**First Tutorial on Thursday (11/ 21)**

# Objectives

I am planning to discuss the following activities/tasks in the tutorial. Objective is to help you people understand and implement the required programming tasks.

# A little Introduction about experiment process

* Experiment phases
* Documents Involved

# B. Environment Setup:

* Use of GitHub and experiment repository structure
* Install Eclipse Juno with AspectJ plugin
* Import an existing project in eclipse
* Create an AspectJ project
* Setting up log4j log properties
* How to enable/disable logs
* Debug aspects
* Using external tool configuration in eclipse
* Using third-party jar files with user library
* Provided helping files for Introduction

# C. Sample Applications

* Some basic understanding on Java NIO channels
* UDP/TCP communications using NIO CHANNELS
* A little introduction about the code for all three sample applications

# D. AspectJ Tutorial

* Some basics of AOSD
* First example to illustrate some basic concepts in AspectJ
* A TCP CLIET/SERVER program which logs the send and receive time using AspectJ
* A UDP CLIET/SERVER program which logs the send and receive time using AspectJ
* Few good practices I learned about programming AspectJ for designing, coding and debugging

# E. CommJ Tutorial (Optional for AspectJ group members)

* A little basics about the building blocks in CommJ architecture
* A little introduction about the conversations
* How to build CommJ library with java sample application
* How to run application by disabling CommJ aspects
* A TCP CLIET/SERVER program which logs the send and receive time using OWS, OWR, RR and MS conversations
* A UCP CLIET/SERVER program which logs the send and receive time using OWS, OWR, RR and MS conversations
* Few good practices I learned about programming CommJ for designing, coding and debugging