CS2911 Exercise:  
Trivial File Transfer Protocol (TFTP)

This exercise is intended to prepare you for lab 7. The answers should be completed by you and your lab partner and turned in with your lab.  
  
You may find it helpful to consult the TFTP specifications, RFC 1350  
<https://tools.ietf.org/html/rfc1350>

# TFTP Message Types

1. The TFTP protocol makes use of 5 message types. Search the RFC for the message types and fill in the following table (the first one has been done for you):

|  |  |  |
| --- | --- | --- |
| **TFTP Message Type** | **Op Code** | **Other Values in the Message** |
| Read Request (RRQ) | 1 | File name and Mode |
| Write Request (WRQ) | 2 | File name and Mode |
| Data (DATA) | 3 | Data |
| Acknowledgement (ACK) | 4 |  |
| Error (ERROR) | 5 | Error Message |

1. Write in hexadecimal shorthand a TFTP read request message for the file “myfile.txt” that is to be transferred in octet (binary) mode:  
     
   00 01 6D 79 66 69 6C 65 2E 74 78 74 00 6F 63 74 65 74 00
2. Write in hexadecimal shorthand a TFTP acknowledgement message for block 4 of a file transfer:
3. Write in hexadecimal shorthand a TFTP error message indicating that a file was not found. Choose your own appropriate error string:

# TFTP Transfer Modes

Using the TFTP RFC find the description of the transfer modes supported by TFTP and give a description of each. Give an example of when you’d use each transfer mode. You might need to   
search the internet for a more detailed explanation.  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
  
TFTP Connections and Guarantees

1. What transport protocol and port does TFTP use?
2. Given the transport protocol what guarantees does TFTP provide?

# TFTP Error Messages

Search the TFTP RFC for the description of error messages.

1. Give a couple examples of errors that a TFTP client or server might send/receive:
2. How does the TFTP RFC describe what should be done when an error message is received?