

## Task 0.2

### Introduction

The objective of this task is to:

1. Understand what a video is.
2. What are the properties of a video frame – viz. colour, aspect ratio, resolution, etc.
3. How to read, display and write a video using Python and OpenCV installed in Task0.1

### Problem Description

Remember that all file and folder paths in your program should be relative. A video named

“RoseBloom.mp4” is provided in the “**Videos**” folder. The video is a colour video of the

blooming of a red rose. As the video progresses the rose flower blooms into a fully bloomed

rose. The Video is a 13 second playout .mp4 format video of resolution  $640 \times 360$  at a

25fps frame rate. All your files must be generated in “**Generated**” folder.

Write your code

in the placeholder file, “main.py” provided in the “**Codes**” folder. Your

“main.py” file must

solve all the parts at once.

### Part A

Read the video and save the frame at the **start of 6th second**. Save the image as

“frame\_as\_6.jpg” in the “**Generated**” folder.

### Part B

We want to visualize the red component of the frame\_at\_6.jpg image.

Read the video or the

file (which ever convenient) and set the Green and Blue components to 0.

Save the image as

“frame\_as\_6\_red.jpg” in the “**Generated**” folder.

### 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.

