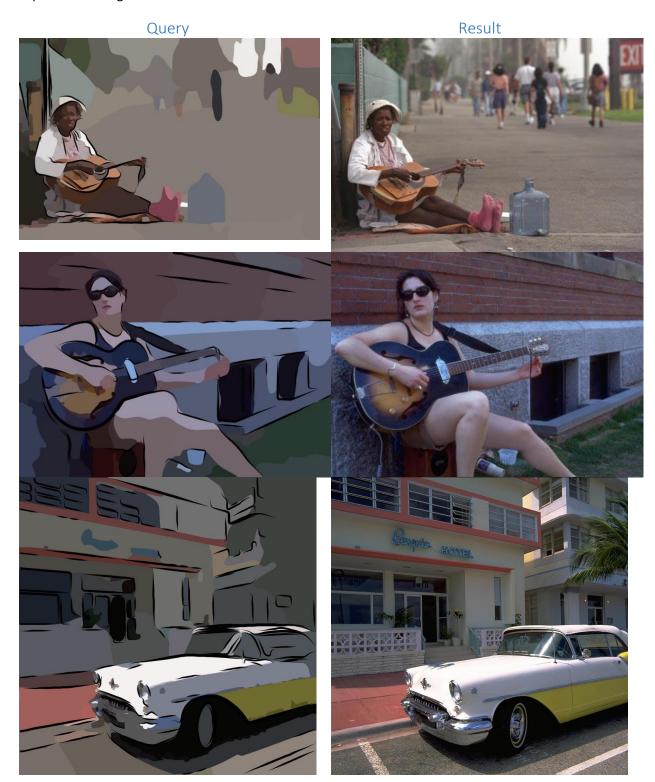# Multi Resolution Query

Implement the multi resolution image querying system on a data base of images with query taken as the output of the assignment 1.

Query	Result

Pre-Processing

Image Resize: We resize all the data base images as well as the query image to the same size 128 x 128.

Color Space: We choose RGB color scheme to perform the decomposition.

Truncation: Truncate the "harr wavelet" coefficients to improve the discriminatory power of the metric, considering only the significant features and removing the fine details. This turned out to 60 for the database and 40 for the queries. This details are taken from paper.

Quantization: Quantize the details to remove the features precise magnitude and retain just their presence in the image. I.e. replace positive feature by +1 and negative feature by -1 in decomposed, truncated wavelet.

Processing

Score

We assign score equal to second norm of the difference of average component of harr wavelet and keep subtracting it whenever we find matching component in query and database.

The picture with minimum score is our answer. This also provides a ranking mechanism.