WEEK – 5

Structural Modeling-Deployment Diagram

5.1 Deployment diagram for Mobile Banking Android Services Design and develop a deployment diagram of a Mobile banking android services which showcase the execution architecture of a system.

This includes both the hardware and the software execution environments and their connecting factors.

To design a Deployment Diagram:

Select first an element where a new Deployment Diagram to be contained as a child.

Select Model | Add Diagram | Deployment Diagram in Menu Bar or select Add Diagram | Deployment

Diagram in Context Menu.

To design a Node:

Select Node in Toolbox.

Drag on the diagram as the size of Node.

To design a Node (model element only) by Menu:

Select an Element where a new Node to be contained

Select Model | Add | Node in Menu Bar or Add | Node in Context Menu.

Name Expression: Edit name expression.

Syntax of Name Expression

expression:: = ['<<' stereotype `&gt;&gt;`] [visibility] name

stereotype:: = (identifier)

visibility ::= '+' | '#' | '-' | '~'

name:: = (identifier)

To design a Deployment:

Select Deployment in Toolbox.

Drag from an element (to be deployed) and drop on a Node.

To design a Communication Path:

Select Communication Path in Toolbox.

Drag from a Node and drop on another Node.

a node represents the client's device, which is an Android system. A component represents the banking

application in the device. The user goes through the web to interact with the banking server and

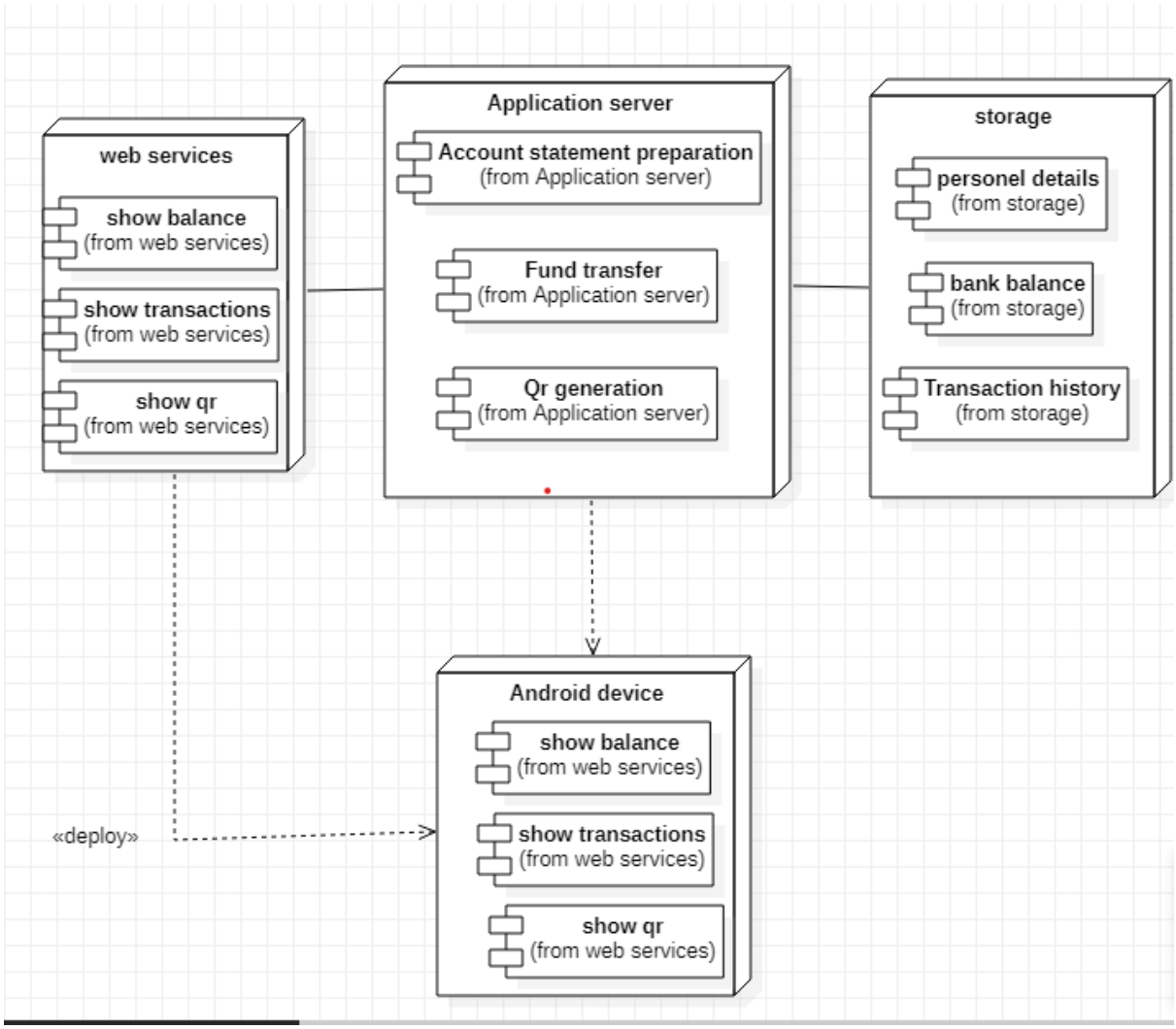
perform the required task.

Nodes are Client device android, web services, Application Server, Data

Storage

Components in the application server are Account statement preparation,

fund transfer, cheque transfer, other services



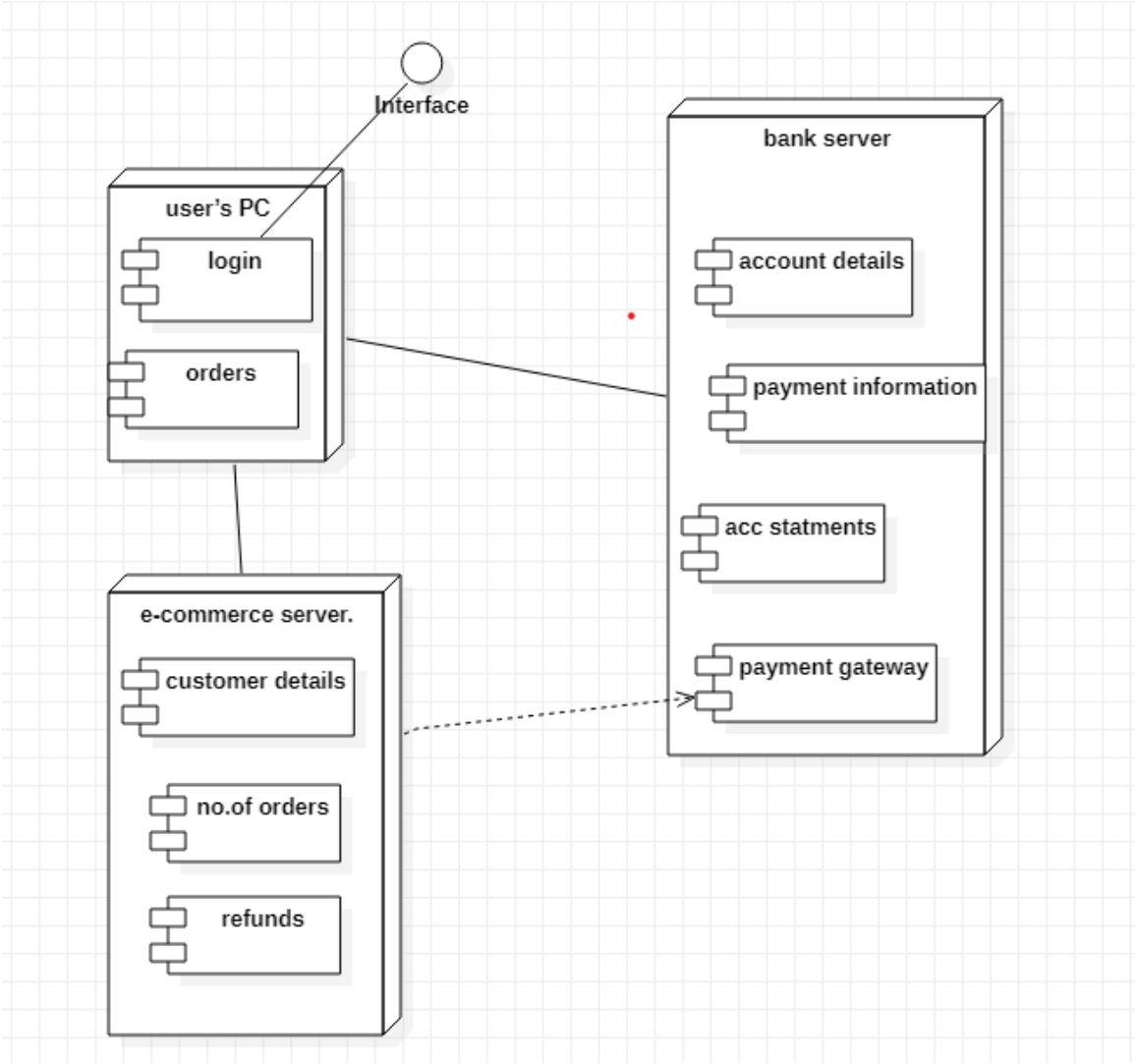
5.2 Deployment diagram for Digital payment solutions

Design and develop a deployment diagram of an Digital payment solution which showcase the execution architecture of a system. This includes both the hardware and the software execution environments and their connecting factors

This diagram will show how an e-commerce platform receives payment from acustomer for a product. There's an

interaction between the user's PC, thee-commerce server, and the bank server to get the payment done. You cansee

three nodes: the user's PC, the bank server, and the e-commerce server.



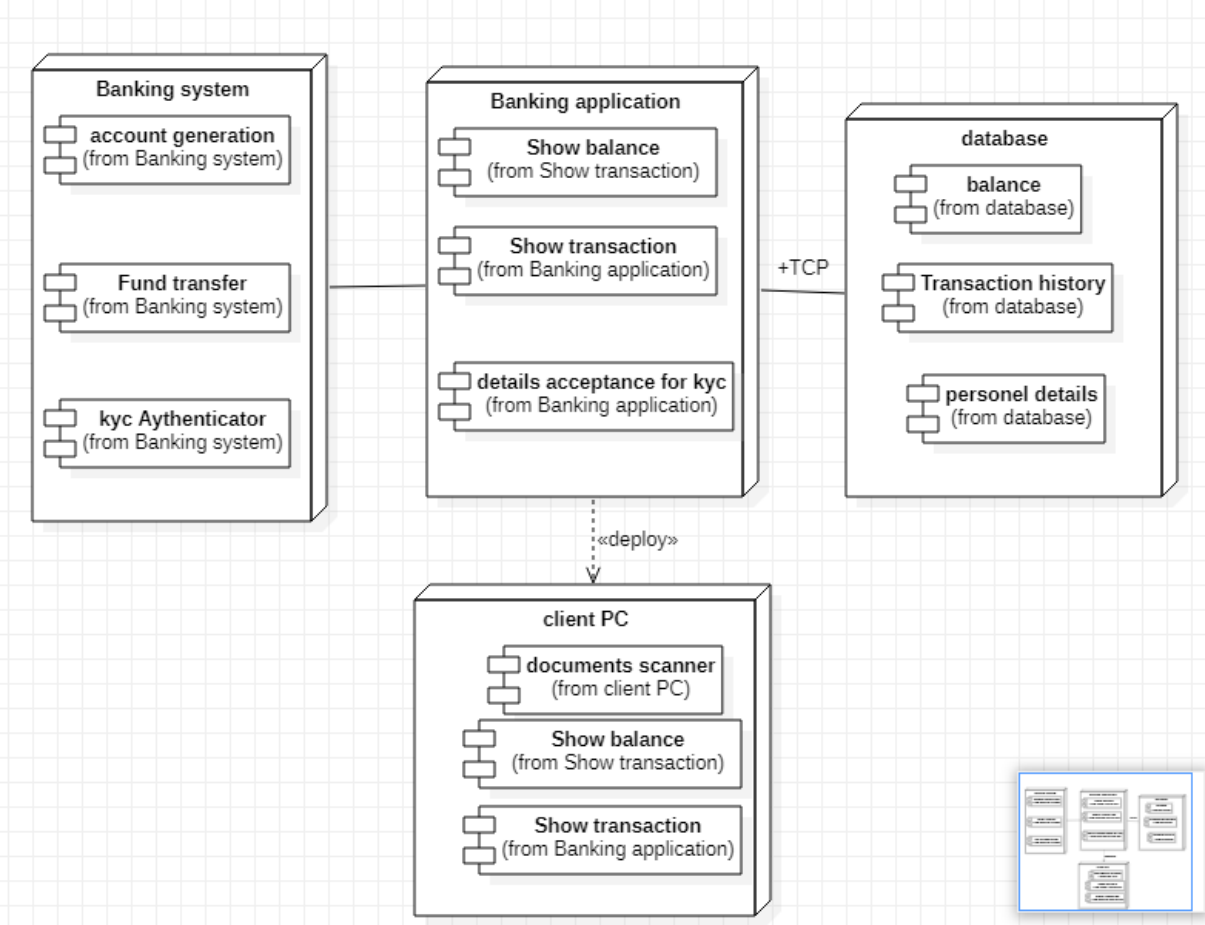
5.4 Deployment diagram for an intelligent banking system service

Design and develop a deployment diagram of intelligent banking system services. The deployment diagram clarifies the communications between links(nodes) present in the

banking system. This concept enables the banking system to work according to the design given to it. Deployment diagrams depict the setup of run-time processing nodes and the components that reside on them.

The banking system uses a UML deployment diagram to show how should the developed software be deployed. The deployment diagram shows the scenario when the system is deployed. It has 4 nodes represented with boxes and relationship connections. The nodes are the banking system, the client's PC, the bank application, and the bank database. The system node contains developed software that will hold the banking materials needed online.

For the connection, the system is connected to the application and database using a private network which enables it to pass a connection to the devices and enable clients to access the system. The database and the application then can communicate using a TCP/IP connection.



5.4 Deployment diagram for Gaming and Entertainment System

Design and develop a deployment diagram of UML is also used in the gaming industry formodeling the game's architecture, character interactions, and story.A deployment diagram in the context of a Gaming and Entertainment System illustrates the physical arrangement of hardware and software components in a distributed system. The type of diagram shows how software components are deployed and interact with the hardware components in different nodes. Here's a simplified example of a deployment diagram for a Gaming and Entertainment System.

The nodes include

User's Device: Represents the device used by the user to access and interact with the gaming and entertainment

system. This could be a PC,console, mobile device, or any other platform.

Game Client: The software component running on the user's deviceresponsible for rendering the game graphics,

handling user input, andcommunicating with the game server.

Game Server: This component manages the game's logic and coordinatescommunication between players. It may

also handle tasks like matchmaking,scoring, and other multiplayer aspects. The game server interacts with both the

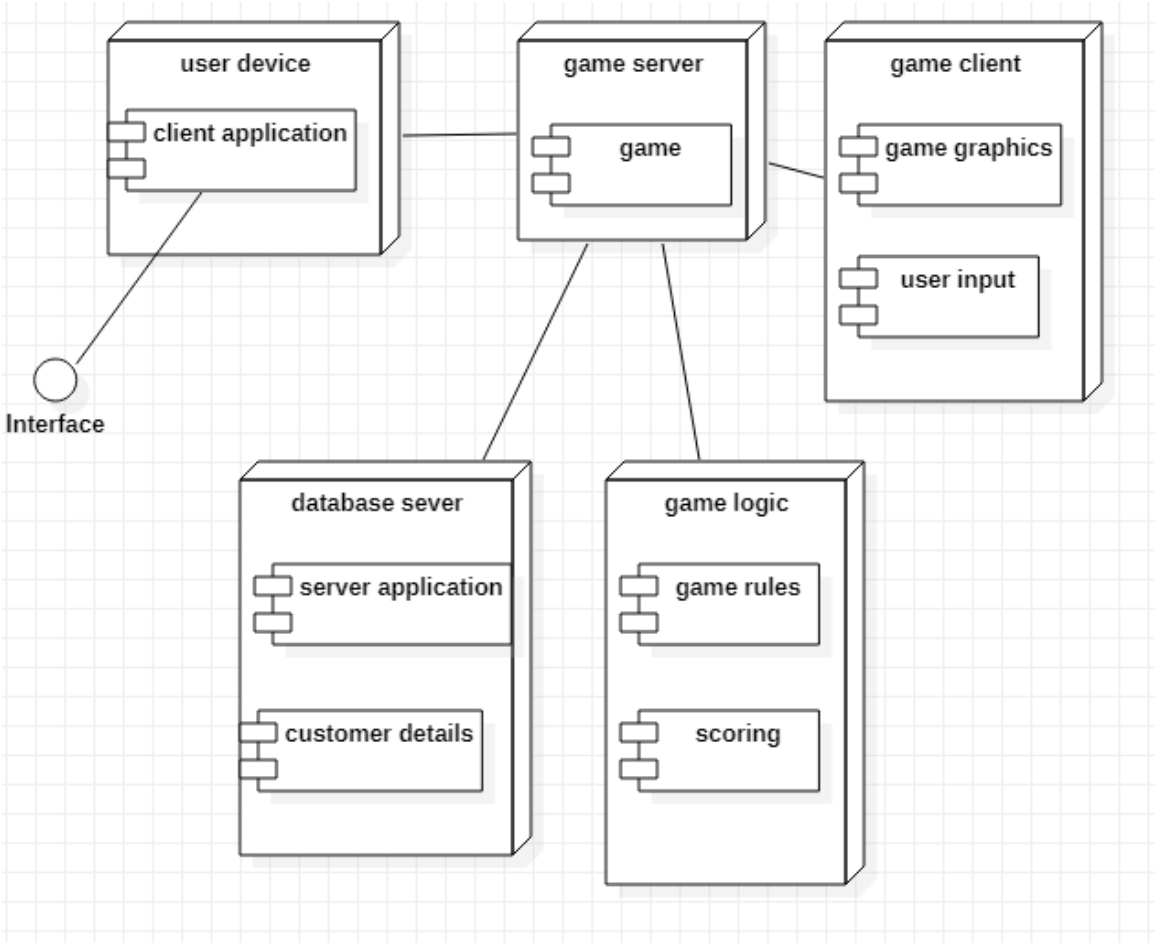
user's device and the database server.

Game Logic: This component represents the core logic of the game and isexecuted on the game server. It includes

game rules, scoring mechanisms, and other gameplay-related functionality.

Database Server: Stores and manages game-related data such as player profiles, game state, and other relevant

information. The game server communicates with the database server to retrieve and store data.



5.5 Deployment diagram for Cyber Car Rental Network

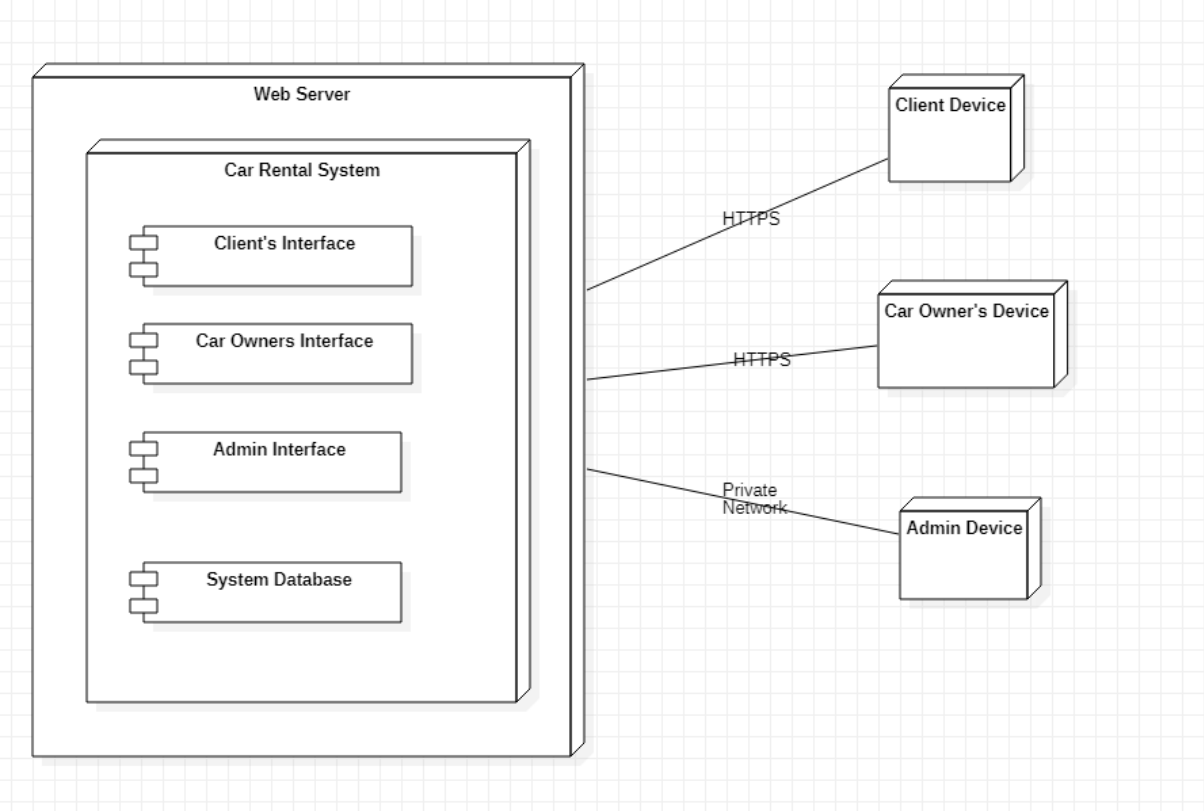
Design and develop a deployment diagram of Cyber Car Rental Network. Online vehicle rental software allows to keep precise records of your whole fleet in one location, making day-to-day operations straightforward. Customers can hire a vehicle through a car rental web-based system. This technology allows the company to make its services available to the general public via the internet while also keeping track of its performance.

The deployment diagram shows the scenario when the system is deployed. It has 5 nodes represented with boxes and relationship connections.

The nodes are the car rental system, the webserver (system server), the admin's device, the client's device, and the car owner's device. The system car rental system node contains a developed database and other component that will hold the details of the system online.

For the connection, the system is placed within the server, whilst the client and car owner's devices and the server were connected using HTTPS.

The admin's device uses a private network which enables it to pass a connection to the devices and enable the admin to access the system and database. The admin and the other users can communicate through the system.



5.6 Deployment diagram for HR Operations Automation System

Design and develop a deployment diagram of an HR Operations Automation System which

is a designed software to keep up with employees' information in an establishment. This

software keeps track of their employees' information and the specifics of their payroll system

allowing them to issue payroll information.

The software has the complete set of employee Automation tools that a company needs to

keep track of employee information, engagement, and performance, as well as make more

money for the whole company.

The employee system also directs and supervises the activities of employees in the

appropriate direction. Keeps and manages information that is important to your employees

in a safe way, like personal and work-related information

The designed deployment diagram for employee system shows the components (nodes) included to carry out the process. Nodes are represented by boxes that are labeled as software or hardware that specify the included components to carry out the employee Automation process. The boxes will then be connected and labeled to declare the type of connection they have with the other components.