Assignment 2: Reading between the Datagrams

Summary

For applications to transfer and receive data, they must utilize established protocols to transfer information reliably and automatically. These are normally standardized through documentation known as request for comments (RFC) which state the structure, organization, and purpose of the protocol. Informationally, this includes core information such as the layout of the datagram, the port, and when it would be used.

Background

The scenario of this assignment is one where the Death Star's main terminal for the countdown mechanism has suddenly and irreparably failed. To get it to function, the gunners for the Death Star's super laser have asked you to quickly code a script that they can run to write traffic, receive responding traffic, and fire the super laser in time for the planned movement to Alderaan.

Objectives

Given with this assignment are an RFC document and a server.py file to be run in the process of completing this assignment. Your objectives are straight forward.

1) Using the RFC document, write a message to the server instructing it that the countdown will follow and handle the response.
2) Write message traffic in response to the countdown it's expecting.

Deliverables

The following are expected upon completion of this assignment.

1) Your client code (this may be written in Python, Java, or C++).
2) The flag returned through networking traffic after completion of the countdown.

Tips

1) RFCs contain all technical information regarding the protocol, if you have any questions, check the RFC first if it deals with the protocol. Your answer will likely be located there.
2) For code to create the client, there are many options available, as the server will be written in Python, it is recommended to complete the client in Python but is not required