Sprint 2 - Task 4 & 5

Date	15 October 2022
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Project Name	AI Based Food Analyzer for fitness Enthusiasts

Building CNN Model

We have built a CNN model of ‘Sequential’ and imported the Necessary Dense Layers and Classifiers

```
[ ]  model=Sequential()

[ ]  classifier = Sequential()
```

Adding Necessary Dense Layers

```
classifier.add(Conv2D(32,(3,3),input_shape=(64,64,3),activation='relu'))

classifier.add(MaxPooling2D(pool_size=(2,2)))

classifier.add(Conv2D(32,(3,3),activation='relu'))

classifier.add(MaxPooling2D(pool_size=(2,2)))

classifier.add(Flatten())

classifier.add(Dense(units=128,activation='relu'))

classifier.add(Dense(units=5,activation='softmax'))

classifier.summary()

classifier.compile(optimizer='adam',loss='sparse_categorical_crossentropy',metrics=['accuracy'])
```

Results

```
[ ]
Model: "sequential_3"
_________________________________________________________________
 Layer (type)                Output Shape              Param #
=================================================================
 conv2d_2 (Conv2D)           (None, 62, 62, 32)        896

 max_pooling2d_2 (MaxPooling  (None, 31, 31, 32)       0
 2D)

 conv2d_3 (Conv2D)           (None, 29, 29, 32)        9248

 max_pooling2d_3 (MaxPooling  (None, 14, 14, 32)       0
 2D)

 flatten_1 (Flatten)         (None, 6272)              0

 dense_2 (Dense)             (None, 128)               802944

 dense_3 (Dense)             (None, 5)                 645

=================================================================
Total params: 813,733
Trainable params: 813,733
Non-trainable params: 0
_________________________________________________________________
```