Data Networks
Mini Homework: Introduction to OMNet++
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Objective

The goal of this mini homework is to introduce you to OMNet++, a powerful network simulation tool widely used in the field of data networks. Through this assignment, you will learn the basics of setting up a network simulation environment, creating network topologies, and running simple simulations.

Tasks

Installation and Setup

1. Install OMNet++ on your computer by following the installation instructions provided in the OMNet++ documentation.

2. Ensure that you have the necessary development environment set up to work with OMNet++.

Creating a Simple Network Topology

3. Create a new OMNet++ project for this assignment.

4. Design a simple network topology with at least two nodes interconnected by links.

Implement a Simple Communication Scenario

5. Write a network description file (.ned) that defines the network topology you created in step 2.

6. Implement a basic communication scenario where one node sends a "Hello, OMNet++!" message to another node.

7. Create a C++ source file (.cc) that models the behavior of the nodes and the message transmission.

Running the Simulation

8. Use OMNet++ to run the simulation of your network scenario.

Submission

- Submit the .cc and .ned files you created for this mini homework.

Useful Links

Here are some useful resources to help you with your OMNet++ and network simulation tasks:

1. Official OMNet++ Installation Guide:
   `https://doc.OMNetpp.org/OMNetpp/InstallGuide.pdf`

2. OMNet++ Tutorial (Video Series):
   `https://www.youtube.com/watch?v=Pc38sbRsGrw&list=PLQm9GOaed7IDw3KZTKEjfc4zNRYRSMOma&ab_channel=OMNetppTutorial`

3. Simple Tictoc Project Tutorial (Video):
   `https://www.youtube.com/watch?v=HB6eeODoHes&ab_channel=FarouqMuhammadAliyu`