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## Intent Based Application

*Group Project Report for Advanced Network Architectures  
And Wireless Systems*

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# Introduction

This project is aimed to design and develop an intent based application. The scenario is the following: *"Consider a set of clients that can communicate through a redundant network (e.g., based on a spine-leaf topology.) An external application can request to install paths between host pairs, by just specifying the endpoint identifiers, we refer to this as an host-2-host intent. The network has to allow communications only among the specified host pairs. Moreover, the network has to automatically reconfigure in case of link failures. Design and realize a system that allows users to request and withdraw host-to-host intents, and configures the underlying network accordingly."*

The objectives of the projects are:

1. *"Implement a Floodlight module that exposes a RESTful interface allowing clients to create/delete host-to-host intents. The module will then dynamically install and update flow rules in the network to allow the communication among specified pairs. Possible path switches must occur transparently to clients."*
2. *"Test the overall system using Mininet and Floodlight, devising proper scenarios to demonstrate the above functionalities."*

# Chapter 1

# Designing

## Chapter 2

# Implementation

## Chapter 3

# Testing