	Dr D Y Patil Pratishthan's Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune	DI No.: ACAD/DI/72
Academic Year: 2025-26	Weekly Report Format for Internship	Revision : 00 Dated : 20/11/2019
Term - II	Department : Computer Engineering	Date of Preparation : 14/02/2026

Weekly Report Format for Internship

Roll No: 23101

Name of the Student: Ruhan Saad Dave

Name of the Company: CODTECH IT SOLUTIONS PVT.LTD

Domain of Internship: Artificial Intelligence

Name of the Internal Guide: Akanksha Kulkarni

Name of the External Guide: Neela Santhosh Kumar

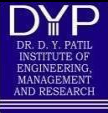
Duration of Internship: 03 Jan 2026 to 14 Feb 2026

Week-IV Dates: 24/01/2026 to 31/01/2026

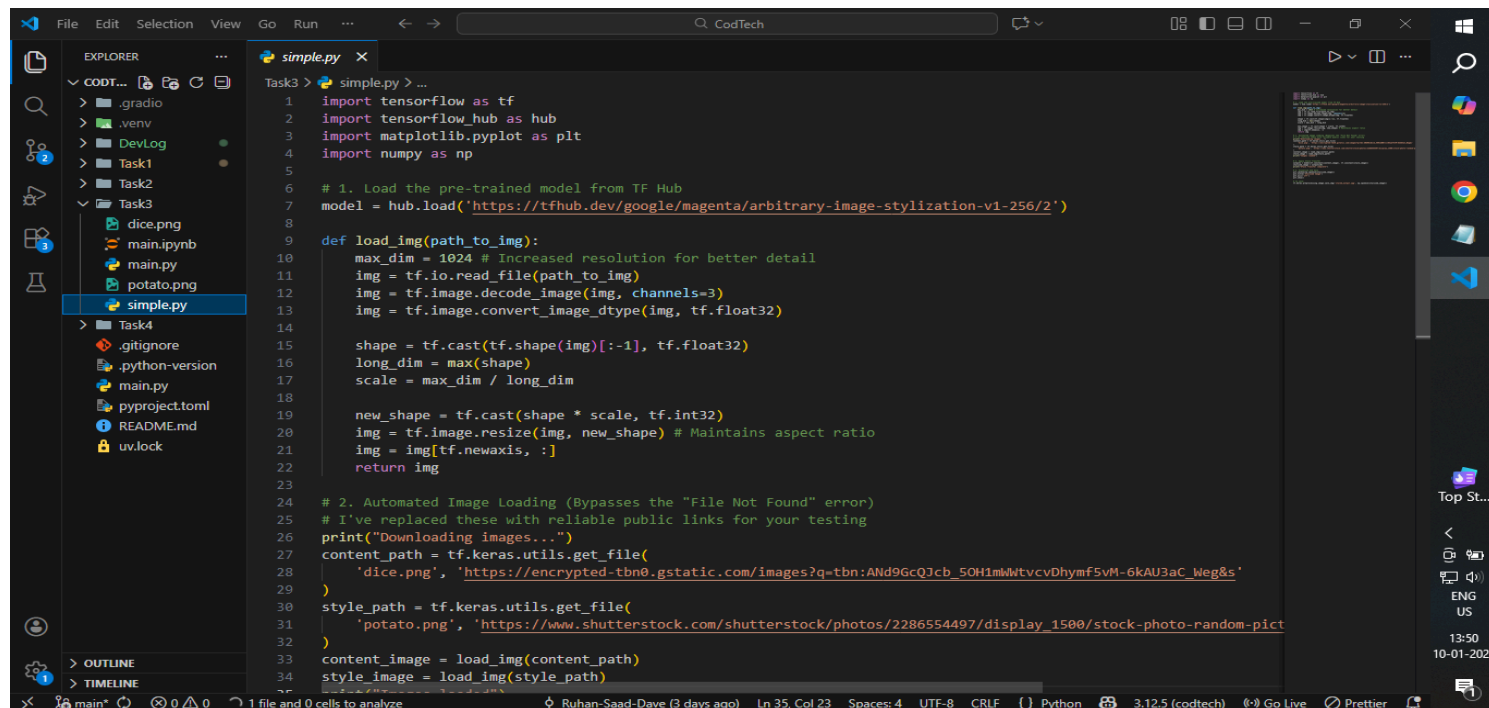
Description of Work Done Till Date (Week 4):

Task 3 - Neural Style Transfer:

- Focused entirely on the Neural Style Transfer task due to its complexity.
- Installed and configured dependencies, including 'tensorflow', 'tensorflow_hub', and 'matplotlib'.
- Researched and selected a pre-trained model from TensorFlow Hub suitable for style transfer.
- Developed a script to load a content image and a style image.
- Successfully implemented the logic to apply the artistic style from the style image onto the content image, generating a new, stylized picture.
- Addressed challenges related to image processing and model execution.

	<p style="text-align: center;">Dr D Y Patil Pratishthan's Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune</p>	<p>DI No.: ACAD/DI/72</p>
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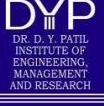
Supporting Documents:

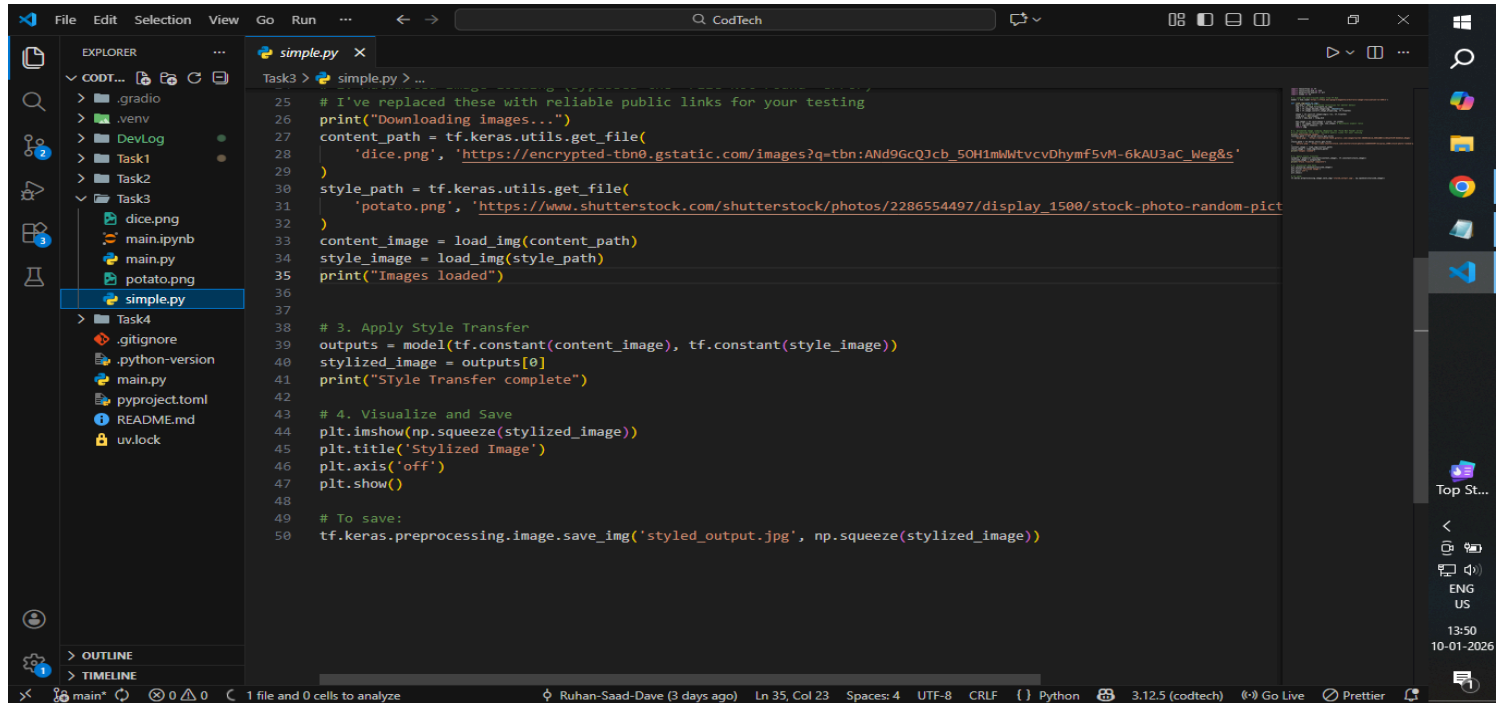


```

1 import tensorflow as tf
2 import tensorflow_hub as hub
3 import matplotlib.pyplot as plt
4 import numpy as np
5
6 # 1. Load the pre-trained model from TF Hub
7 model = hub.load('https://tfhub.dev/google/magenta/arbitrary-image-stylization-v1-256/2')
8
9 def load_img(path_to_img):
10     max_dim = 1024 # Increased resolution for better detail
11     img = tf.io.read_file(path_to_img)
12     img = tf.image.decode_image(img, channels=3)
13     img = tf.image.convert_image_dtype(img, tf.float32)
14
15     shape = tf.cast(tf.shape(img)[:1], tf.float32)
16     long_dim = max(shape)
17     scale = max_dim / long_dim
18
19     new_shape = tf.cast(shape * scale, tf.int32)
20     img = tf.image.resize(img, new_shape) # Maintains aspect ratio
21     img = img[tf.newaxis, :]
22     return img
23
24 # 2. Automated Image Loading (Bypasses the "File Not Found" error)
25 # I've replaced these with reliable public links for your testing
26 print("Downloading images...")
27 content_path = tf.keras.utils.get_file(
28     'dice.png', 'https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcQJcb_5OH1mMwTvcvDhymf5vM-6kAU3aC_Weg&s'
29 )
30 style_path = tf.keras.utils.get_file(
31     'potato.png', 'https://www.shutterstock.com/shutterstock/photos/2286554497/display_1500/stock-photo-random-pict
32 )
33 content_image = load_img(content_path)
34 style_image = load_img(style_path)

```

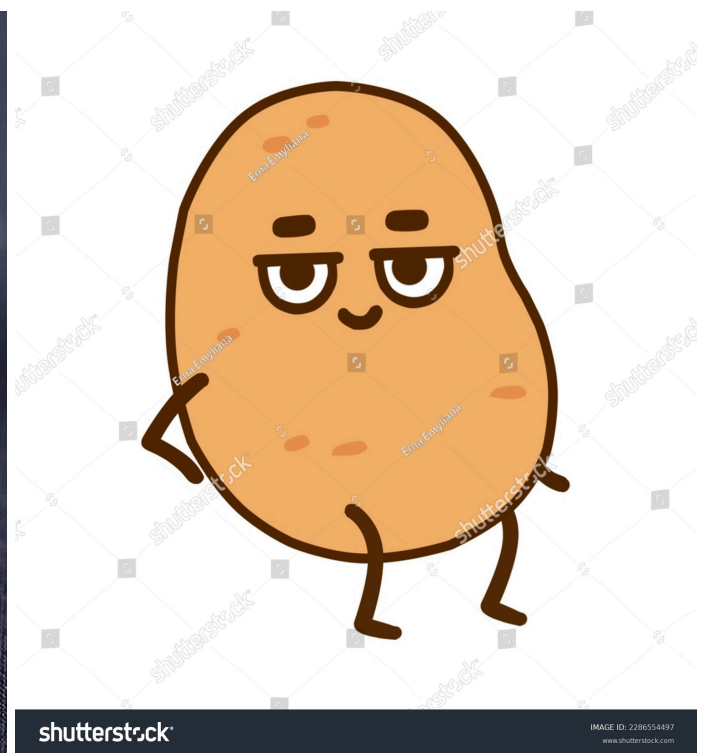
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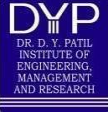


```

25 # I've replaced these with reliable public links for your testing
26 print("Downloading images...")
27 content_path = tf.keras.utils.get_file(
28     'dice.png', 'https://encrypted-tbn0.gstatic.com/images?q=tbn:AND9GcQJcb_5OH1mMwTvcvDhymf5vM-6kAU3aC_Weg&s'
29 )
30 style_path = tf.keras.utils.get_file(
31     'potato.png', 'https://www.shutterstock.com/shutterstock/photos/2286554497/display_1500/stock-photo-random-pict
32 )
33 content_image = load_img(content_path)
34 style_image = load_img(style_path)
35 print("Images loaded")
36
37
38 # 3. Apply Style Transfer
39 outputs = model(tf.constant(content_image), tf.constant(style_image))
40 stylized_image = outputs[0]
41 print("Style Transfer complete")
42
43 # 4. Visualize and Save
44 plt.imshow(np.squeeze(stylized_image))
45 plt.title('Stylized Image')
46 plt.axis('off')
47 plt.show()
48
49 # To save:
50 tf.keras.preprocessing.image.save_img('styled_output.jpg', np.squeeze(stylized_image))

```



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Stylized Image



Student Sign

Internal Guide Sign