Alexandria University
Faculty of Engineering
Comp. & Comm. Engineering

جامعة الاسكندرية
كلية الهندسة
برنامج هندسة الحاسب والاتصالات

Assignment 1: Color Based Image Classification

Given a new image, you are required to answer the question "The image belongs to which of these classes?"

To answer the question you are given training sets from each class and separate test sets. You should use the following approach:

1. Construct Color Histograms of training images. Try different color spaces as well
2. For every test image compare the color histogram to the training ones. Return the label of the class that produced the closest image from the training.
3. Report the accuracy of your method in the form of confusion matrix.
4. Report which classes produced the most ambiguous results and why?
5. Report which classes are the most discriminated and why?
6. Suggest ways to improve your results.

Notes

- You should deliver your source code
- You should deliver a report that contains your work and use examples and comments to describe your results.
- You should work in groups of 3 students
- TEAM WORK is a must (all the group members will be discussed)

Submission Instructions

- Send your files (report ,code) to multimediasubmissions@gmail.com
- Email Subject: [Assignment 1]
- Email Body: name and ID (for the three students)
- Attachment: Assig_1_[ID].zip (ID for any student in the team)

Policies

- Late submission (for one week only) is accepted after due date with 50% penalty
- **Detecting cheating will void the grade completely for both**