

Presentation Script

Introduction

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Hello, my name is Josh and I am a student at the University of Manitoba. Today I will be presenting our project, TOPOGCHAMP, which is a network topology simulation and educational game. This project was made as a project for COMP4300 - Computer Networks.

We will be discussing the project, its contributors, dependencies, how to run it, and a demonstration.

Overall, the project was a great learning experience and we are excited to share it with you today. We started the project by brainstorming ideas and eventually settled on a network topology simulation and educational game. We found that we did not have a lot of experience with network topologies and thought it would be a great learning experience. We wanted to create a project that was both educational and fun to work on.

Contributors

We had three contributors to this project. Myself, Andrii Provozin, and Darwin Ross. We all worked together to create this project and each of us contributed in different ways. I, Josh, was responsible for the front-end development of the project. Andrii was responsible for the back-end development and Darwin was responsible for the game logic. We all worked together to create this project and collaborated on the different aspects of the project.

Home Page

As written in the home page, there are two main components to the project. The first is the educational game, which allows users to play a game that tests their knowledge of network topologies. The first is the network topology simulation, which generates a network topology of DNS servers based on the current configuration of the network the user is connected to.

Write-up

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We have provided a write up within the website that goes into more detail about the project. This write up includes information about the project. We talk about the tools and technologies used to create the project. We also talk about the challenges we faced and how we overcame them. We also talk about the future work that could be done on the project.

Game

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The game is a fun way to test your knowledge of network topologies. The game is a simple game that allows you to manipulate the items within a network. You use these end-system devices as nodes and connect them using edges to generate a network topology. The game is a fun way to learn about network topologies and test your knowledge.

As an example, I will run through a demonstration of 2 levels from the game.

1. Firstly the simple, Ring Topology. This is a simple network topology where each node is connected to exactly two other nodes, forming a single continuous pathway for data to travel. This is a simple topology that is easy to understand and implement.
2. Secondly, I will skip to the Bus Topology. This is a simple network topology where all the end-systems are connected to a link which are connected into a single continuous pathway. This one is a bit more complex than the Ring Topology, but we see the other types of nodes in a network.

Simulation

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The simulation is a fun way to generate a network topology of DNS servers based on the current configuration of the network the user is connected to. The simulation generates a network topology of DNS servers based on the current configuration of the network the user is connected to. You are given the ability to move around the simulation dissecting the network you are connected to. This is a fun way to learn about network topologies and DNS, seeing how they are implemented in the real world.