

Coursework COE 351- Object Oriented Programming

Due date: 15/11/2019.

Give the files to your class rep. to send them to me before noon.

In this exercise, you will write a program to decode and display an image. The file `picture.txt` contains numerical data that encodes an image. The first few lines (and the last) are as follows:

```
174 199
63 3 55 3 6 0 50 3
63 3 53 3 4 0 3 1 1 0 50 3
63 3 52 3 2 0 2 1 1 0 3 1 1 0 50 3
...
-1
```

The first line contains a pair of numbers that are the image's width and height respectively. Each subsequent line, except the last, consists of a set of (count, color) pairs. Each distinct color value stands for a particular pixel color within the image. The count value specifies how many consecutive pixels of the associated color should be plotted. So the example above specifies that the first line of the image consists of 63 pixels of color 3, followed by a further 55 pixels of color 3, then 6 pixels of color 0, and 50 more of color 3. The sum of the count values in each line of the input file is equal to the width of the image. The first count on the final line of the file is negative (out of bounds) value, indicating the end of the image.

Write a program to read the contents of the file `picture.txt` and display the image it represents.