CMP2090M

Object-Oriented Programming Assignment Report

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1. Introduction

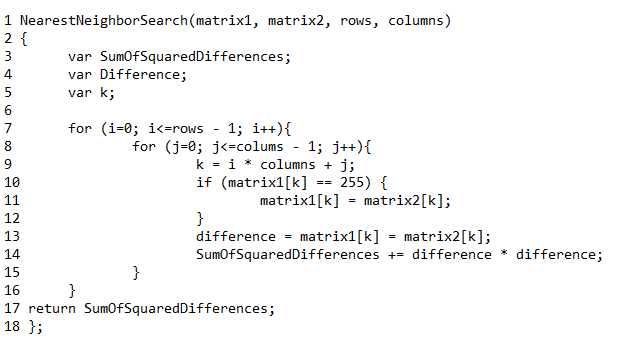
Put the introduction to your report here. In total, the report should be no more than **4 pages** using this template file (not modified). Submit as a Word (\*.docx) or PDF document. Presentation penalties may be applied if these instructions are not followed.

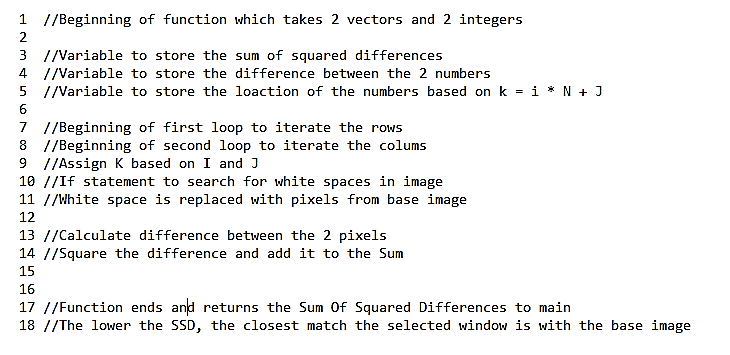
2. Programme Structure

Describe the structure of your programme here (in terms of classes, methods, etc.), and why you chose to do this.

3. NNS Algorithm

Below is the pseudocode for my NNS algorithm. I also provide a line by line description of my algorithm. I chose to use a Moving-Window SSD algorithm to solve the problem given. I chose to use this algorithm because of its ability to take into account a window of a certain size and compare it to a reference image. It then provides a number based on the similarity of the 2 matrices, the lower the number is, the closer the 2 matrices, the more similar they are. With a result of 0 being an exact match. My algorithm uses a window the same size as Wally’s reference image and iterates through the base image, giving each area a SSD. It then passes these back to the main function which will record which positioning of the moving window gave the n nearest fit for to the reference of Wally.





4. Results

In this section detail the output of your programme: use pictures to illustrate these where possible.

4.1 Best matching

What is the best match to the provided template image? Have you found Wally?

4.2 N-best list

Extension task: describe the results of your programme to identify the (ranked) *n* best matching images (where *n* can be provided at run-time).

5. Discussion & Conclusion

Provide a discussion of your results (what worked well/badly and why)

References

If you use any references, place them here, ensuring you follow proper citation guidelines.