Date of the Session:___/___/___   **Time of the Session:____to_____**

SKILLING -1:

Design a preprocessing pipeline for a dataset of 30 grayscale images, each of size 200x200 pixels.
Resize the images to a dimension of 64x64, ensuring they are suitable for a neural network input.
Normalize the pixel values to be within the range [0, 1].
Visualize a few original and preprocessed images side-by-side.

 Print the shape of the dataset before and after preprocessing


```python
import numpy as np
import matplotlib.pyplot as plt
from skimage.transform import resize

images = np.random.randint(0, 256, (30, 200, 200), dtype=np.uint8)
preprocessed = np.array([resize(img, (64, 64), anti_aliasing=True) / 255.0 for img in images])

print("Original shape:", images.shape)
print("Preprocessed shape:", preprocessed.shape)

fig, axes = plt.subplots(2, 5, figsize=(15, 6))
for i in range(5):
    axes[0, i].imshow(images[i], cmap='gray')
    axes[0, i].set_title(f"Original {i+1}")
    axes[0, i].axis('off')
    axes[1, i].imshow(preprocessed[i], cmap='gray')
    axes[1, i].set_title(f"Preprocessed {i+1}")
    axes[1, i].axis('off')
plt.tight_layout()
plt.show()
```
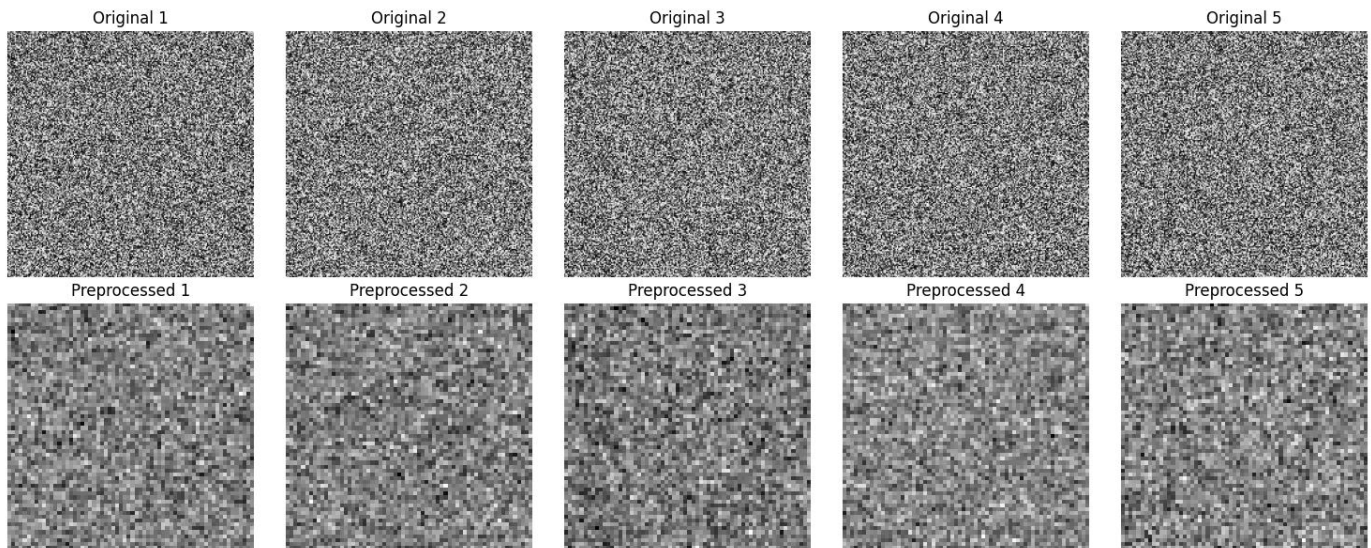
Output:

Original shape: (30, 200, 200)
Preprocessed shape: (30, 64, 64)

Comment of the Evaluator (if Any)	Evaluator's Observation
	Marks Secured _____ out of 50
	Full Name of the Evaluator:
	Signature of the Evaluator Date of Evaluation: