CSI2120 - Project Part 2

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List of functions created:

- 1) (similaritySearch queryHistFilename imageDatasetDir)
- 2) (result qHist dataHist dpath numofpixels)
- 3) (read-file-as-list filename)
- 4) (getHist hist numpix)
- 5) (numofpixels hist)
- 6) (compare normalizedHist1 normalizedHist2)
- 7) (delete-every-other lst)
- 8) (group-pairs lst)
- 9) (top-5-pairs pairs-list)
- 10) (printfilepair lstofpairs)

Outputs for query images:

Query image name	List of 5 most similar images
q00.ppm	'("1144.jpg" "3806.jpg" "3714.jpg" "3756.jpg" "2462.jpg")
q01.ppm	'("3588.jpg" "2536.jpg" "3553.jpg" "1875.jpg" "2592.jpg")
q02.ppm	'("1091.jpg" "3005.jpg" "850.jpg" "3728.jpg" "1090.jpg")
q03.ppm	'("1255.jpg" "3532.jpg" "4507.jpg" "692.jpg" "4737.jpg")
q04.ppm	'("1799.jpg" "848.jpg" "4261.jpg" "1800.jpg" "1937.jpg")
q05.ppm	'("2223.jpg" "3091.jpg" "2550.jpg" "2883.jpg" "2901.jpg")
q06.ppm	'("2278.jpg" "2224.jpg" "1108.jpg" "1917.jpg" "3806.jpg")
q07.ppm	'("2377.jpg" "2379.jpg" "2079.jpg" "1653.jpg" "1896.jpg")
q08.ppm	'("2587.jpg" "1837.jpg" "2586.jpg" "1515.jpg" "1217.jpg")
q09.ppm	'("2839.jpg" "3414.jpg" "2617.jpg" "4363.jpg" "4816.jpg")
q10.ppm	'("2976.jpg" "2971.jpg" "3108.jpg" "2194.jpg" "4118.jpg")
q11.ppm	'("3017.jpg" "3660.jpg" "2411.jpg" "1010.jpg" "2067.jpg")
q12.ppm	'("3135.jpg" "3133.jpg" "2447.jpg" "4429.jpg" "2964.jpg")
q13.ppm	'("3225.jpg" "2083.jpg" "2082.jpg" "2078.jpg" "2607.jpg")
q14.ppm	'("2193.jpg" "3108.jpg" "3318.jpg" "4028.jpg" "3085.jpg")
q15.ppm	'("4756.jpg" "2462.jpg" "3756.jpg" "908.jpg" "3675.jpg")

References

- 1) Racket. 4.10 pairs and lists. (n.d.). https://docs.racket-lang.org/reference/pairs.html#%28def._%28%28lib._racket%2Fprivate%2Flist..rkt%29._sort%29%29
- 2) The lecture notes were also used as a guide and reference