IN5020 - Distributed Systems Group Session

Topic 7 – Component Based and Web Based Distributed Systems

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Question 1 -

What are the Issues with Object Oriented Middleware ?

Issues with Object oriented middleware

- Implicit Dependencies
  - The behaviour of the objects are hidden from the clients (for example, if the remote method is depending on some other function call, then it is possible that it could introduce a delay)

- Interaction with low level
  - Clients have to connect with the middleware for discovery services

- Lack of separation of distributed concerns
  - Programmers have to deal with different aspects such as replication, security, etc

- No Support for deployment

Question 2 -

What is a container and why do we need it ?

Container

- Container holds one or more components
- The components deal with the application logic

Why container?

- Container helps with non-functional properties by handling the distributed systems aspects
  - Such as communication with the middleware and other services
  - Example: Enterprise Java Beans (EJB) containers – beans are deployed to containers. Containers take care security, etc.

Question 3 -

What is the difference between URL and URN?

URL and URN

URL:

- Uniform Resource Locator
- It is a type of resource identifier (URI)
- It includes the location of the resource it identifies
- Eg:- http://www.university.com/student?id="1"

URN:

- Uniform Resource Name
- It is also a type of resource identifier (URI)
- Location Independent
- They rely on external lookup services such as directories to locate the resource

Thank You