**Assignment-5**

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**Downloading the input images:**

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**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)