1. Read [Your First Cup: An Introduction to the Java EE Platform](https://docs.oracle.com/javaee/7/firstcup/index.html) — Focus on Chapter 2, “Understanding Java Platform, Enterprise Edition”
   1. Explain the tiers discussed in the article. On which does J2EE focus? On which to the Oracle database focus?

Client tier: application clients that access Jave EE server

Web tier: handles interactions between client tier and business tier

Business tier: provides the business logic of the application

The Enterprise Information System Tier: Located in a separate machine from Java EE server, consist of database servers and enterprise planning systems.

Java EE applications concentrate on the middle (web tier and business tier) tier.

* 1. Explain the nature of a J2EE container. What sort of containers are there?

The J2EE container is the interface between a component and lower-level functionality.

Types of containers: web container – interface between web component and web server, EJB container – interface between enterprise beans providing business logic and Java EE Server, and application client container is interface between Java EE Client and Java EE Server.

1. Read [The Java EE Tutorial](https://docs.oracle.com/javaee/7/tutorial/index.html) — This tutorial provides extensive material on J2EE; focus on the sections listed here.
   1. Sections 1.7–1.8, “Java EE 7 APIs” — Explain the purpose of these technologies (only): JPA, JTA, JAX-RS\*, JDBC, JAXB.

JPA: solution for persistence that uses an object/relational mapping approach to bridge the gap between an object-oriented model and a relational database.

JTA: provides auto commit to handle transaction commits & rollbacks and demarcation of the entire transaction if transactions depend on each other.

JAX-RS: defines APIs for development of web services built according to REST architectural style

JDBC: allows you to invoke SQL commands from java programming languages

JAXB: convenient way to bind XML schema to a representation in java

* 1. Section 5, “Packaging Applications” — Compare and contrast JARs, WARs & EARs.

EAR contains java EE modules and optionally deployment descriptors.

JAR application client modules which contain class files (and optionally a deployment descriptor)

WAR web modules which contain servlet class files. Are JAR files but with a WAR extension.

1. Review these tutorials, on which the lab is based: [Developing a Java EE Application](https://www.jetbrains.com/help/idea/2016.3/developing-a-java-ee-application.html) & [Creating and Running Your First RESTful Web Service](https://www.jetbrains.com/help/idea/2016.3/creating-and-running-your-first-restful-web-service-on-glassfish-application-server.html).
   1. Identify the IDE we’ll use for J2EE development.

IntelliJ – it is a Java IDE

* 1. Identify the roles of the following technologies in the J2EE application: J2SE’s JDK; GlassFish.

GlassFish: the application server

JDK: used as the project SDK (the software development kit). Thus, JDK is a software development kit used to develop java applications. It includes a runtime environment, interpreter, compiler etc.

J2SE:

* 1. Explain the nature of a RESTful webservice.\*