


## Project Check-In 2

By December 8...

- All of the K-mean algorithm implementation complete including benchmarks related to real world datasets and different initialization strategies 
  - Implemented **K-Means ++** Strategy
  - Comparing both K-Means vs. Random through multiple trials
  - Applied to real world dataset (Spotify-song dataset from Kaggle)
    - Interpreted clusters in terms of musical mood
  - Created benchmark to look at performance
    - Iterations to converge, within cluster sum of squares, runtime (milliseconds)
- Most visualizations made for my written report and slides 
  - K-Means vs Random
  - Spotify Energy vs. Valence
- Draft of my written report with sections 
  - Introduction & Background
  - Implementation
  - Real World Applications
  - Benchmarking Results/Analysis
  - Conclusion/Summary
    - Have already written a good portion of it
- Draft of my slides with sections 
  - Drafted complete Google Slides with similar sections as report

Should have full slides/report by Tuesday 12/16