Assignment-5

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Downloading the input images:





Step 1 : Importing the library:

```
from PIL import Image
import imageio.v2 as imageio
import numpy as np
```

Step 2 : Creation of images list to store composite images and letter_images list to store the letter image paths

```
images = []
letter_images = [ 'D.png', 'I.png', 'P.png', 'A.png', 'N.png']
```

Step 3: Setting the fixed image size of each letter to 100x100 and the total gif file size.

```
fixed_width, fixed_height = 100, 100
canvas_width = fixed_width * len(letter_images)
```

Step 4 : Now loading the images one by one and appending them to a canvas and then save the frame.

```
# Create progressive combinations of letters
for i in range(1, len(letter_images) + 1):
    # Create a canvas with a fixed size for all frames
    combined_image = Image.new("RGBA", (canvas_width,
fixed_height))
    x_offset = 0

    for j in range(i):
        img = Image.open(letter_images[j]).resize((fixed_width,
fixed_height))  # Resize to fixed dimensions
        combined_image.paste(img, (x_offset, 0))
        x_offset += fixed_width

    # Save the frame
    frame_name = f"frame_{i}.png"
    combined_image.save(frame_name)
    images.append(imageio.imread(frame_name))
```

Step 5: Create and save the gif.

```
output_gif = '1112_A3_Ass5_Dipan_Mondal.gif'
imageio.mimsave(output_gif, images, duration=500,loop=0)
```