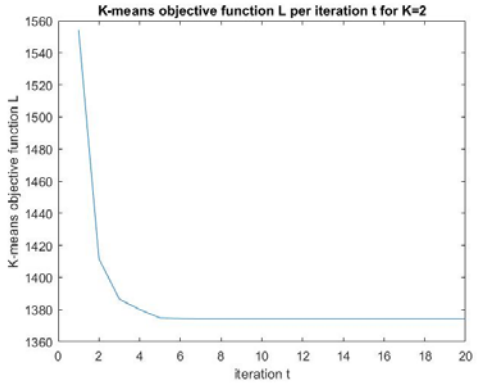
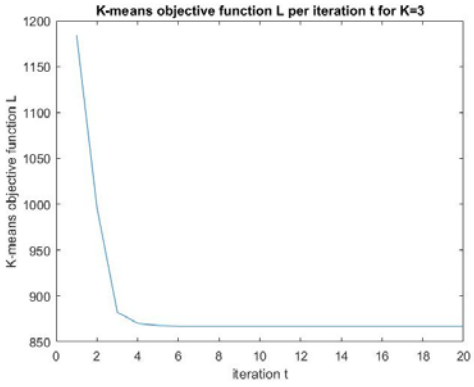
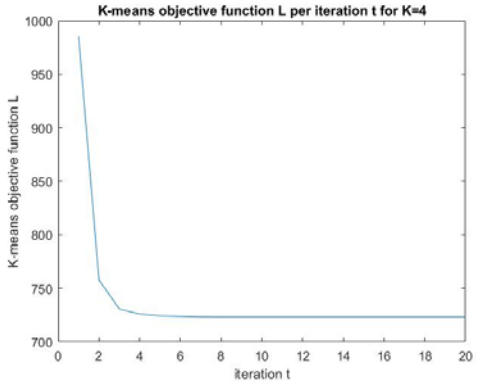
Youjia Zhang UNI: yz2797

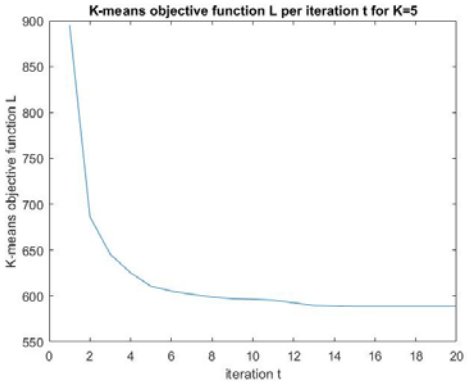
Problem 1

1.

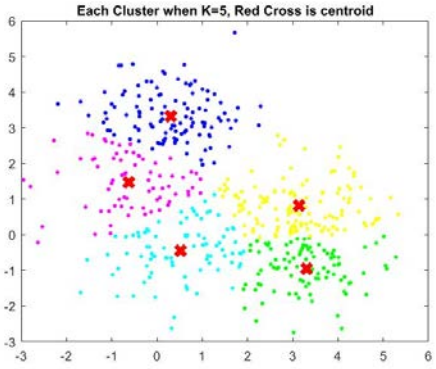


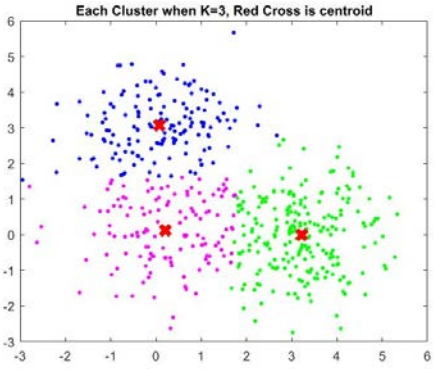






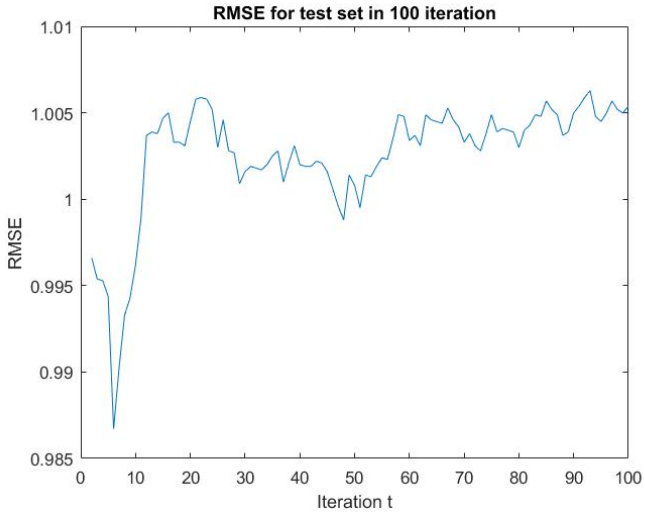
2.



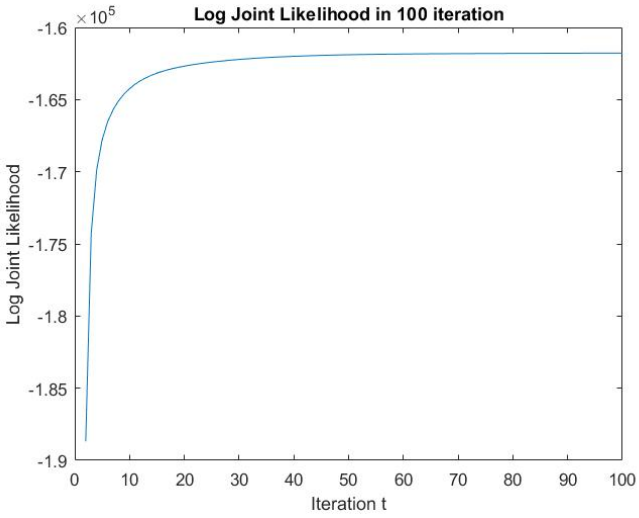


Problem 2:

1.



2.



3.

query movie: Lion King, The (1994)

1st nearest movie: Aladdin (1992), distance=0.28467

2nd nearest movie: Affair to Remember, An (1957), distance=0.30576

3rd nearest movie: Apollo 13 (1995), distance=0.37045

4th nearest movie: Princess Caraboo (1994), distance=0.39293

5th nearest movie: Firm, The (1993), distance=0.3969

query movie: Independence Day (ID4) (1996)

1st nearest movie: Twister (1996), distance=0.36079

2nd nearest movie: Jumanji (1995), distance=0.44217

3rd nearest movie: True Lies (1994), distance=0.45672

4th nearest movie: Star Trek: Generations (1994), distance=0.67864

5th nearest movie: Jurassic Park (1993), distance=0.75172

query movie: Ghost and the Darkness, The (1996)

1st nearest movie: Bed of Roses (1996), distance=0.51071

2nd nearest movie: Great Race, The (1965), distance=0.55972
3rd nearest movie: Mrs. Winterbourne (1996), distance=0.56226
4th nearest movie: Replacement Killers, The (1998), distance=0.59014
5th nearest movie: Courage Under Fire (1996), distance=0.59998

4.
Centroid of Cluster 1 on u:
0.55938 0.38346 -0.78055 -0.071563 -1.3918 -0.028036 0.0077215 -0.9129 0.70161 -8.2304e-08
Number of Data in Cluster1=109
1st nearest movie: Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb (1963), dot product=4.6669
2nd nearest movie: Lawrence of Arabia (1962), dot product=4.6295
3rd nearest movie: Fargo (1996), dot product=4.5977
4th nearest movie: Lone Star (1996), dot product=4.5793
5th nearest movie: Godfather, The (1972), dot product=4.564
6th nearest movie: Close Shave, A (1995), dot product=4.5611
7th nearest movie: Casablanca (1942), dot product=4.5489
8th nearest movie: One Flew Over the Cuckoo's Nest (1975), dot product=4.5424
9th nearest movie: Wings of Desire (1987), dot product=4.5203
10th nearest movie: Chinatown (1974), dot product=4.5139
Centroid of Cluster 2 on u:
0.58967 -0.18447 -0.77562 -0.10516 -1.4503 0.045209 0.46376 -0.52584 0.29408 -0.082728
Number of Data in Cluster2=88
1st nearest movie: Star Wars (1977), dot product=4.6005
2nd nearest movie: Wrong Trousers, The (1993), dot product=4.4059
3rd nearest movie: Empire Strikes Back, The (1980), dot product=4.3328
4th nearest movie: Shawshank Redemption, The (1994), dot product=4.3319
5th nearest movie: Usual Suspects, The (1995), dot product=4.3286
6th nearest movie: Wallace & Gromit: The Best of Aardman Animation (1996), dot product=4.3285
7th nearest movie: Close Shave, A (1995), dot product=4.3217
8th nearest movie: Princess Bride, The (1987), dot product=4.3123
9th nearest movie: L.A. Confidential (1997), dot product=4.3012
10th nearest movie: Good Will Hunting (1997), dot product=4.2831
Centroid of Cluster 3 on u:
0.70656 0.25552 -0.50577 -0.047188 -1.4165 -0.45755 0.62846 -0.92502 0.67252 0.0084756
Number of Data in Cluster3=85
1st nearest movie: Citizen Kane (1941), dot product=4.675
2nd nearest movie: Godfather, The (1972), dot product=4.5663
3rd nearest movie: Casablanca (1942), dot product=4.558
4th nearest movie: Rear Window (1954), dot product=4.5139
5th nearest movie: Wrong Trousers, The (1993), dot product=4.5055

6th nearest movie: Psycho (1960), dot product=4.5029
7th nearest movie: North by Northwest (1959), dot product=4.5023
8th nearest movie: Chinatown (1974), dot product=4.4986
9th nearest movie: Pulp Fiction (1994), dot product=4.4915
10th nearest movie: Wallace & Gromit: The Best of Aardman Animation (1996), dot product=4.4753
Centroid of Cluster 4 on u:
1.0473 -0.24643 -0.94276 -0.055789 -1.2197 -0.28332 0.6552 -0.64837 -0.16064 0.35844
Number of Data in Cluster4=71
1st nearest movie: Titanic (1997), dot product=4.6944
2nd nearest movie: Shawshank Redemption, The (1994), dot product=4.5422
3rd nearest movie: Braveheart (1995), dot product=4.5322
4th nearest movie: Raiders of the Lost Ark (1981), dot product=4.417
5th nearest movie: Good Will Hunting (1997), dot product=4.3796
6th nearest movie: Schindler's List (1993), dot product=4.3795
7th nearest movie: Rock, The (1996), dot product=4.3691
8th nearest movie: As Good As It Gets (1997), dot product=4.3455
9th nearest movie: Great Escape, The (1963), dot product=4.3434
10th nearest movie: Fugitive, The (1993), dot product=4.3371
Centroid of Cluster 5 on u:
0.63833 0.050202 -0.74927 -0.4569 -1.0647 0.14292 0.29982 -0.674 0.8669 0.25023
Number of Data in Cluster5=65
1st nearest movie: Schindler's List (1993), dot product=4.6424
2nd nearest movie: Boot, Das (1981), dot product=4.4635
3rd nearest movie: Shawshank Redemption, The (1994), dot product=4.442
4th nearest movie: One Flew Over the Cuckoo's Nest (1975), dot product=4.4331
5th nearest movie: Godfather, The (1972), dot product=4.4263
6th nearest movie: Casablanca (1942), dot product=4.3989
7th nearest movie: Silence of the Lambs, The (1991), dot product=4.3255
8th nearest movie: It's a Wonderful Life (1946), dot product=4.3162
9th nearest movie: Henry V (1989), dot product=4.3142
10th nearest movie: Manchurian Candidate, The (1962), dot product=4.3081

5.
Centroid of Cluster 1 on v:
0.35692 0.10259 -0.45766 0.018288 -0.53316 -0.15264 0.25478 -0.45527 0.27032 0.019639
Number of Data in Cluster1=186
1st nearest movie: Lover's Knot (1996), distance=0.058503
2nd nearest movie: Substance of Fire, The (1996), distance=0.063826
3rd nearest movie: All Things Fair (1996), distance=0.065084
4th nearest movie: Turning, The (1992), distance=0.11445

5th nearest movie: Walking Dead, The (1995), distance=0.11562
6th nearest movie: Sprung (1997), distance=0.12303
7th nearest movie: Heavy (1995), distance=0.12385
8th nearest movie: Angela (1995), distance=0.12608
9th nearest movie: Pie in the Sky (1995), distance=0.13275
10th nearest movie: I Like It Like That (1994), distance=0.13382
Centroid of Cluster 2 on v:
0.12122 -0.082001 -0.14843 0.046755 -0.19426 -0.017731 0.078237 -0.10157 0.060863 0.072343
Number of Data in Cluster2=141
1st nearest movie: Temptress Moon (Feng Yue) (1996), distance=0.029511
2nd nearest movie: Venice/Venice (1992), distance=0.030362
3rd nearest movie: Further Gesture, A (1996), distance=0.034508
4th nearest movie: Homage (1995), distance=0.035302
5th nearest movie: Low Life, The (1994), distance=0.035302
6th nearest movie: Stefano Quantestorie (1993), distance=0.035302
7th nearest movie: Crude Oasis, The (1995), distance=0.035302
8th nearest movie: Hedd Wyn (1992), distance=0.035302
9th nearest movie: Lotto Land (1995), distance=0.035302
10th nearest movie: Every Other Weekend (1990), distance=0.035302
Centroid of Cluster 3 on v:
0.51677 0.23785 -0.67566 -0.3828 -1.4011 0.033604 0.20482 -0.8175 0.50169 0.2829
Number of Data in Cluster3=120
1st nearest movie: Maya Lin: A Strong Clear Vision (1994), distance=0.19744
2nd nearest movie: Smoke (1995), distance=0.20488
3rd nearest movie: 12 Angry Men (1957), distance=0.26086
4th nearest movie: Dial M for Murder (1954), distance=0.2646
5th nearest movie: Boy's Life 2 (1997), distance=0.27218
6th nearest movie: Manhattan Murder Mystery (1993), distance=0.27531
7th nearest movie: M*A*S*H (1970), distance=0.28354
8th nearest movie: To Catch a Thief (1955), distance=0.29025
9th nearest movie: Maltese Falcon, The (1941), distance=0.29305
10th nearest movie: Quiz Show (1994), distance=0.30048
Centroid of Cluster 4 on v:
0.72443 -0.19084 -0.42068 -0.13449 -0.56219 -0.1008 0.60892 -0.49468 -0.19545 0.11086
Number of Data in Cluster4=114
1st nearest movie: Swan Princess, The (1994), distance=0.049354
2nd nearest movie: Life with Mikey (1993), distance=0.10336
3rd nearest movie: Moonlight and Valentino (1995), distance=0.13119
4th nearest movie: Stag (1997), distance=0.162
5th nearest movie: Race the Sun (1996), distance=0.16399
6th nearest movie: Oliver & Company (1988), distance=0.17596

7th nearest movie: I Love Trouble (1994), distance=0.1834
8th nearest movie: Heavyweights (1994), distance=0.20403
9th nearest movie: Man of the House (1995), distance=0.23323
10th nearest movie: Trial by Jury (1994), distance=0.23788
Centroid of Cluster 5 on v:
0.71653 0.29775 -0.68575 0.05714 -0.97684 0.013932 0.012633 -0.77627 0.43005 -0.16825
Number of Data in Cluster5=113
1st nearest movie: Hear My Song (1991), distance=0.1273
2nd nearest movie: Purple Noon (1960), distance=0.13439
3rd nearest movie: Mrs. Dalloway (1997), distance=0.15924
4th nearest movie: Last Klezmer: Leopold Kozlowski, His Life and Music, The (1995), distance=0.16141
5th nearest movie: Month by the Lake, A (1995), distance=0.19073
6th nearest movie: Love and Other Catastrophes (1996), distance=0.19168
7th nearest movie: Star Maker, The (Uomo delle stelle, L') (1995), distance=0.19766
8th nearest movie: Maybe, Maybe Not (Bewegte Mann, Der) (1994), distance=0.20378
9th nearest movie: Blue Sky (1994), distance=0.21833
10th nearest movie: Celestial Clockwork (1994), distance=0.23359