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## Improving Image Retrieval Through a Collection of Fast and Simple Visual Features Extraction

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**Abstract:** With the huge amount of images and other multimedia components that are continuously produced, uploaded and exchanged through the Internet, there is a continuous need to find effective methods to quickly and accurately classify and retrieve images. In this paper, we experimented a large set of feature extraction methods with fast and simple computation approaches. Some of those methods were proposed in different areas and domains and we thought of evaluating their ability in enhancing the image retrieval process. Several low-level image features are selected as part of our image retrieval system. Examples of feature extraction methods used include features related to RGB and HSV colour schemes, color and texture features and finally features collected through the open source Mazda software. Based on conducted experiments, we proposed method for extracting features with less computation time and improved results in terms of retrieving accuracy. Similarity measures such as: Euclidean, Chebyshev and Manhattan were also used to measure distances between subject image and database images. A dataset of 1000 images from COREL database is used and classified into 10 different categories. Precision and recall metrics are used to evaluate the performance of retrieval process. The final results showed a good qualified image retrieval system that is capable in retrieving a good number of relevant images using color and texture features with normalized RGB histogram. Retrieving precision and recall were 78% and 51% respectively. In terms of similarity measures, Euclidean is shown to be the best of those evaluated for image classification then Chebyshev and finally Manhattan.