Part D Explanation:

The program can be run through the command: python partDEF.py in the terminal. The program relies on a file called generalFile.py, which was taken from the previous assignment (written by me), with minor alterations, in order to make the input packets into a human readable form.
The file partDEF.py contains code for all three parts, since information from one part is used in another. The functions used for this part include: findIPAddresses() and printServiceTypeAndUsedIp().
When the command python partDEF.py is written into the terminal, the terminal will prompt the user to provide the name of the file and then which information the user would like. In this example, the answer to the later should be "1", representing "Find IP Addresses and Service."

###How the code works:
For this part of the assignment, I noted that DNS packets were exchanged on port 53. I used this specification in order to search in the payload of DNS packets for an indicator of the video source. Once one was found, I used dnslib to resolve the dns packet bytes into a human readable form. I used the question section in order to determine if the query name was from Youtube, Daily Motion, or Vimeo by seeing if the domain name provided was in a list of domain names that I was able to find, or if it had the keyword "youtube," "dailymotion," or "vimeo" in it. If the answer section was filled, I knew this section held returned IP addresses from the video server.
After obtaining this list of IP addresses, I removed any IP addresses that were not used for this particular trace.

The returned Ip addresses are as follows:

A. Youtube:

The video streaming service was: Youtube
The IP addresses used from this streaming service were:
      172.217.21.238
      213.202.89.141
      172.217.21.206
      172.217.22.14
      213.202.89.144
      172.217.22.46
      216.58.207.86

B. DailyMotion:

The video streaming service was: DailyMotion
The IP addresses used from this streaming service were:
      195.8.215.137

178.79.227.76
178.79.227.167
188.65.124.91
104.102.30.13
188.65.124.34
95.140.230.217

C. Vimeo:

The video streaming service was: Vimeo
The IP addresses used from this streaming service were:
199.232.18.109
34.120.202.204
151.101.114.109
151.101.112.217
34.120.15.67

As we can see, the number of IP addresses that Youtube and DailyMotion use are the same, while Vimeo uses two less. There is no significant difference in the number of IP addresses these video service providers use.