TASK 4 OUTPUTS

feature space {HOG}; k =5

Applying CP decomposition on the hog_fd space to get 5 latent semantics (showing only top 10 image-weight pairs for each latent semantic)...

(4339, 900, 101)

Showing image-weight latent semantic

Latent semantic no. 0

image	907	-	weight	0.08111146004467022
image	816	-	weight	0.07592488869987997
image	735	-	weight	0.07458297701723804
image	826	-	weight	0.07380720903908039
image	900	-	weight	0.07254260686913609
image	853	-	weight	0.07232350843307524
image	880	-	weight	0.07216559248117042
image	868	-	weight	0.07201251807726869
image	904	-	weight	0.07130637842532174
image	926	-	weight	0.07110321038187759

Latent semantic no. 1

image	1346	-	weight	0.09103653179810903
image	1019	-	weight	0.09004931250344068
image	974	-	weight	0.08088912644786106
image	1326	-	weight	0.08034958134911825
image	1322	-	weight	0.08016298672227608
image	1040	-	weight	0.079354139867116
image	1133	-	weight	0.07682784503299218
image	1132	-	weight	0.07572188068060505
image	1271	-	weight	0.07512953527585116
image	1160	-	weight	0.07413072058919391

Latent semantic no. 2

image	267	-	weight	0.09512545323919329
image	405	-	weight	0.09435101912784769
image	386	-	weight	0.09390287251215791
image	416	-	weight	0.0938809535359209
image	336	-	weight	0.09342086037494984
image	320	-	weight	0.09279424087343924
image	270	-	weight	0.09250196213261028
image	273	-	weight	0.09098807581266792
image	323	-	weight	0.09085991240886046
image	268	-	weight	0.09010207333505754

Latent semantic no. 3

image	0	-	weight	0.0
image	1	-	weight	0.0
image	2	-	weight	0.0
image	3	-	weight	0.0
image	4	-	weight	0.0
image	5	-	weight	0.0
image	6	-	weight	0.0
image	7	-	weight	0.0
image	8	-	weight	0.0
image	9	-	weight	0.0

Latent semantic no. 4

image	99	-	weight	0.12343012089910918
image	119	-	weight	0.113955175449094
image	126	-	weight	0.11296824287606817
image	209	-	weight	0.11265964717862482
image	10	-	weight	0.11155714713370057
image	192	-	weight	0.10955555395796271
image	101	-	weight	0.10818386615418286
image	160	-	weight	0.10667367518297338
image	118	-	weight	0.10531173438164543
image	127	-	weight	0.10394753636656369

Showing feature-weight latent semantic

Latent semantic no. 0

feature	8	-	weight	0.007549630754166452

feature	2	-	weight	0.00595423867242357
feature	9	-	weight	0.004876533386956757
feature	0	-	weight	0.0034910158424980285
feature	6	-	weight	0.0022185874467824103
feature	4	-	weight	0.0018026862802200542
feature	1	-	weight	0.001068830578501311
feature	7	-	weight	0.0009374842411715104
feature	3	-	weight	0.0008517960973485152
feature	5	-	weight	0.0004925790177787824

Latent semantic no. 1

feature	8	-	weight	0.04963851572587758
feature	9	-	weight	0.02469073501264152
feature	0	-	weight	0.022037507451997087
feature	2	-	weight	0.010905327616988014
feature	6	-	weight	0.010074103096040085
feature	4	-	weight	0.0059968245325472255
feature	1	-	weight	0.004052369987882715
feature	7	-	weight	0.003110254464974297
feature	3	-	weight	0.002719720839297956
feature	5	-	weight	0.0025048156093888533

Latent semantic no. 2

feature	6	-	weight	0.048800124354059636
feature	2	-	weight	0.04411181810575204
feature	8	-	weight	0.02063216147877101
feature	4	-	weight	0.018797344186872428
feature	7	-	weight	0.012806522536272284
feature	1	-	weight	0.010428859507466132
feature	9	-	weight	0.010307130087569017
feature	3	-	weight	0.009195905613205966
feature	0	-	weight	0.008870861405955778
feature	5	-	weight	0.008510430621636892

Latent semantic no. 3

feature	7	-	weight	-0.0019155654440250278
feature	0	-	weight	-0.002028570660696829
feature	3	-	weight	-0.002501000099195123
feature	1	-	weight	-0.0026610887109967925
feature	5	-	weight	-0.0027188293908599523
feature	9	-	weight	-0.0035005063430378707
feature	8	-	weight	-0.003522210459913319
feature	4	-	weight	-0.004011460630010844
feature	2	-	weight	-0.004941368831494877
feature	6	-	weight	-0.005508597094202737

Latent semantic no. 4

feature	2	-	weight	0.04252946023363
feature	4	-	weight	0.04002516676922186
feature	6	-	weight	0.0392285000269574
feature	8	-	weight	0.02561896078346682
feature	9	-	weight	0.01319754040149297
feature	7	-	weight	0.012705985143148904
feature	0	-	weight	0.010993180206407056
feature	5	-	weight	0.010552070705402256
feature	1	-	weight	0.010362460432408627
feature	3	-	weight	0.00967822121416682

Showing label-weight latent semantic

Latent semantic no. 0

label	3	-	weight	0.9999999999999998
label	0	-	weight	0.0
label	1	-	weight	0.0
label	2	-	weight	0.0
label	4	-	weight	0.0
label	5	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0
label	9	-	weight	0.0

Latent semantic no. 1

label	5	-	weight	1.0000000000000002
label	0	-	weight	0.0
label	1	-	weight	0.0
label	2	-	weight	0.0
label	3	-	weight	0.0
label	4	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0
label	9	-	weight	0.0

Latent semantic no. 2

label	1	-	weight	1.0000000000000007
label	0	-	weight	0.0
label	2	-	weight	0.0
label	3	-	weight	0.0
label	4	-	weight	0.0
label	5	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0
label	9	-	weight	0.0

Latent semantic no. 3

label	94	-	weight	0.9999999999999996
label	0	-	weight	0.0
label	1	-	weight	0.0
label	2	-	weight	0.0
label	3	-	weight	0.0
label	4	-	weight	0.0
label	5	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0

Latent semantic no. 4

label	0	-	weight	1.000000000000001
label	1	-	weight	0.0
label	2	-	weight	0.0
label	3	-	weight	0.0
label	4	-	weight	0.0
label	5	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0
label	9	-	weight	0.0

feature space {RESNET}; k =5

Applying CP decomposition on the resnet_fd space to get 5 latent semantics (showing only top 10 image-weight pairs for each latent semantic)...

(4339, 1000, 101)

Showing image-weight latent semantic

Latent semantic no. 0

image	1290	-	weight	0.0847666356145715
image	1129	-	weight	0.08242073414148895
image	1241	-	weight	0.0799569904030165
image	1027	-	weight	0.07888186233401384
image	1032	-	weight	0.07819874598713544
image	1146	-	weight	0.07783171600166511
image	1319	-	weight	0.07689988509234584
image	1071	-	weight	0.07607247416023259
image	1149	-	weight	0.07491172495114765
image	1168	-	weight	0.07466720796517286

Latent semantic no. 1

image	601	-	weight	0.10862382857157002
image	915	-	weight	0.10575256453778187
image	862	-	weight	0.09385978566837806
image	705	-	weight	0.09303474894942482
image	728	-	weight	0.0921519112583642

image	596	-	weight	0.09016155175809748
image	597	-	weight	0.08855319519790888
image	929	-	weight	0.08835072233206592
image	864	-	weight	0.08819019589610667
image	594	-	weight	0.0881838708262975

Latent semantic no. 2

image	506	-	weight	0.13433054492260182
image	501	-	weight	0.13413660168003763
image	497	-	weight	0.13375387228369973
image	456	-	weight	0.13096310537673048
image	457	-	weight	0.1304789532954686
image	512	-	weight	0.12802286059823154
image	462	-	weight	0.12420033689094621
image	448	-	weight	0.1235398627436162
image	498	-	weight	0.1215968376811444
image	439	-	weight	0.12058139457207157

Latent semantic no. 3

image	1530	-	weight	0.23953015077427184
image	1494	-	weight	0.2340086805930691
image	1499	-	weight	0.22285196267954438
image	1557	-	weight	0.21137096089525387
image	1533	-	weight	0.2085891111888422
image	1544	-	weight	0.20675346537063063
image	1550	-	weight	0.20596264953444252
image	1496	-	weight	0.20440402810113564
image	1554	-	weight	0.18876245522883064
image	1500	-	weight	0.18062404390157027

Latent semantic no. 4

image	4152	-	weight	0.24625882198147067
image	4138	-	weight	0.21401374422251226
image	4115	-	weight	0.18803437036733134
image	4118	-	weight	0.1869596796211395
image	4088	-	weight	0.18401510782266442
image	4120	-	weight	0.17782839590955185
image	4144	-	weight	0.17605394821662454
image	4093	-	weight	0.17602132979364954
image	4140	-	weight	0.1734184098438752
image	4169	-	weight	0.1731929013678939

Showing feature-weight latent semantic

Latent semantic no. 0

feature	0	-	weight	0.0011997027067116015

Latent semantic no. 1

feature	0	-	weight	0.0015211236139400807

Latent semantic no. 2

feature	0	-	weight	0.0016093060607550852

Latent semantic no. 3

feature	0	-	weight	0.00044586909382056893

Latent semantic no. 4

feature	0	-	weight	0.0012761928039360549

Showing label-weight latent semantic

Latent semantic no. 0

label	5	-	weight	0.9999999999999992
label	0	-	weight	0.0
label	1	-	weight	0.0
label	2	-	weight	0.0
label	3	-	weight	0.0
label	4	-	weight	0.0
label	6	-	weight	0.0
label	7	-	weight	0.0
label	8	-	weight	0.0
label	9	-	weight	0.0

Latent semantic no. 1

label	3	-	weight	1.0000000000000002
label	0	-	weight	0.0
label	1	-	weight	0.0
label	2	-	weight	0.0

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label    4          -          weight   0.0
label    5          -          weight   0.0
label    6          -          weight   0.0
label    7          -          weight   0.0
label    8          -          weight   0.0
label    9          -          weight   0.0
Latent semantic no. 2
label    2          -          weight   0.9999999999999998
label    0          -          weight   0.0
label    1          -          weight   0.0
label    3          -          weight   0.0
label    4          -          weight   0.0
label    5          -          weight   0.0
label    6          -          weight   0.0
label    7          -          weight   0.0
label    8          -          weight   0.0
label    9          -          weight   0.0
Latent semantic no. 3
label    12         -          weight   1.0000000000000002
label    0          -          weight   0.0
label    1          -          weight   0.0
label    2          -          weight   0.0
label    3          -          weight   0.0
label    4          -          weight   0.0
label    5          -          weight   0.0
label    6          -          weight   0.0
label    7          -          weight   0.0
label    8          -          weight   0.0
Latent semantic no. 4
label    94         -          weight   1.0000000000000002
label    0          -          weight   0.0
label    1          -          weight   0.0
label    2          -          weight   0.0
label    3          -          weight   0.0
label    4          -          weight   0.0
label    5          -          weight   0.0
label    6          -          weight   0.0
label    7          -          weight   0.0
label    8          -          weight   0.0
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