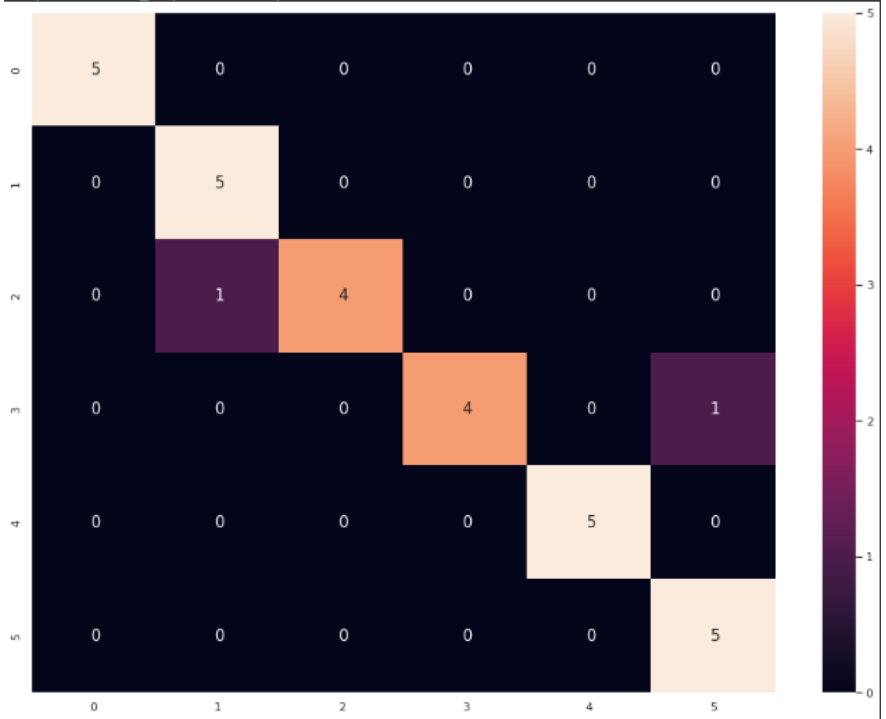


Project Development Phase Model Performance Test

| | |
|---------------|---|
| Date | 10 November 2022 |
| Team ID | PNT2022TMID35856 |
| Project Name | A Gesture-based Tool for Sterile Browsing of Radiology Images |
| Maximum Marks | 10 Marks |

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

| S.No. | Parameter | Values | Screenshot |
|-------|-----------|---|---|
| 1. | Metrics | Classification Model: Confusion Matrix : Accuracy Score- :93.3% Classification Report : | <p>CONFUSION MATRIX</p>  <p>ACCURACY SCORE:</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Accuracy: 93.333333333333 %</div> <p>CLASSIFICATION REPORT:</p> |

| | | | <div><div>Gesture Recognition model accuracy:0.9333</div><table><tr><th></th><th>precision</th><th>recall</th><th>f1-score</th><th>support</th></tr><tr><td>0</td><td>1.00</td><td>1.00</td><td>1.00</td><td>5</td></tr><tr><td>1</td><td>0.83</td><td>1.00</td><td>0.91</td><td>5</td></tr><tr><td>2</td><td>1.00</td><td>0.80</td><td>0.89</td><td>5</td></tr><tr><td>3</td><td>1.00</td><td>0.80</td><td>0.89</td><td>5</td></tr><tr><td>4</td><td>1.00</td><td>1.00</td><td>1.00</td><td>5</td></tr><tr><td>5</td><td>0.83</td><td>1.00</td><td>0.91</td><td>5</td></tr><tr><td>accuracy</td><td></td><td></td><td>0.93</td><td>30</td></tr><tr><td>macro avg</td><td>0.94</td><td>0.93</td><td>0.93</td><td>30</td></tr><tr><td>weighted avg</td><td>0.94</td><td>0.93</td><td>0.93</td><td>30</td></tr></table></div> | | precision | recall | f1-score | support | 0 | 1.00 | 1.00 | 1.00 | 5 | 1 | 0.83 | 1.00 | 0.91 | 5 | 2 | 1.00 | 0.80 | 0.89 | 5 | 3 | 1.00 | 0.80 | 0.89 | 5 | 4 | 1.00 | 1.00 | 1.00 | 5 | 5 | 0.83 | 1.00 | 0.91 | 5 | accuracy | | | 0.93 | 30 | macro avg | 0.94 | 0.93 | 0.93 | 30 | weighted avg | 0.94 | 0.93 | 0.93 | 30 |
|--------------|----------------|--|---|---------|-----------|--------|----------|---------|---|------|------|------|---|---|------|------|------|---|---|------|------|------|---|---|------|------|------|---|---|------|------|------|---|---|------|------|------|---|----------|--|--|------|----|-----------|------|------|------|----|--------------|------|------|------|----|
| | precision | recall | f1-score | support | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 1.00 | 1.00 | 1.00 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.83 | 1.00 | 0.91 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1.00 | 0.80 | 0.89 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 1.00 | 0.80 | 0.89 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 1.00 | 1.00 | 1.00 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 0.83 | 1.00 | 0.91 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| accuracy | | | 0.93 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| macro avg | 0.94 | 0.93 | 0.93 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| weighted avg | 0.94 | 0.93 | 0.93 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | Tune the Model | Hyperparameter Tuning Validation Method | <div><pre>[] import tensorflow as tf print(tf.__version__) model=tf.keras.Sequential([tf.keras.layers.Conv2D(16,(3,3),activation='relu',input_shape=(128,128,1)), tf.keras.layers.MaxPooling2D(2,2), tf.keras.layers.Conv2D(32,(3,3),activation='relu'), tf.keras.layers.MaxPooling2D(2,2), tf.keras.layers.Conv2D(16,(3,3),activation='relu'), tf.keras.layers.MaxPooling2D(2,2), tf.keras.layers.Flatten(), tf.keras.layers.Dense(512,activation='relu'), tf.keras.layers.Dense(6,activation='softmax')]) model.compile(loss='categorical_crossentropy',optimizer='Adam',metrics=['Accuracy'])</pre></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |