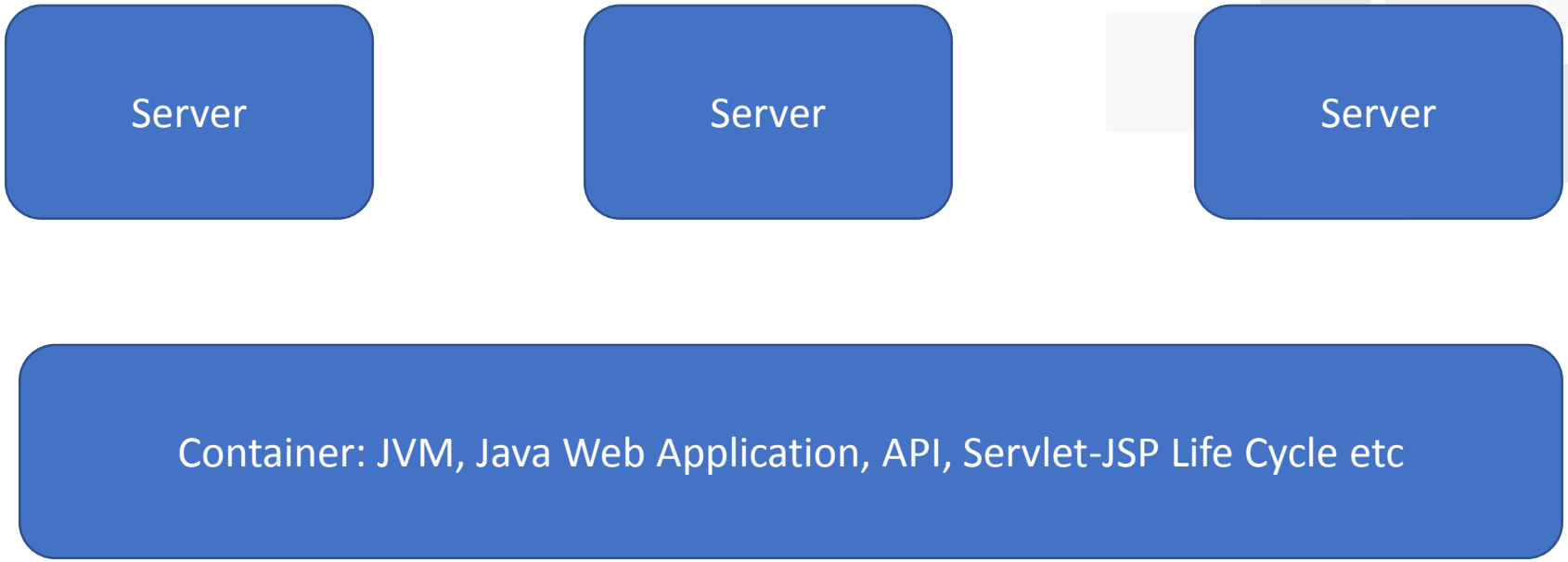
HTTP Server
Keeps HTTP static pages live.

Web Server
Dynamically design web pages.

Appl Server
Complete Enterprise Solution

- Web Servers: Java Web Server, Tomcat
- Application Servers: Jboss/WildFly(RedHat), Oracle AS, WebLogic(BEA/Ora), WebSphere(IBM) etc.

Server Container



Servlet Context
JSP Context

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Q & A

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Thank You