Networking Rapport PJ-1

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1 Software Architecture

The program is broken into 5 Classes which are : Client, Request, Message, Header, Question

1.1 Client

The client is used as the main class and Contains our 2 most important methods which are : Query() and DecodeResponse(). Those two methods are used to Send our request to the server and retrieve and parse the server response to display it

1.2 Message, Header, Question

Those classes are used to store the data following the RFC1035 convention Message just stores the Header and The question after those have been formatted in the proper way

1.3 Request

This class retrieve the content of message and puts it in a byte buffer that will be sent to the server.

2 Message-Oriented Communication using a stream

The whole process of retrieving and decoding the response sent by the server is handled by the decodeResponse method of Client class. I just put the response given by the server into a ByteArrayInputStream That will be handled by a Datainputstream.

2.1 Datainputstream

I made the choice of using a DataInputStream beacause it basically works as a FIFO Queue in whcih Ican pop either a byte or a short which is perfect in our

case sinse after retrieving and storing data I don't need it in the queue anymore. After that all I need is to pop following the order given by RFC1035 and the parsing of the answer is easily completed.

3 Limits and possible Improvement

In this part I will discuss what I thinkc could've been done better on my part

3.1 Code architecture

In this project I use 3 Separated classes to store information IE (Message, Header, Question) I don't store the answer Anywhere since the assignement only asks for stdout output. But it should be a good practice to store the data

3.2 Readibility

To retrieve the answer of teh server i just pop my dataInputStream untill I get something i need and i do the whole process in one go withing the DecodeResponse method. this process could be separated into smaller tasks handled by other methods. this would make the project more readable.