Project Specification

Note:
   This is meant to be a group work. Each group may have up to three members.

Deadline: the last lecture is the demo session for each group

1. a disk/cd containing your source code and executable file
2. you have to explain your implementation details during the demo session
3. a README file describing some technical details
4. GUI is REQUIRED.

Missing any of the above items will cost you 10% of the score allocated to this project.

indexing phase:
   three types of data need to be handled (only gray scale images/videos are considered):
1. text: words present in titles and descriptions for each image/video should be indexed by their frequencies.
2. image: Use the 16-bin histogram of the original and edge map of each image as the index for each image.
3. video: your system processes a sequence of input images simulating a raw video, e.g., 5 images from one clip and there are more than one clip in the input "raw video". Use difference of histogram to detect scene cuts for the input image sequence and three images for each sequence are indexed as the representation of each clip: the first, middle, and the last. Use the 16-bin histogram of the original and edge map of each image as the index for each representative frame.

query phase:
   Find top matching images/videos for an image posed by users based on the similarities of the given query image I and/or keyword(s). The distance is determined by the corresponding
1. two 16-bin histograms: intensity and edge; and/or
2. matching keywords based on *edit distance* and saved frequencies.