

Task 1 - Supply Bot

Task 1.2 - Fill In

Introduction

The objective of this task is to fill in a missing sector of the inner black ring.

Problem Description

Remember that all file and folder paths in your program should be relative. The images to work on are present in “**Images**” folder. All your output files must be generated in “**Generated**” folder. Write your code in the placeholder file, “*main.py*” which can be found in “**Codes**” folder.

The images present in the “**Images**” folder are:

- *image_1.png*
- *image_2.png*
- *image_3.png*

Consider the following image:

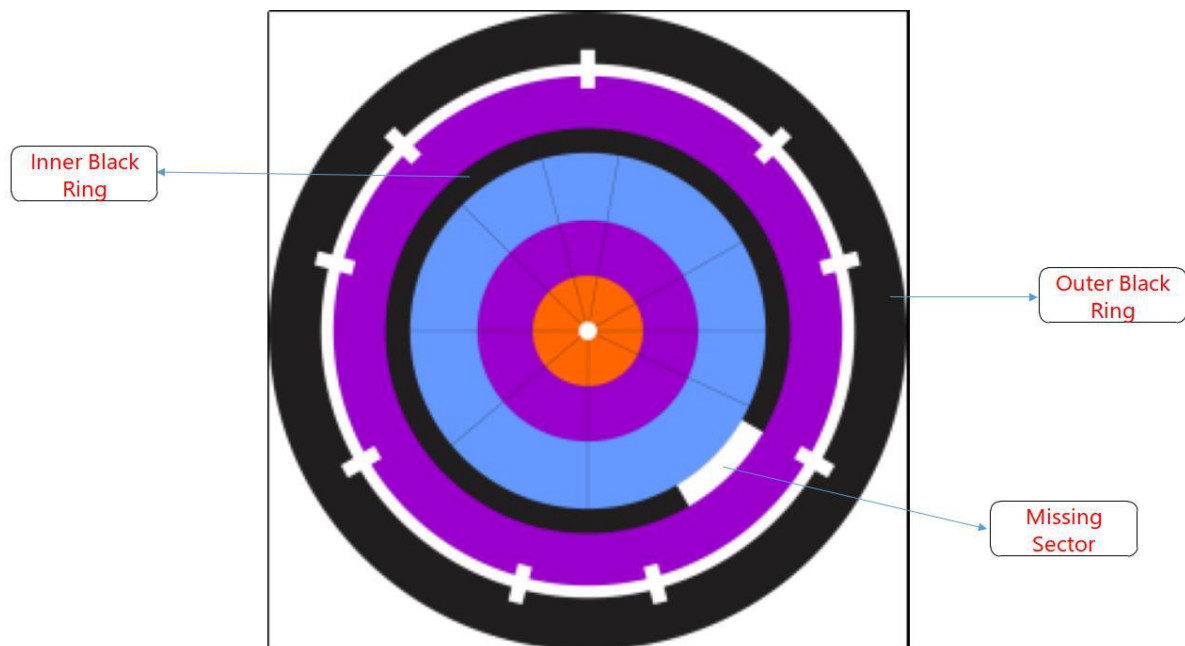


Fig.1.

As we can see in Fig.1., a sector of the inner black ring is missing, and your task is to identify where to fill in. Take a plain white image of same dimensions as the input image and predict (marked by black color) the pixels that you'll fill in to complete the black outer ring. A pictorial representation of the output image is as follows:

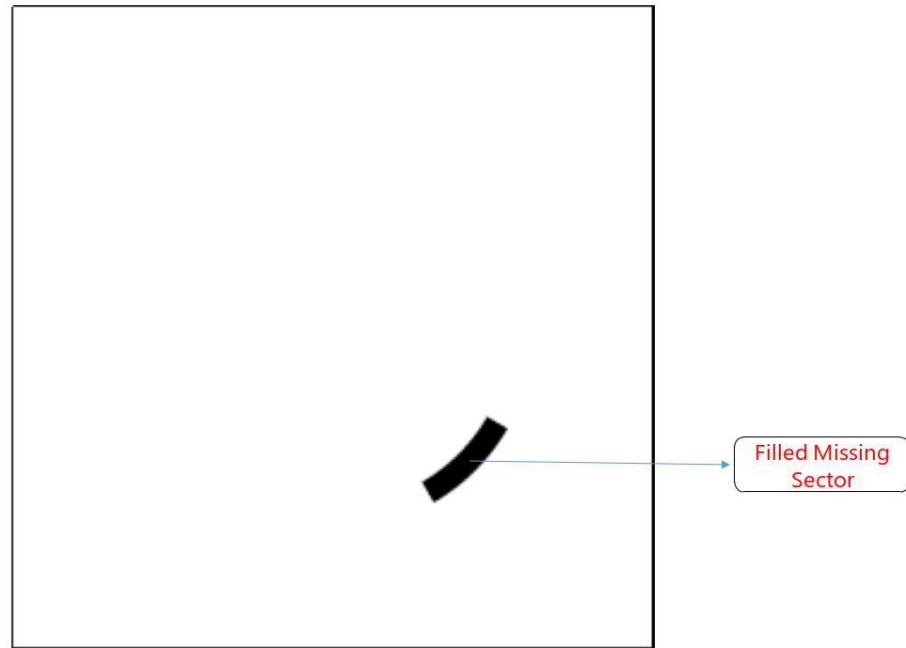


Fig.2.

Given this idea, your team is expected to save such images for all the three images (*image_1.png*, *image_2.png*, *image_3.png*) present in the “Images” folder.

REMEMBER: This is not a machine learning task. This could be easily solved using simple image processing concepts.

Output

For every input image, “*image_i.png*”, you should generate an “*image_i_fill_in.png*” where “i” is the image number. The “*image_i_fill_in.png*”, as mentioned above, would be a plain white image of the same dimension of the input image expect for black which marks segment missing in the original which would ultimately complete the inner black ring in the original image as shown in Fig.2. The images should be saved in the “Generated” folder with “.png” extension.

Note1: By dimensions here we mean single channel but same **height** and **width**.

Note2: Images will be accepted with certain tolerance and shall lead to no deduction of points. The tolerance range, however, will be undisclosed.

Warnings

1. **IMPORTANT:** The code and documents you submit should be YOUR work in YOUR WORDS. To avoid any copyright violations, you must NOT copy phrases or code snippets directly from manuals or web.
2. The team should NOT mail or upload the document, code or folders anywhere else, except on the portal.
3. Teams failing to submit the document, code or folders by the deadline will lose the marks for this task.
4. e-Yantra WILL NOT entertain any request for extension of deadline for uploading the task.
5. e-Yantra holds complete discretion to disqualify a team if any foul play is suspected.

