In the game Metroid, the color of Samus’s suit was originally 16 19 27 on the color pallete of the game. A software called Fceux was used to change the color of the suit, which was our first task. The ROM file was loaded using the Fceux application (which basically helped in running the game)

I used the Debug option to look at the PPU viewer to estimate the color of the palettes. I saw that the color 27 appeared three times in the game. This made me realize that I need to make changes in the color pair of 16-19-27 and not just 27. To start with the assignment, I used the trial and error method to locate the numbers in the hex file which was in the debug option. I decided to change the color pair to my desired color which was 13-23-23. However, I wasn’t able to do it.

Soon after exploring the game more, I saw that as the suit of the character gets updated to its permanent form when the color switches to different numbers till it takes its permanent form. Looking at the original and constantly changing hex values (while the game loads) I saw that the address offset of the armor color was ‘0062A0’. Then I changed the color of the suit from 02 19 27 to 02 23 23. Eventually I wanted the color of the outer suit to be changed so I changed the next 16 to 13. Therefore, I obtained a purple suit.

For hacking credits, I used an application called Tblater. It is an application in which the hex code can be written in a way to obtain the coded fragment of hex file in a game. I typed numbers, alphabetical letters(uppercase), alphabetical letters(lowercase) in the box and uploaded it in the hex file. Later, I saw the decrypted text in the code. I decided to change the ‘PUSH START’ letters to ‘AVLOKITA SHARMA’ as my hacking credits. I explored that in the hex text ff meant space, therefore I was able to add space in the hex file and typed my full name.

My experience with the project was great. It was an interesting and thoughtful lab. Although it required some researching and exploring, but it was easy to do and creative to play with.