You should write algorithm NET/C# to find similar images.

For example:



Quality requirements:

Q1 You should develop NET class library with API, allowing similarity validation for a) given pair of images, returning true/false statemement; b) for given set of images, returning similar images;

Q2 Each entry point should support similarity validation options. Minimum set of options include : a) error tolerance (threshold); b) type of validation : geometrical matching (means here pixels equality with given threshold) or perceptual matching (means here "looks the same" with given threshold); c) type of validation algortihm to use from predefined set of algorithms.

Q3 As minimum 2 similarity validation algorithms should be implemented. System design should be extendable to add additional similarity validation algorithms without modification of core logic and API.

Q4 Your API thould be thread safe;

Q5 Your solution should be optimized by speed and memory usage;

Q6 Unit tests should be developed, using nunit with good coverage (>=80%).

Q7 You should provide example of API usage for given set of images. You are free to add other pictures as well.

Constraints

C1 You should write original code, avoiding usage of any third party libraries.

Please, provide read me file, describing your design approach, strong and week features, possible ways to impove.