Proof of using virtual Lab (Or attempts to use it)
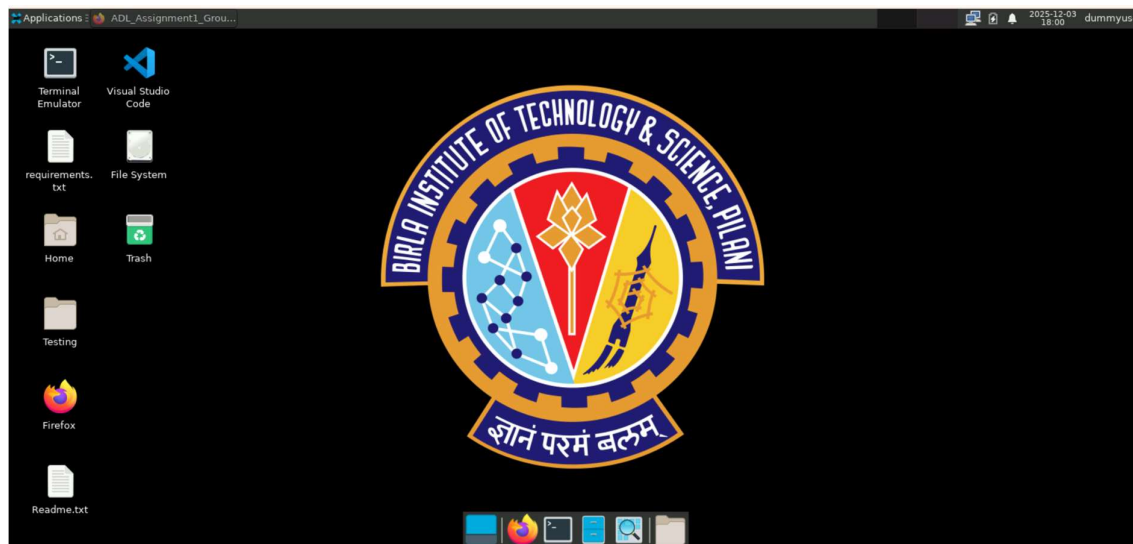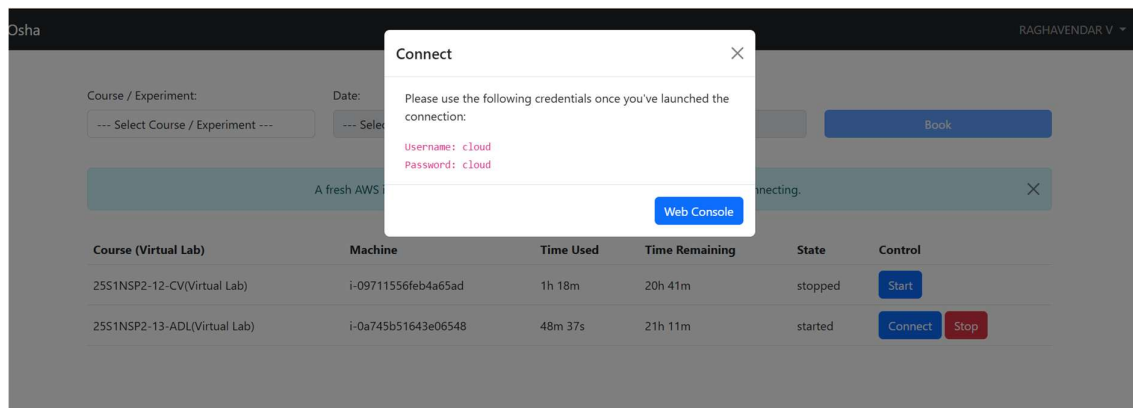
← → C   ⌂ colab.research.**google.com**/drive/196m_zVpY4XfNtNjibpKxOOL4tqc7cLI5   ☆

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Convert to grayscale

```python
# Convert to grayscale using TensorFlow's built-in function
# .squeeze() removes the channel dimension from (batch, 32, 32, 1) to (batch, 32, 32) instead of above numpy appraoch
X_train_gray = tf.image.rgb_to_grayscale(X_train_color).numpy().squeeze()
X_test_gray = tf.image.rgb_to_grayscale(X_test_color).numpy().squeeze()

print(f"Grayscale shapes:")
print(f"Training: {X_train_gray.shape}")
print(f"Test     : {X_test_gray.shape}")
```

```
Grayscale shapes:
Training: (50000, 32, 32)
Test     : (10000, 32, 32)
```

Split dataset 70-30 (Random)

```python
# Combine all data and resplit 70/30
X_all = np.vstack([X_train_gray, X_test_gray])
```

{} Variables ⌨ Terminal   🐍 Python 3