

# Dynamic Routing Protocols in ns-3

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

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# Learning Objectives

In this tutorial, we will learn to









# System Requirements

To record this tutorial, I am using



# System Requirements

To record this tutorial, I am using

▶ **Ubuntu Linux 22.04 OS**







# Pre-requisites

**To follow this tutorial**



# Pre-requisites

## To follow this tutorial

- ▶ You must have basic knowledge of Linux and ns-3



# Pre-requisites

## To follow this tutorial

- ▶ You must have basic knowledge of Linux and ns-3
- ▶ For pre-requisite Linux and ns-3 tutorials, please visit <https://www.spoken-tutorial.org/>



# Code Files

- ▶ The files used in this tutorial are provided in the Code files link



# Code Files

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- ▶ Please download and extract the files



# Code Files

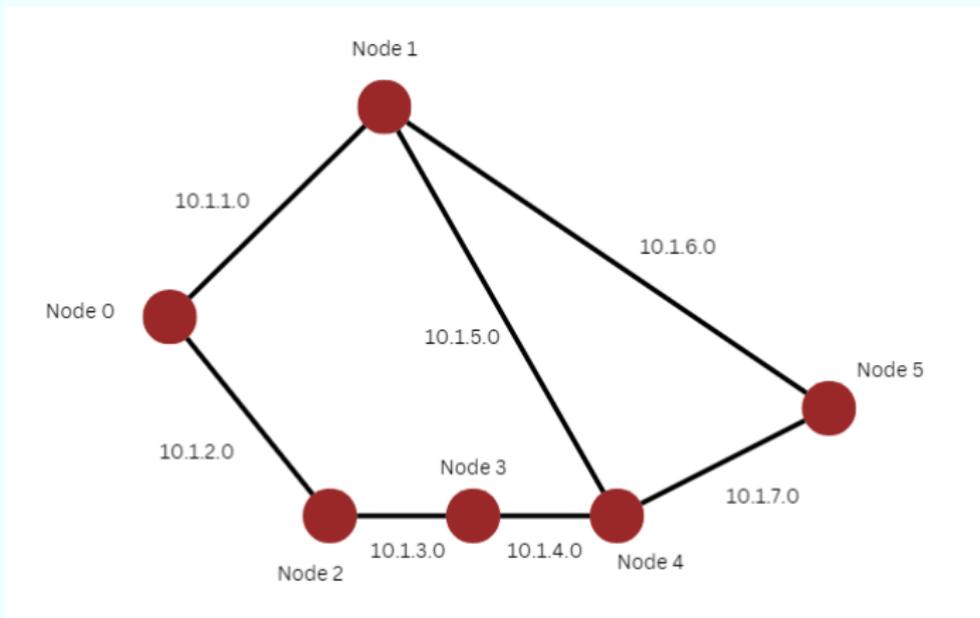
- ▶ The files used in this tutorial are provided in the Code files link
- ▶ Please download and extract the files
- ▶ Make a copy and then use them while practicing







# Topology



# Summary

- In this tutorial, we have learnt to
- ▶ Create a multi-path topology
  - ▶ Schedule down times for links
  - ▶ Implement OSPF dynamic routing



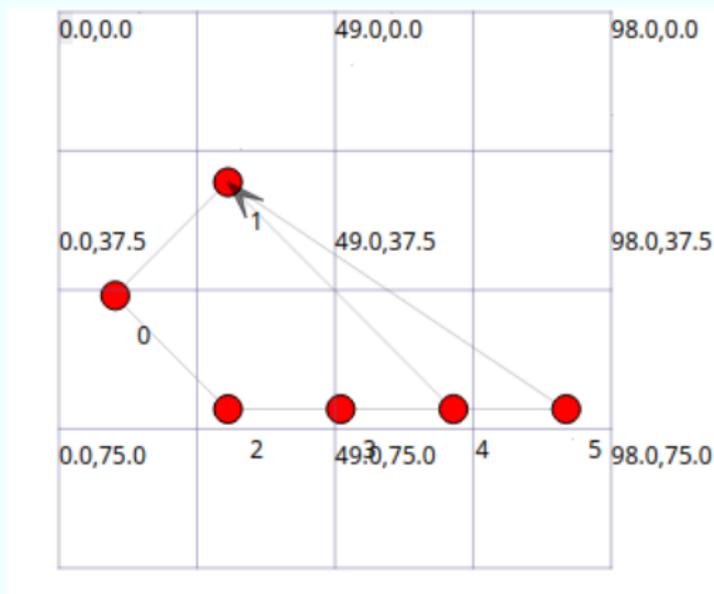
# Assignment

**As an assignment, please do the following**

- ▶ **Modify the code for this tutorial**
- ▶ **Make the link between node 1 and node 4 down at 5 seconds**
- ▶ **Generate an XML file for animation**



# Assignment - Observation





# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Answers for THIS spoken tutorial

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer
- ▶ You will have to register to ask questions



- ▶ For any general or technical questions on ns-3, visit the FOSSEE forum and post your question

<https://forums.fossee.in/>



# Acknowledgement

- ▶ **Spoken Tutorial Project was established by the Ministry of Education, Government of India.**



# Acknowledgement

- ▶ We thank Dr.Moyukh Laha from IIT Kharagpur for his domain support
- ▶ We would also like to thank Dr. R. Radha, Dr. X. Anita, and Dr. T. Subbulakshmi from VIT, Chennai for their support



# Thank you

- ▶ This is Josiga, a FOSSEE Summer fellow 2023, IIT Bombay signing off

