Practical no: 8

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Aim: 1. Deployment diagram for Online Shopping.
2. Deployment diagram for Library Management System.

Theory: A deployment diagram in software engineering and systems engineering is a type of diagram that illustrates the physical deployment of software components and their connections in a real-world environment. It shows how software components are deployed on hardware nodes, such as servers, and how they communicate with each other. Deployment diagrams are part of the Unified Modeling Language (UML), which is a standardized modeling language commonly used in software development.

Here are the key elements and symbols used in a deployment diagram:

1. Nodes:
   - Nodes represent the hardware devices or computing resources in the system, such as servers, workstations, or devices.
   - Nodes are depicted as boxes and may include details such as the name of the node and its icon.

2. Components:
   - Components represent software modules or units that are deployed on nodes.
   - Components are depicted as rectangles with two compartments: the upper compartment contains the component name, and the lower compartment contains the component type or stereotype.

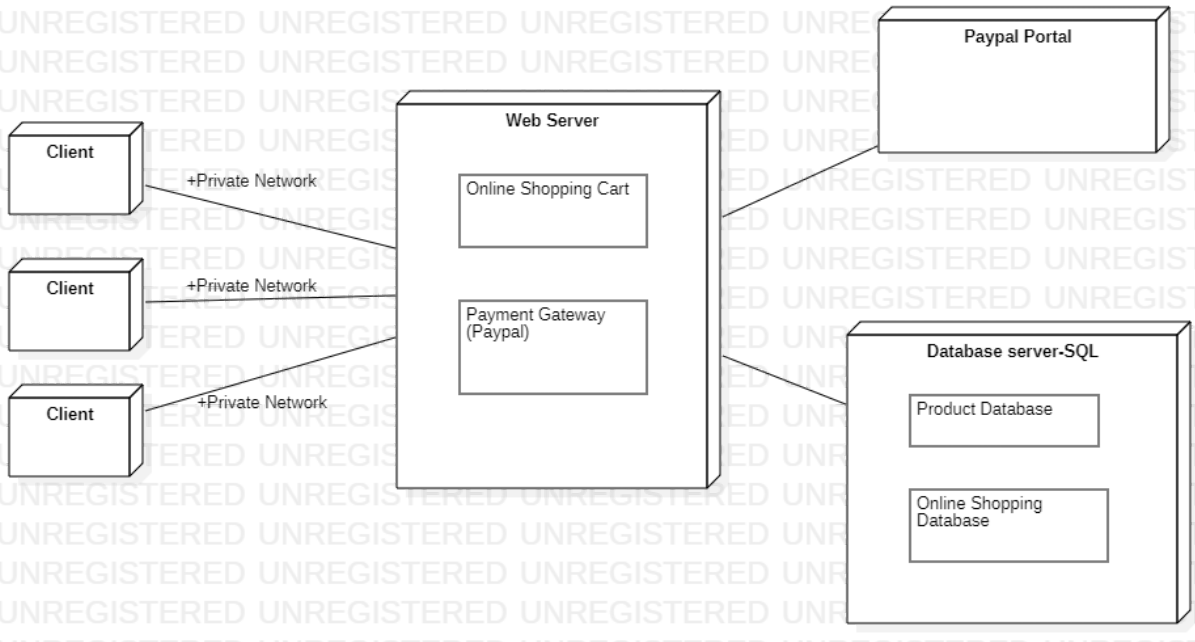
3. Artifacts:
   - Artifacts represent files or data that are used or produced by components. They can be associated with nodes or components.
   - Artifacts are depicted as rectangles with the name of the artifact.

4. Communication Paths:
   - Communication paths represent the connections and communication links between nodes. They indicate how components interact with each other.
   - Communication paths are depicted as lines connecting nodes or components, with optional arrows indicating the direction of communication.

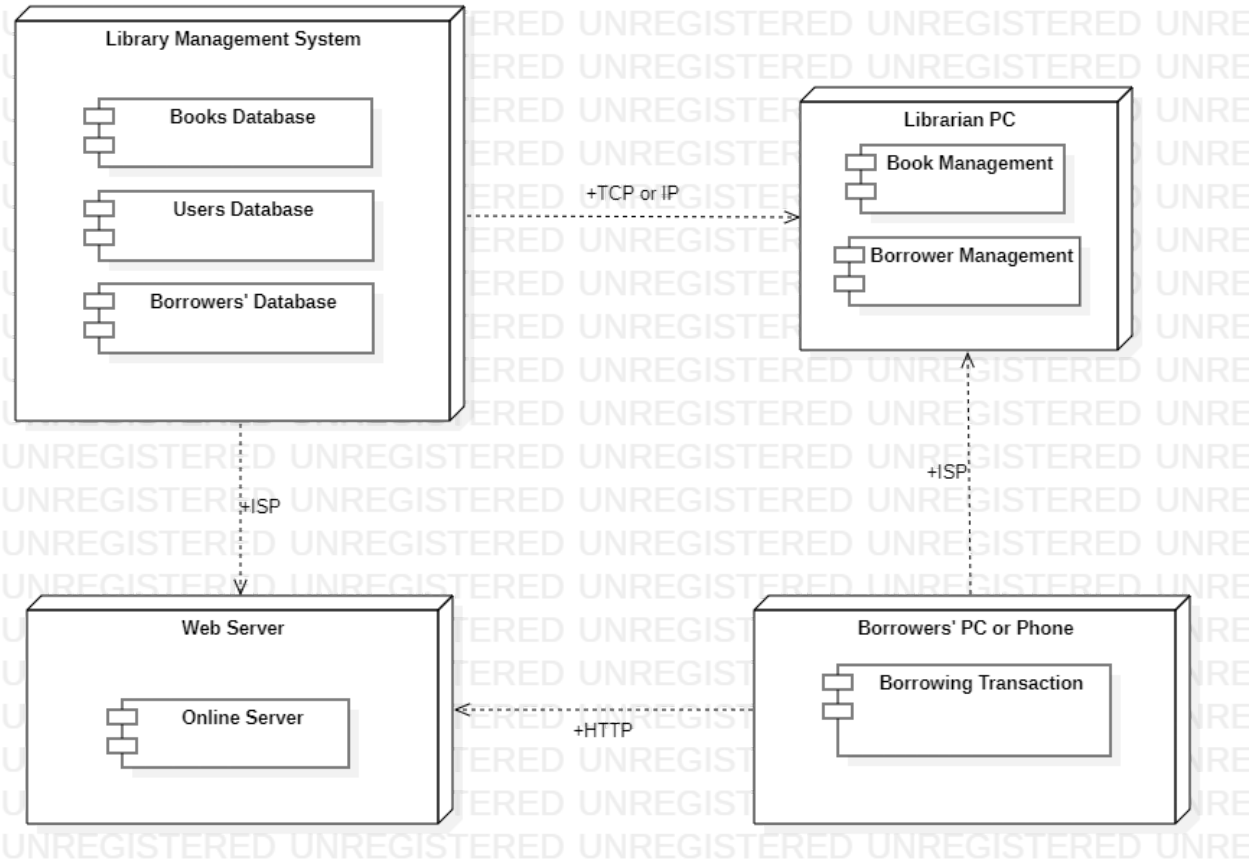
5. Associations:
   - Associations represent relationships between nodes and components.
   - Associations are depicted as dotted lines connecting nodes and components.

6. Dependencies:
   - Dependencies represent the relationships between nodes and components where changes in one may affect the other.
   - Dependencies are depicted as dashed lines connecting nodes and components.

1) Online Shopping



2) Library Management System



Conclusion: We have successfully studied deployment diagrams that are useful for understanding the physical architecture of a system and are often used during the planning and implementation phases of software development.