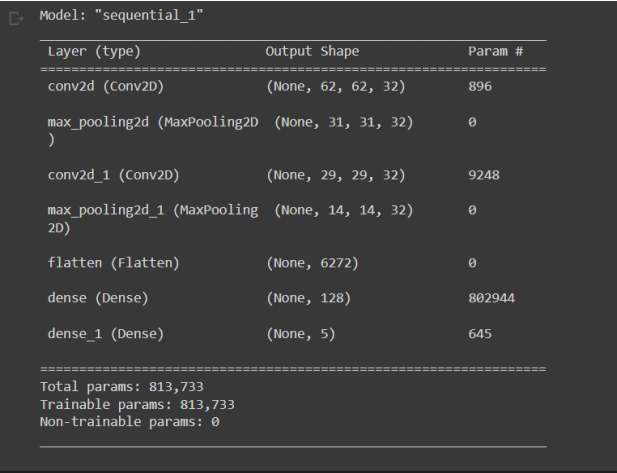
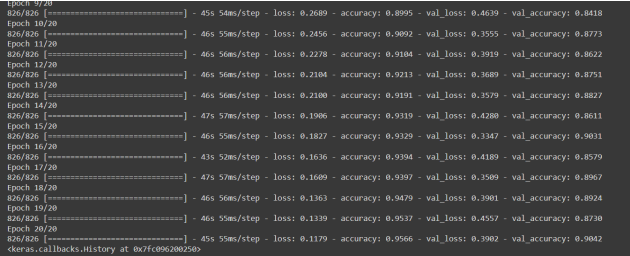



Project Development Phase

Model Performance Test

Date	5 November 2022
Team ID	PNT2022TMID13870
Project Name	Project - AI-Powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	10 marks

Model Performance Testing:

S.No	Parameter	Values	Screenshots
1.	Model Summary	-	 <pre> Model: "sequential_1" ----- Layer (type) Output Shape Param # ----- conv2d (Conv2D) (None, 62, 62, 32) 896 max_pooling2d (MaxPooling2D) (None, 31, 31, 32) 0 conv2d_1 (Conv2D) (None, 29, 29, 32) 9248 max_pooling2d_1 (MaxPooling2D) (None, 14, 14, 32) 0 flatten (Flatten) (None, 6272) 0 dense (Dense) (None, 128) 802944 dense_1 (Dense) (None, 5) 645 ----- Total params: 813,733 Trainable params: 813,733 Non-trainable params: 0 </pre>
2.	Accuracy	Training Accuracy - 90.42 Validation Accuracy - 90.42	 <pre> Epoch 9/20 - 45s 54ms/step - loss: 0.2689 - accuracy: 0.8995 - val_loss: 0.4639 - val_accuracy: 0.8418 Epoch 10/20 - 46s 55ms/step - loss: 0.2456 - accuracy: 0.9092 - val_loss: 0.3555 - val_accuracy: 0.8773 Epoch 11/20 - 46s 56ms/step - loss: 0.2278 - accuracy: 0.9104 - val_loss: 0.3919 - val_accuracy: 0.8622 Epoch 12/20 - 46s 56ms/step - loss: 0.2104 - accuracy: 0.9213 - val_loss: 0.3609 - val_accuracy: 0.8751 Epoch 13/20 - 46s 56ms/step - loss: 0.2100 - accuracy: 0.9191 - val_loss: 0.3579 - val_accuracy: 0.8827 Epoch 14/20 - 47s 57ms/step - loss: 0.1986 - accuracy: 0.9319 - val_loss: 0.4200 - val_accuracy: 0.8611 Epoch 15/20 - 46s 55ms/step - loss: 0.1827 - accuracy: 0.9329 - val_loss: 0.3347 - val_accuracy: 0.9031 Epoch 16/20 - 43s 52ms/step - loss: 0.1636 - accuracy: 0.9394 - val_loss: 0.4189 - val_accuracy: 0.8579 Epoch 17/20 - 47s 57ms/step - loss: 0.1609 - accuracy: 0.9397 - val_loss: 0.3500 - val_accuracy: 0.8967 Epoch 18/20 - 46s 56ms/step - loss: 0.1363 - accuracy: 0.9479 - val_loss: 0.3901 - val_accuracy: 0.8924 Epoch 19/20 - 46s 55ms/step - loss: 0.1339 - accuracy: 0.9537 - val_loss: 0.4557 - val_accuracy: 0.8730 Epoch 20/20 - 45s 55ms/step - loss: 0.1179 - accuracy: 0.9566 - val_loss: 0.3982 - val_accuracy: 0.9042 keras.callbacks.History at 0x7fc096280250 </pre>

3.	Confidence Score	<div>Class Detected - Apples, Banana, Orange, Pineapple, Watermelon</div> <div>Confidence Score - 90.42 in testing model</div>	<div><div><div><div>+ Code+ Text</div><div><pre>x = np.random.randn(1, axis = 0) [] predict_x_model.predict(x) classes_x=np.argmax(predict_x,axis=-1) classes_x 1/1 [-----] - 0s 187ms/step array([2]) [] index(['APPLES', 'BANANA', 'ORANGE', 'PINEAPPLE', 'WATERMELON']) result=str(index[classes_x[0]]) result 'ORANGE' [] print(result) if result == 'APPLES': print('One serving, or one medium apple, provides about 95 calories, 0 gram fat, 1 g elif result == 'BANANA': print('One serving, or one medium ripe banana, provides about 110 calories, 0 gram fa elif result == 'ORANGE': print('60 calories, no fat or sodium, 3 grams of fiber, 12 grams of sugar, 1 gram of elif result == 'PINEAPPLE': print('Calories: 83, Fat: 1.7 grams, Protein: 1 gram, Carbs: 21.6 grams, Fiber: 2.3 g elif result == 'WATERMELON': print('Calories: 46, Carbs: 11.5 grams, Fiber: 0.6 grams, Sugar: 9.4 grams, Protein: ORANGE 60 calories, No fat or sodium, 3 grams of fiber, 12 grams of sugar, 1 gram of protein,</pre></div></div></div><div><div></div><div><div>Fruit: ORANGE</div><div>Nutrition: 60 calories, No fat or sodium, 3 grams of fiber, 12 grams of sugar, 1 gram of protein, 14 micrograms of vitamin A, 70 milligrams of vitamin C, 6% of your daily recommended amount of calcium.</div></div></div></div>
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