

Abstract

Expanding variety of information technology has many developed various seeking methods of content based, that is system Content Based image retrieval (CBIR) which is seeking mechanism of query image, this caused seeking of image based on text had not effective again.

This final project performs Content-based Image Retrieval (CBIR) system, to get image feature used extractor feature that is color histogram for extract color feature, fourier descriptor for extract shape feature and gabor filtering for extract texture feature. The first step is user input the image query, then the image will be extracted using color histogram, fourier descriptors and gabor filtering so that got the color feature, shape feature and the texture feature. calculate level of similarity with method similarity, that is cosine distance between image query with image database. This system using four image classes that is Apple, Cup, Face And Rose, which size 256 x 256 pixels, the similarity value can be chosen from 100% to 0% according to user's wish. To bound the image presented, the system will provide the threshold value that is 10, 20 and 30.

The result from this final task is an application that can be used in course of image seeking and analyze how accurate is the CBIR application if using color histogram, fourier descriptors and gabor filtering as the image feature extracting.

Keywords: *Content Based Image Retrieval, Color Histogram, Fourier Descriptors, Gabor Filtering, Cosine distance*