Assignment 05

Problem 1: Optimization of network configurations

For your final assignment, you have been asked to optimize network configurations. You have been given two network topologies to work with:

- Network 1: Clock and Data Rate Control
- Network 2: Adaptive Power Control

The goal is to minimize latency and maximize throughput. You have access to the following resources:

- Network Simulations
- Performance Metrics
- Optimization Tools

Your task is to modify the network configurations to achieve the best performance. You need to submit a report detailing your findings.

Problem 2: Network Security

You are tasked with implementing a secure communication protocol for a wireless network. The protocol should ensure data integrity, confidentiality, and authenticity. You have access to the following security technologies:

- Encryption Algorithms
- Authentication Protocols
- Key Management Systems

You need to design and implement the protocol, ensuring it is robust against common attacks. Your report should include the design specifications and a demonstration of its effectiveness.

Problem 3: Network Traffic Analysis

Your team is analyzing network traffic patterns to identify anomalies and potential security threats. You have access to log files and real-time network monitoring tools. Your objectives are:

- Identify unusual traffic patterns
- Investigate potential security breaches
- Propose mitigation strategies

You need to present your findings in a detailed report, including any tools or techniques used and the effectiveness of your analysis.

Due Date: 2023-04-24, 23:59 GMT