**Individual Self-Assessment Deliverable**

**Self-Assessment:**

I was apprehensive at the beginning of the group project, not sure what value I would bring to the group or if we would have all the skills need to be successful. Fortunately, I was able to find a role that allowed me to provide valuable input. My role was the visualization and output and since that is what I was most interested in prior to starting this course, I was grateful for the opportunity. I found out that I could figure out most anything with the help of google and it built my confidence in my Tableau skills. Also, I found out that while my technically abilities might be lacking, such as actual programming, I was able to ask the questions, and make suggestion, that the other could then program to get our desired result. I think the thing I learn most was that we don’t all have to be experts on everything but as a group we were capable to complete the project successfully.

**Team Assessment:**

Group 7 consisting of Amela, Harish, Megan, Michael, and myself. While we were successful in completing the project deliverable on time there were things that we could have done better. Some of our work was disconnected we took our own part of the project and worked separately connecting when needed. Also, with five people we had more people than roles, but we did find away to include everyone and each pull their weight on the project and added valuable input, but it was difficult for some to take complete ownership. The process was a learning experience for all of us and we are proud of the final product.

**Summary of Project:**

**“Spotify - Music to My Ears”**

For our project we found a Kaggle database of over 40,000 songs released over the six decades of 1960-2010, with several different measured features such as acoustics, danceability, duration, energy, instrumental, tempo, and others, to determine if a song was popular or not. We wanted to determine if we could use machine learning to determine if a song would be popular based on how it scored on the various measured features. We tried different Machine Learning models “Random Forest” and “Neural Network” to determine which model would be most effective. We completed the Extract, Transform, and Load process using AWS, PostgreSQL and PySpark technologies. We spilt the database into two separate databases between the measured features and the descriptive data connecting based on a unique identifier. We used Python for programming the machine learning models and determined that both were affective in predicting popularity, but the Random Forest model provided information to measure the different features that we felt was valuable, so we decide that the Random Forest model was preferable. Finally, we used Tableau to create interactive dashboard to present the results.