CS 150 Lecture 18 Exercises

Complete each of the exercises below and upload to Canvas before the deadline.

A. Pointers & Graphics

Open **posterize.cpp** where you'll find a program that will process a digital picture and save a posterized version of the picture. If you wish to use your own picture, upload it into the images folder. Otherwise, you can use one of the pictures I've provided. Once you are finished, show me a screenshot of your code and the picture both before and after posterization.

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| Copy and paste a screenshot of source code for posterize.cpp |

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| Copy and paste a screenshot your original picture |

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| Copy and paste a screenshot your posterized picture |

B. Pointers & Structures

Open **grayscale.cpp** where you'll find a program that will process a digital picture and save a black&white version of the picture. Unlike the posterization program, this time you'll use a **Pixel** structure along with the **reinterpret\_cast** instruction. Run the program once using **average**, and rename the output picture to **average.png**. Then change to using the **luminance** procedure and run it again. Show me a screenshot of your code (the part you added) and the picture after processing using method 1 (average) and method 2 (luminance).

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| Copy and paste a screenshot of source code for grayscale.cpp (only the part you added) |

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| Copy and paste a screenshot of your "gray scaled" picture (average) |

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| Copy and paste a screenshot of your "gray scaled" picture (luminance) |