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CA Assignment-2

1. Logic of code.

→ Just the image is taken from current directory with name "test.png". Then it is converted to grayscale and then checks if it is 208 * 208 pixels. If not then resizes it. Now, image is divided into 8 * 8 pixel squares so that they have 26 tiles.

Now, user can click on any tile and the tile is rotated by 90 degrees and this actions is logged to a list "movements".

After user has finished rotating the image. The code uses Huffman coding to compress recorded movements of tile rotations.

The compressed log is then printed on the terminal.

2. Calculation of encoding and storage efficiency for each movement assuming 8 bits/character.

→

Original log takes : 56 bits.
For encoded movements the log takes: 28 bits.

Original	Encoded.
Rotation : 32 bits	Rotation : 16 bits
Row: 12 bits	Row = 6 bits
Column : 12 bits	Column : 6 bits.
Total : 56 bits	Total : 28 bits.