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1.0 Introduction

This section provides an overview of the entire requirement document. This document describes all data, functional and behavioral requirements for software.

1.1 Goals and objectives

The main goal of this project was to create a program that takes an IP address in CIDR notation and outputs all the information related to the IP’s subnet as well as other subnets.

1.2 Statement of scope

There is one major input and that is the IP address in CIDR Form the outputs are:

* Network address
* Broadcast address
* Number of hosts
* Number of subnets
* Subnet class
* Host range

1.3 Software context

The Idea is to give the consumers product that gives them all the necessary subnet information for a give IP address.

1.4 Major constraints

The limited amount of time to research and develop this product has created an obstacle in delivering a fully polished product.

The lack of experience in the field was another constraint since there were limited resources to attempt this challenge

Blatant lack of time management skills also severely impacted the development and release of this product.

2.0 Data design

There are raw values that represent IP addresses and they have a method through which they pass which converts them to a proper IP format. The majority of the operations performed are bitwise operations.

2.3 Temporary data structure

Certain local variables were used for ease of readability for people that would look at the code

3.0 Architectural and component-level design

The program is separated into 2 classes for the purpose of compartmentalization. The main method is in its own class and creates an object of the SubnetCalculator class and uses its methods.

4.0 User interface design

The user interface is through the console. The user is prompted to enter a IP address in CIDR notation.

4.3 Components available

I only know how to use the console.

5.0 Restrictions, limitations, and constraints

See section 1.4

6.0 Testing Issues

Utilized the “Pass, Fail, Boundary” tests

6.1 Classes of tests

Trial and error tests.

6.2 Expected software response

Bug removal.

7.0 Deliverable

A subnet calculator that outputs all of the information for that subnet.

7.1 Release notes

I only have one release.

7.3 Deliverable and Deployment

Run the .java file in a java ide.