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This repository contains distributed systems assignments according to SPPU 2019 Pattern along with their execution steps

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🌐 Public repository · Forked from [meghadandapat/BE-IT-DS](#)

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This branch is up to date with [meghadandapat/BE-IT-DS:main](#) .

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🌐 meghadandapat Update README.md last year ⋮ 🕒

📁 Assign1	Update AddServer.java	last year
📁 Assign2	deleted class files	last year
📁 Assign3	Delete arrSum.java	last year
📁 Assign4	Update server.py	last year
📁 Assign5	client server using java sockets	last year
📁 Assign6	Update Bully.java	last year
📁 Assign7	LP-5 assignments	last year
📁 Sockets	Delete Client.class	last year
📄 README.md	Update README.md	last year

Distributed Systems Assignments of SPPU Final Year IT Syllabus (2019 pattern)

Assignment No.	Problem Statement
Assignment 1	Implement multi-threaded client/server Process communication using RMI.
Assignment 2	Develop distributed application using CORBA to demonstrate object brokering (Calculator or String operations).
Assignment 3	Develop a distributed system, to find sum of N elements in an array by distributing N/n elements to n number of processors MPI or OpenMP. Demonstrate by displaying the intermediate sums calculated at different processors.
Assignment 4	Implement Berkeley algorithm for clock synchronization.
Assignment 5	Implement token ring based mutual exclusion algorithm.
Assignment 6	Implement Bully and Ring algorithm for leader election.
Assignment 7	Create a simple web service and write distributed application(calculator) to consume the Web Service.
Extra	Develop any distributed application for implementing client-server communication programs based on Java Sockets.

Execution Steps

Pre-requisites:

1. Install JDK-8

```
sudo apt-get remove openjdk*
sudo apt update
sudo apt install openjdk-8-jdk openjdk-8-jre
```



2. Download [MPJ Express](#) and extract in the Downloads dir

3. Install Apache Netbeans

```
sudo apt update && sudo apt upgrade
sudo snap install netbeans --classic
```



Glassfish server version must be 4.1.1

Assignment 1:

Terminal 1:

```
javac *.java
rmic AddServerImpl
```



README



Terminal 2:

```
rmiregistry
```



Terminal 3:

```
java AddServer
```



Terminal 4:

```
java AddClient 127.0.0.1 5 8
```



Assignment 2:

Terminal 1:

```
idlj -fall ReverseModule.idl
javac *.java ReverseModule/*.java
orbd -ORBInitialPort 1056&
java ReverseServer -ORBInitialPort 1056&
```



Terminal 2:

```
java ReverseClient -ORBInitialPort 1056 -ORBInitialHost localhost
```



Assignment 3:

Terminal:

```
export MPJ_HOME=/home/ubuntu/Downloads/mpj-v0_44
export PATH=$MPJ_HOME/bin:$PATH
javac -cp $MPJ_HOME/lib/mpj.jar ArrSum.java
$MPJ_HOME/bin/mpjrun.sh -np 4 ArrSum
```



Assignment 4:

Terminal 1:

```
python client.py
```



Terminal 2:

python server.py

Assignment 5:

Terminal

javac Tring.java
java Tring

Assignment 6:

Terminal

javac Bully.java
java Bully
javac Ring.java
java Ring

Assignment 7:

[Youtube tutorial](#)

Extra:

Terminal 1:

javac *.java
java Server

Reminal 2:

java Client

Releases

No releases published
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Packages

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Languages


Java 85.7%

Python 9.9%

HTML 4.4%


Suggested workflows

Based on your tech stack

 Django


Build and Test a Django Project

Configure

 Publish Java Package with Gradle

Build a Java Package using Gradle and publish to GitHub Packages.

Configure

 Publish Java Package with Maven

Configure

Build a Java Package using Maven and publish to GitHub Packages.

[More workflows](#)

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