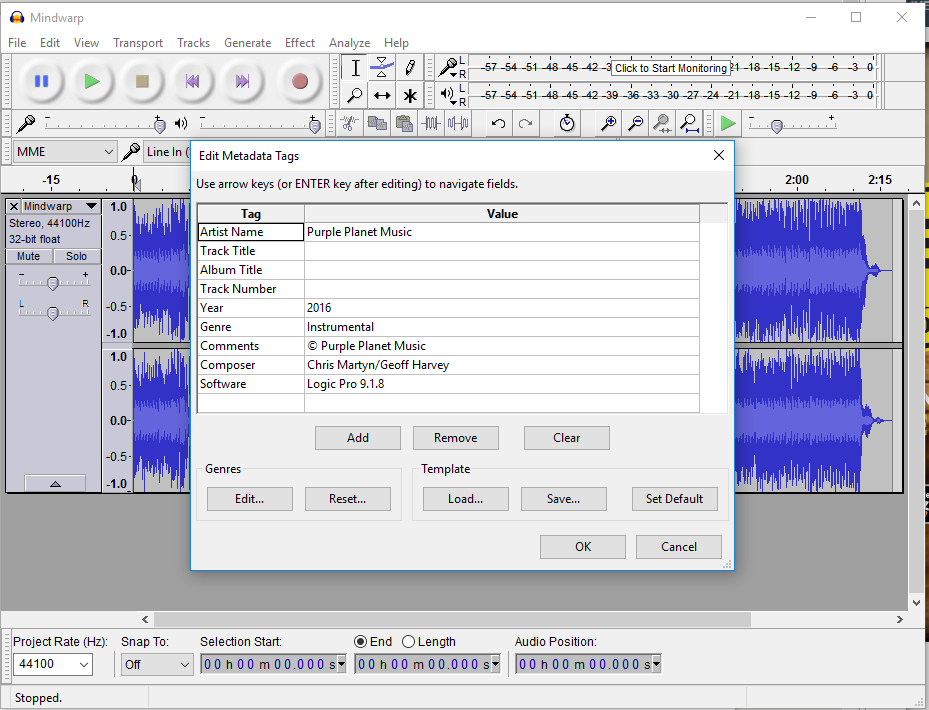
*Metadata in .mp3 files*

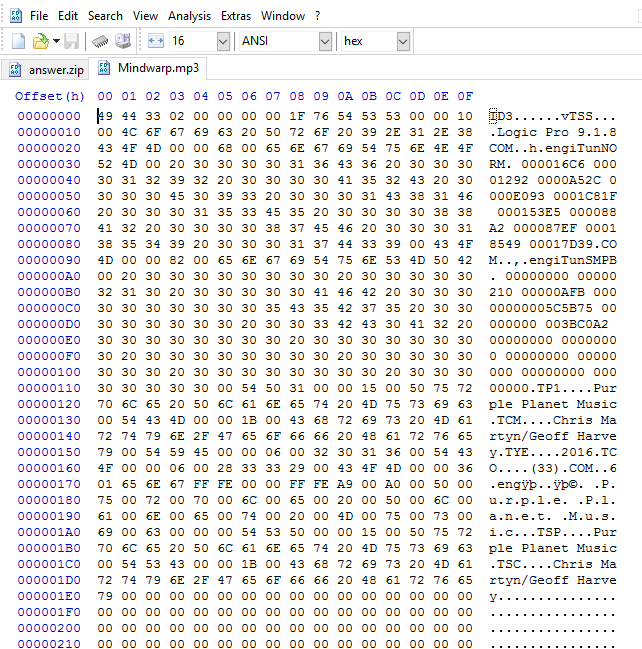
*AP Computer Science Principles Name\_\_\_Key\_\_\_*

In addition to the data that stores the music, mp3 files have metadata on the music's title, artist and album details. Start by finding an mp3 file. <http://www.purple-planet.com/> is a good source of royalty free mp3 files with metadata. If you download an mp3 track like [mindwarp](https://api.soundcloud.com/tracks/266007494/download?secret_token=s-nCHF4&client_id=cUa40O3Jg3Emvp6Tv4U6ymYYO50NUGpJ), you can open the file in an editor like audacity to see the metadata. You can also use a hex editor like HxD to view the metadata as well.

Open your .mp3 file first in Audacity. Choose *File | Edit Metadata*. Take a screen shot and paste it below.



Now open that same file in and hex editor like HxD. You should be able to see the Metadata near the beginning of the file. Take a screen shot that shows the metadata in the hex editor and paste it below.

mp3 files are lossy and there are different bit rates with different qualities. Now visit the NPR website [How well can you hear audio quality?](http://www.npr.org/sections/therecord/2015/06/02/411473508/how-well-can-you-hear-audio-quality) and see if you can discern the differences in different mp3 files.