



EDB — PEM Fullstack Developer Exercise (India/Remote)

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PEM Fullstack Developer Exercise (India/Remote)

::Prompt::

Image rotation

Problem statement

Grandmother has an old cell phone that can only take pictures in PBM format. She is wanting you to write an application in Python for her that will rotate a given arbitrary PBM image 90 degrees clockwise and output the result. Grandmother also prefers that we work from first principles and do not use any third-party libraries to help.

If possible, Grandmother has a feature request, and would like to be able to rotate her PBM images clockwise or counterclockwise by an arbitrary number of degrees.

PBM

[PBM] (<https://en.wikipedia.org/wiki/Netpbm>) is an image format that can be represented in ascii and is easily manipulated.

an example PBM file could look like this:

...

P1

This is an example bitmap of the letter "J"

6 10

0 0 0 0 1 0

0 0 0 0 1 0

0 0 0 0 1 0

0 0 0 0 1 0

0 0 0 0 1 0

0 0 0 0 1 0

1 0 0 0 1 0

0 1 1 1 0 0

0 0 0 0 0 0

0 0 0 0 0 0

...

We can assume that Grandmother's phone uses PBM files with the magic number `P1` only. Alas, grandmother's phone doesn't always generate square images, it can create rectangular images as well.

Deliverables

An application in Python that will accept a filename, and the number of degrees to rotate, and will write the resultant image in P1 PBM format to disk. As we do not want to startle Grandmother, the application should not panic in any circumstances.