

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

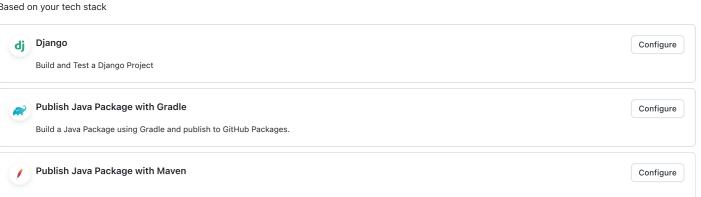
Assignment No.	Problem Statement
Assignment 1	Implement multi-threaded client/server Process communication using RMI.
Assignment 2	Develop distributed application using CORBA to demonstrate object brokering (Calculator or String operations).
Assignment 3	Develop a distributed system, to find sum of N 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.
<u>Extra</u>	Develop any distributed application for implementing client-server communication programs based on Java Sockets.

Execution Steps

Pre-requisites:

1. Install JDK-8

```
Q
         sudo apt-get remove openjdk*
         sudo apt update
         sudo apt install openjdk-8-jdk openjdk-8-jre
   2. Download \underline{\text{MPJ Express}} and extract in the Downloads dir
   3. Install Apache Netbeans
                                                                                                                             O
         sudo apt update && sudo apt upgrade
         sudo snap install netbeans --classic
      Glassfish server version must be 4.1.1
  Assignment 1:
  Terminal 1:
                                                                                                                             Q
    javac ∗.java
    rmic AddServerImpl
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                                                                                                                             Q
    rmiregistry
  Terminal 3:
                                                                                                                             Q
    java AddServer
  Terminal 4:
                                                                                                                             Q
    java AddClient 127.0.0.1 5 8
  Assignment 2:
  Terminal 1:
                                                                                                                             Q
    idlj -fall ReverseModule.idl
    javac *.java ReverseModule/*.java
    orbd -ORBInitialPort 1056&
    java ReverseServer -ORBInitialPort 1056&
  Terminal 2:
                                                                                                                             Q
    java ReverseClient -ORBInitialPort 1056 -ORBInitialHost localhost
  Assignment 3:
  Terminal:
                                                                                                                             Q
    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:
                                                                                                                             0
    python client.py
  Terminal 2:
```



24/04/2024, 10:56 dipesh2212/dspractical: This repository contains distributed systems assignments according to SPPU 2019 Pattern along with their executi...

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

More workflows Dismiss suggestions