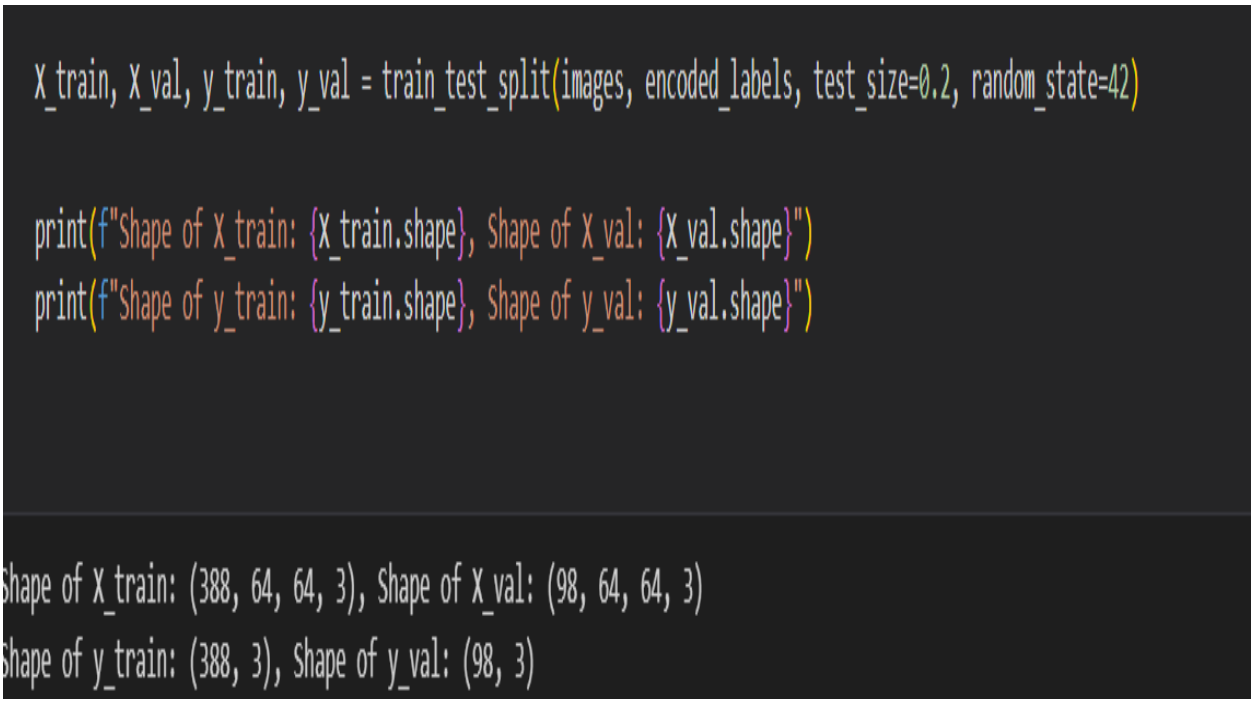
Model Development Phase Template

Date	03 July 2024
Team ID	SWTID1720085445
Project Name	Hydration Essentials: Classifying Water Bottle Images
Maximum Marks	10 Marks

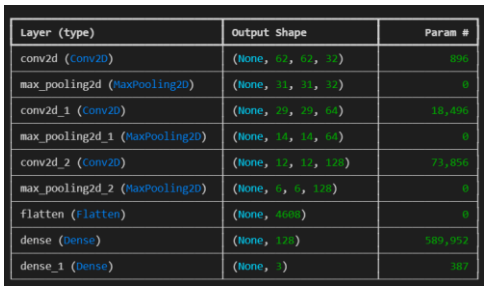
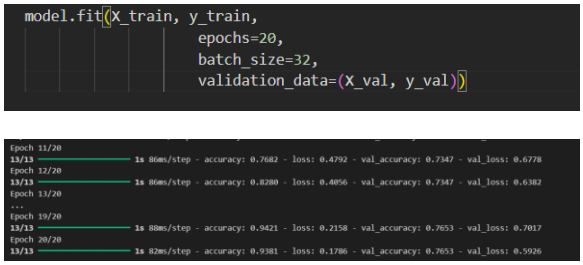
Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):



Model Validation and Evaluation Report (5 marks):

Model	Summary	Training and Validation Performance Metrics
Sequential		


```
model.fit(X_train, y_train,
                    epochs=20,
                    batch_size=32,
                    validation_data=(X_val, y_val))
```

```
Epoch 11/20
13/13 ━━━━━━━━━━━━━━━━━━━━ 1s 86ms/step - accuracy: 0.7682 - loss: 0.4792 - val_accuracy: 0.7347 - val_loss: 0.6778
Epoch 12/20
13/13 ━━━━━━━━━━━━━━━━━━━━ 1s 86ms/step - accuracy: 0.8280 - loss: 0.4056 - val_accuracy: 0.7347 - val_loss: 0.6382
Epoch 13/20
...
Epoch 19/20
13/13 ━━━━━━━━━━━━━━━━━━━━ 1s 88ms/step - accuracy: 0.9421 - loss: 0.2158 - val_accuracy: 0.7653 - val_loss: 0.7017
Epoch 20/20
13/13 ━━━━━━━━━━━━━━━━━━━━ 1s 82ms/step - accuracy: 0.9381 - loss: 0.1786 - val_accuracy: 0.7653 - val_loss: 0.5926
```