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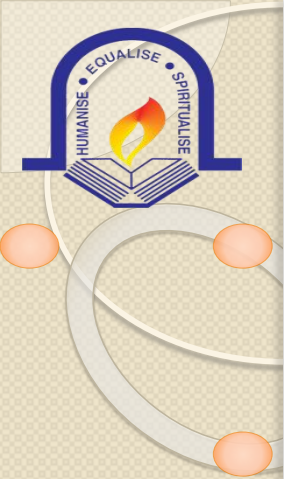✦ Department Accredited by NBA

Department of Computer Engineering

Distributed Computing Lab

Presented By:

Shaikh Mohd Ashfaque

Computer Engineering,
Sem-VIII

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Experiment No. 02

AIM: Write a Program to demonstrate Interprocess Communication in Client-Server Environment Using Java.

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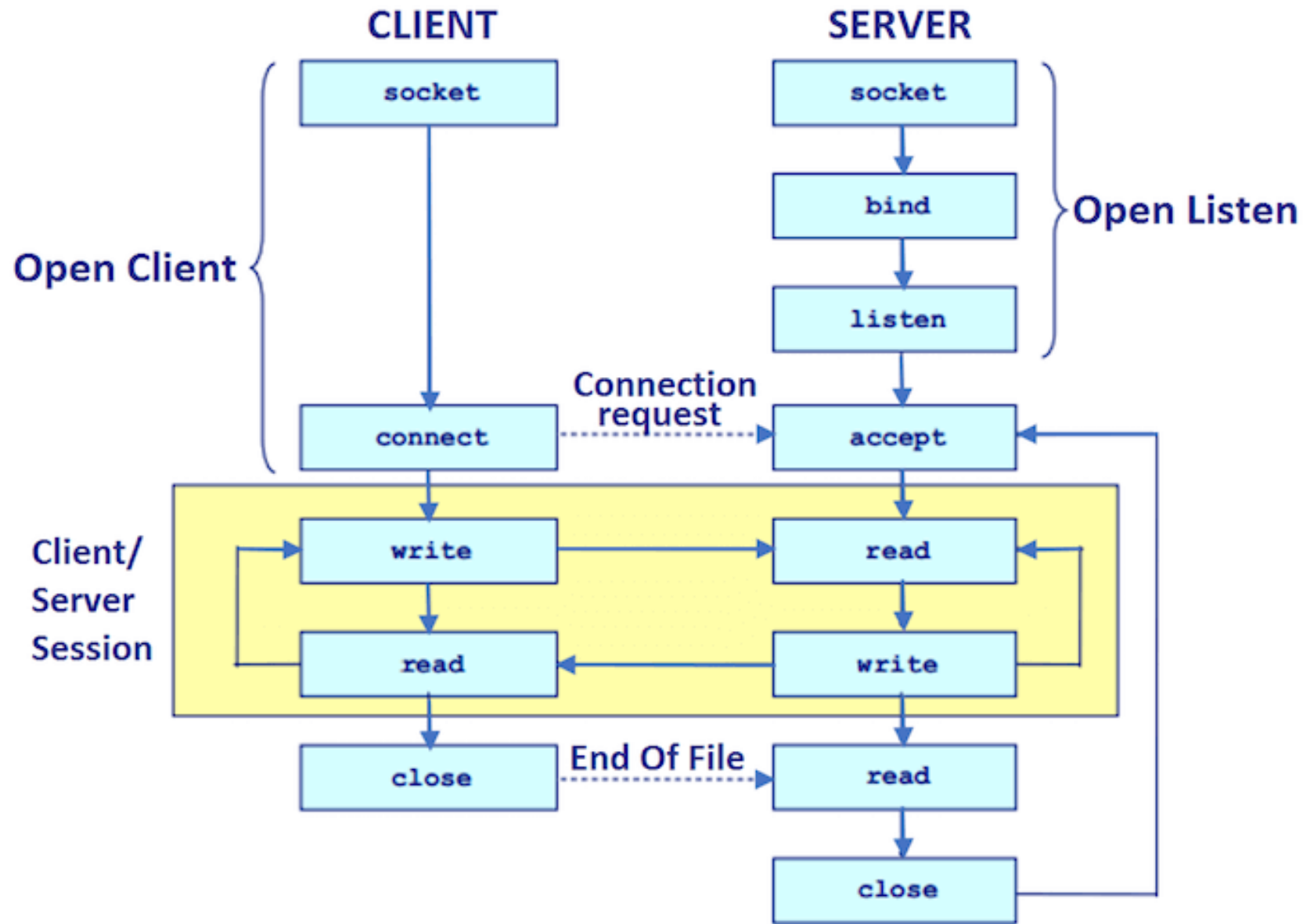Question?

Q) What is Socket Programming?

Java Socket Programming

❑ **Java Socket programming is used for communication between the applications running on different JRE.**

❑ **Java Socket programming can be connection-oriented or connection-less.**

❑ **Socket and ServerSocket classes are used for connection-oriented socket programming and DatagramSocket and DatagramPacket classes are used for connection-less socket programming.**

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The client in socket programming must know two information:

1.IP Address of Server, and
2.Port number.

SOCKET API

Prof. Shaikh Mohd Ashfaque

Socket class

- A socket is simply an endpoint for communications between the machines. The Socket class can be used to create a socket.

Important methods

Method	Description
1) public InputStream getInputStream()	returns the InputStream attached with this socket.
2) public OutputStream getOutputStream()	returns the OutputStream attached with this socket.
3) public synchronized void close()	closes this socket

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ServerSocket class

- The ServerSocket class can be used to create a server socket. This object is used to establish communication with the clients.
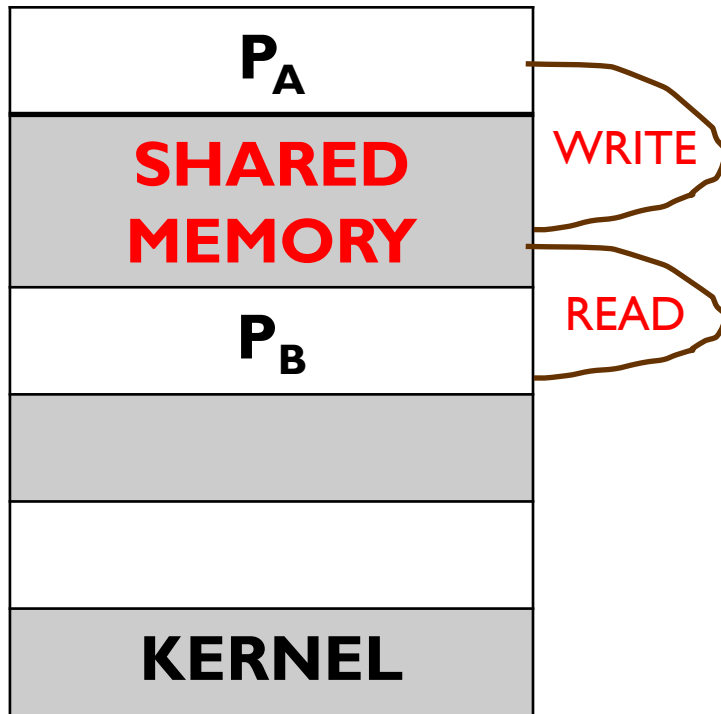
Important methods

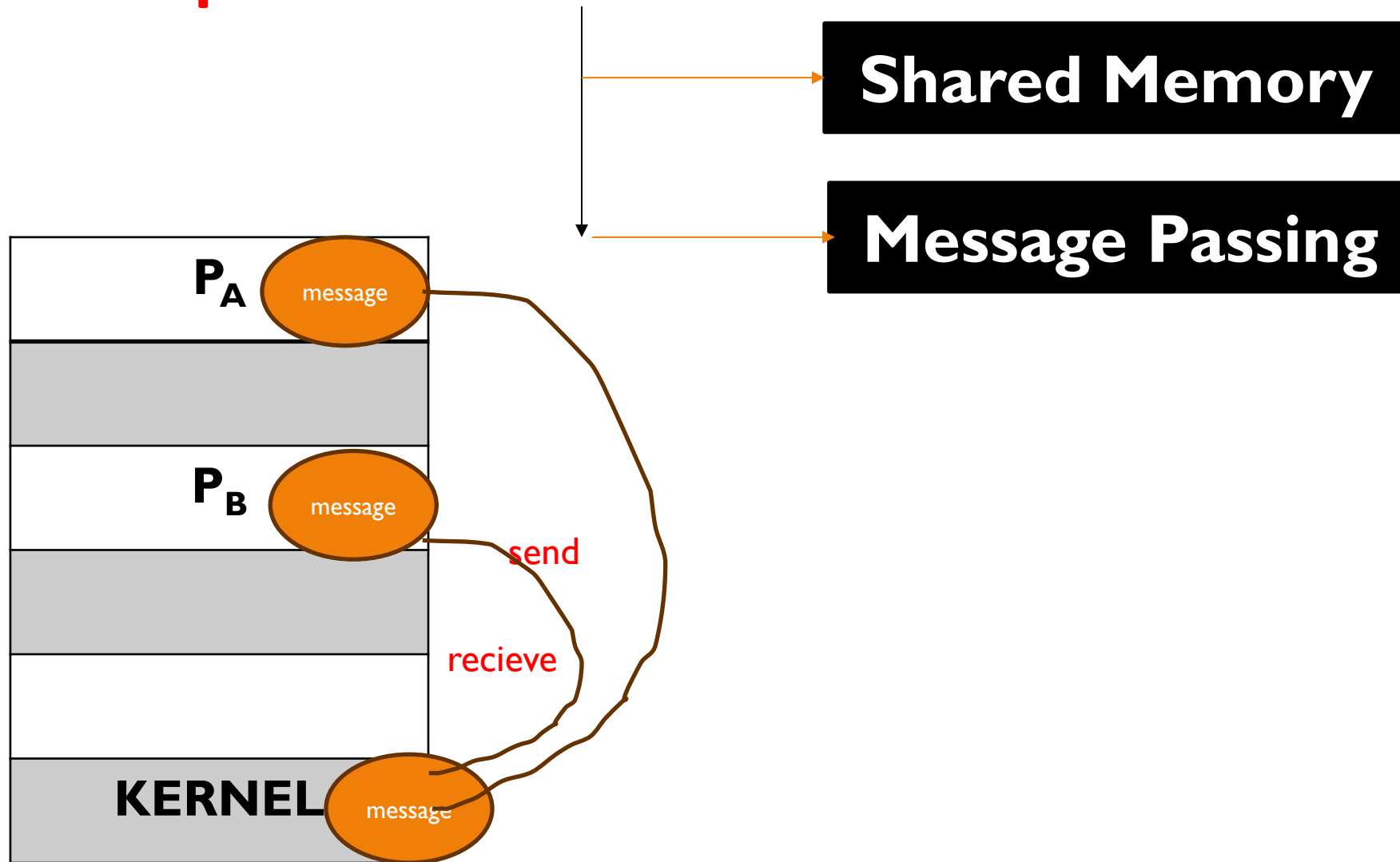| Method	Description
1) public Socket accept()	returns the socket and establish a connection between server and client.
2) public synchronized void close()	closes the server socket.

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Interprocess Communication in Distributed Systems

Shared Memory

Message Passing

P_A

SHARED MEMORY — WRITE

P_B — READ

KERNEL

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Interprocess Communication in Distributed Systems

Shared Memory

Message Passing

P$_A$

message

P$_B$

message

send

recieve

KERNEL

message

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Summary

❖ **In this Practical, we have learnt to:**

How to write a Program for IPC using java.

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Thank You