Jordan Rosenblum (jr3478)
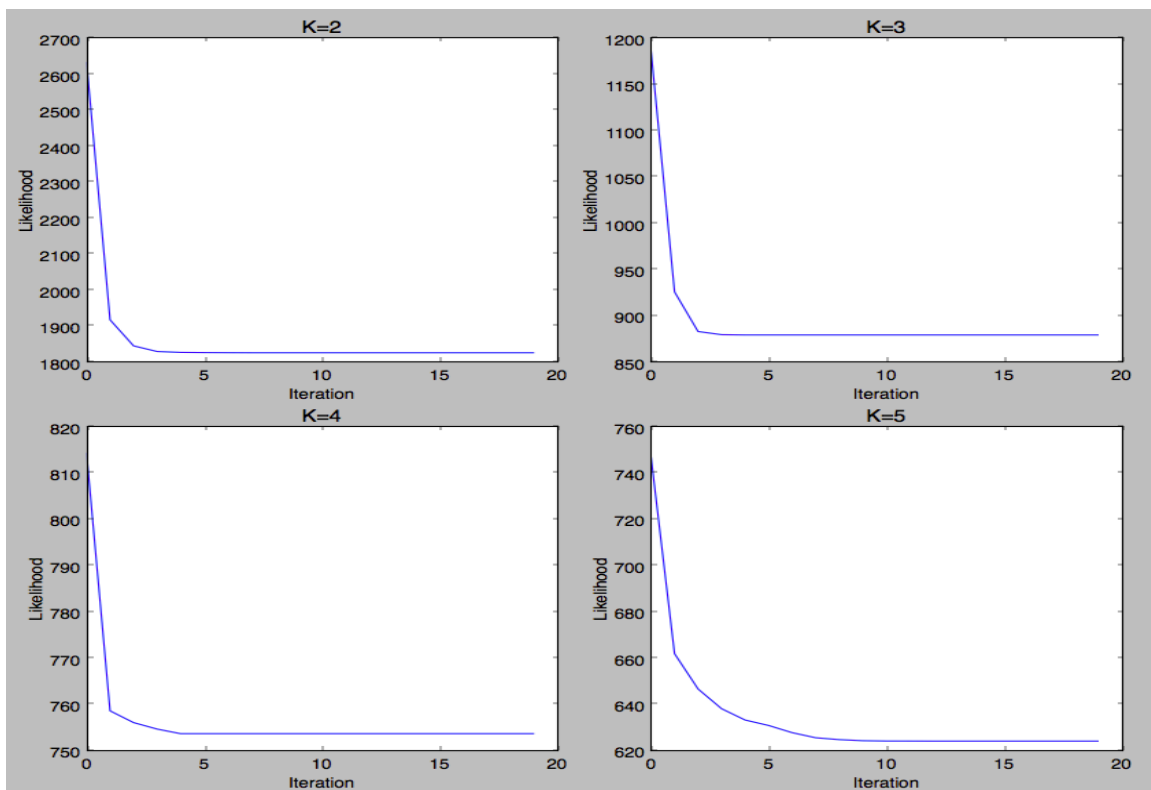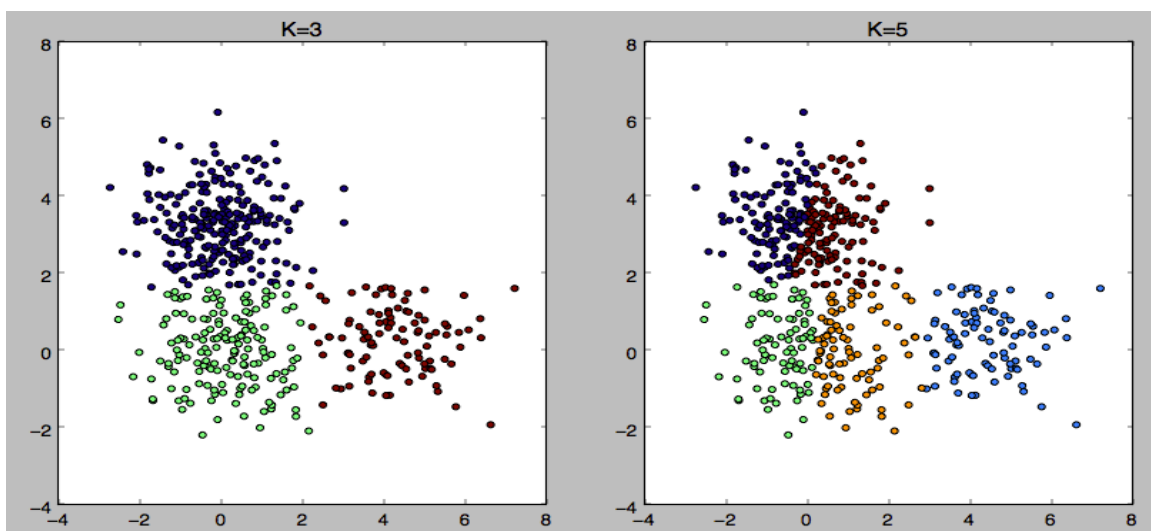Machine Learning for Data Science
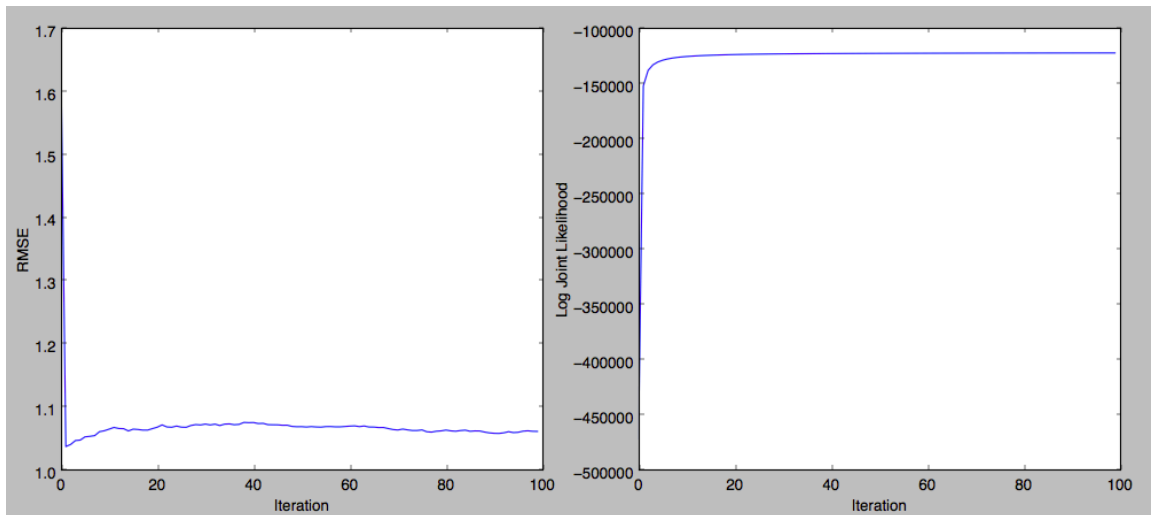Homework 4

Problem 1 (K-means):

Part 1:

Part 2:

Problem 2 (Matrix factorization):

Part 1:

Part 2:

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Movie:  Toy Story (1995)
Closest movies and distances:
Late Bloomers (1996)    1.14794202382
Charade (1963)    1.16282871534
Grand Day Out, A (1992)    1.23874046875
Cyrano de Bergerac (1990)    1.28718412277
That Old Feeling (1997)    1.31197179638

Movie:  Shawshank Redemption, The (1994)
Closest movies and distances:
Glory (1989)    0.937425805019
Braveheart (1995)    1.11681393521
One Flew Over the Cuckoo's Nest (1975)    1.14166525586
When Harry Met Sally... (1989)    1.15747307315
Schindler's List (1993)    1.16829537359

Movie:  Twister (1996)
Closest movies and distances:
Independence Day (ID4) (1996)    1.19291163438
Jurassic Park (1993)    1.4017382302
Time to Kill, A (1996)    1.40372080155
Mrs. Winterbourne (1996)    1.44450258066
Stargate (1994)    1.47523422839
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Part 3:

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Centroid:   0
English Patient, The (1996)
Seven Years in Tibet (1997)
Willy Wonka and the Chocolate Factory (1971)
Shine (1996)
Walk in the Clouds, A (1995)
Seven (Se7en) (1995)
Ghost and the Darkness, The (1996)
Mr. Holland's Opus (1995)
Scream 2 (1997)
Primal Fear (1996)

Centroid:   1
Godfather, The (1972)
Boot, Das (1981)
Three Colors: Red (1994)
Pulp Fiction (1994)
Shawshank Redemption, The (1994)
Apocalypse Now (1979)
One Flew Over the Cuckoo's Nest (1975)
Silence of the Lambs, The (1991)
Secrets & Lies (1996)
12 Angry Men (1957)

Centroid:   2
Crumb (1994)
Secrets & Lies (1996)
Night on Earth (1991)
Mother (1996)
Rosencrantz and Guildenstern Are Dead (1990)
Citizen Kane (1941)
Hoop Dreams (1994)
Wrong Trousers, The (1993)
Spawn (1997)
Close Shave, A (1995)

Centroid:   3
L.A. Confidential (1997)
Full Monty, The (1997)
Contact (1997)
Star Wars (1977)
Leaving Las Vegas (1995)
Gattaca (1997)
Raiders of the Lost Ark (1981)
Blues Brothers, The (1980)
Local Hero (1983)
Usual Suspects, The (1995)

Centroid:   4
Boot, Das (1981)
Close Shave, A (1995)
Pulp Fiction (1994)
Casablanca (1942)
One Flew Over the Cuckoo's Nest (1975)
Patton (1970)
Godfather, The (1972)
Schindler's List (1993)
Rear Window (1954)
Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb (1963)
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