- Idea / implementation of **a 'toy' CBIR**
- In-class assignment (groups of up to 3 students – same groups from other assignments)
- Upload a short summary (up to 3 pages) by 26th February at 18:00
- Presentation up to 5 minutes, by 26th February at 18:00

- Upload the implementation (if done)

- This assignment's mark is the 25% of the course mark

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- Motivation:
  - Propose an application of CBIR in a real-world domain
- State of the art:
  - Find a research paper for smart histogram comparison
    - Color space
    - Descriptor generation
    - Distance measurement
- Implementation of the toy CBIR
  - A ‘smart’ Histogram descriptor + distance
  - An additional descriptor + distance, eg: Harris+HOG+Euclidean distance
  - **How to combine both descriptors**
  - Implement additional CBIR processes (indexing and searching)

- Present work documentation
  - An up to 3 pages report
  - A brief (5 min) presentation for the class on March 8th (15:00-17:00)

- Some image testing datasets:
  - https://icu.ee.ethz.ch/research/datsets.html (ZuBuD)
  - Index of /groundtruth (washington.edu)
  - https://www.kaggle.com/theaayushbajaj/cbir-dataset/notebooks
  - http://lear.inrialpes.fr/people/jegou/data.php
  - http://imageclef.org/2009/PhotoAnnotation
  - http://press.liacs.nl/mirflickr/mirdownload.html

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Assignment	Task	Good		Bad
Task	**Proposal of CBIR application in a real problem**	2,5 pts Pupil introduces the problem to be solved and justifies usage of CBIR	1,25 pts Pupil doesn't introduce a problem sufficiently or the usage of CBIR is not well justified	0 pts Pupil doesn't suggest any problem for using a CBIR
Task	**Technical proposal of toy CBIR applied to a real problem based in Literature**	2 pts Pupil explains the proposed CBIR and provides IT design (descriptor and distance)	1,25 pts Pupil explains the proposed CBIR only in textual mode	0 pts Pupil doesn't propose anything
Task	**Implementation of the 'smart' Histogram descriptor**	0,75 pts Pupil implements the histogram descriptor		0 pts Pupil doesn't implement Histogram descriptor
Task	**Implementation of the 'smart' Histogram distance**	0,75 pts Pupil implements the histogram distance		0 pts Pupil doesn't implement Histogram distance
Task	**Implementation of a secondary descriptor and distance**	1 pt Pupil implements an additional descriptor for the CBIR		0 pts Pupil doesn't implement any additional descriptor

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Assignment	Task	Good		Bad
Task	**Implementation of CBIR processes (store the indexes and search)**	1 pt Pupil impements the CBI complete functionalities allowing add images to index and search		0 pts Pupil doesn't propose any additional descriptor/distance to CBIR
Documents	**Documentation**	1 pt Pupil provides code and documentation with enough detail	0,5 pt Pupil documentation doesn't provide enough details	-9 pts Pupil doesn't provide documentation or code
Documents	**Presentation**	1 pt Pupil presents his work with enough detail	0 pts Pupil doesn't present the assignment	-9 pts Pupil doesn't assist to assignment presentations