WEEK -5

LOB LOGBOOK

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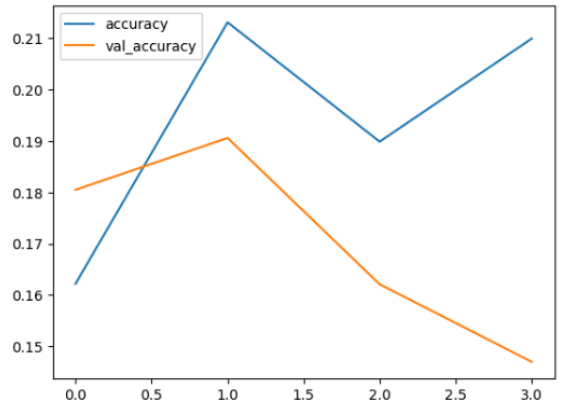
ASSIGNMENT - WEEK 5

Code & graphs :

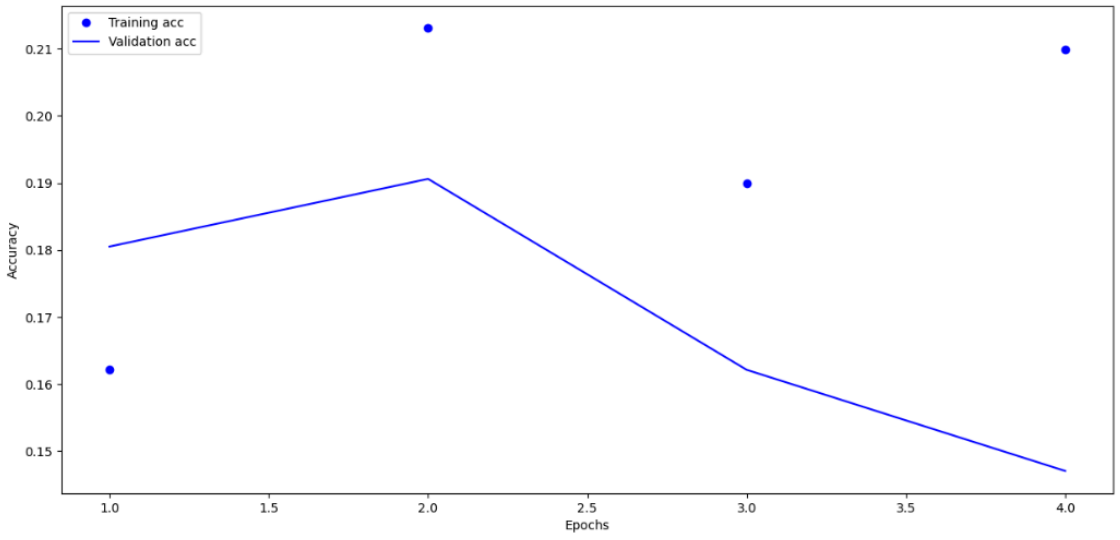
```
# Plot accuracy and val_accuracy vs the epochs

losses[['accuracy','val_accuracy']].plot()
```

```
[39]: losses[['accuracy','val_accuracy']].plot()
```

```
[39]: <Axes: >
```

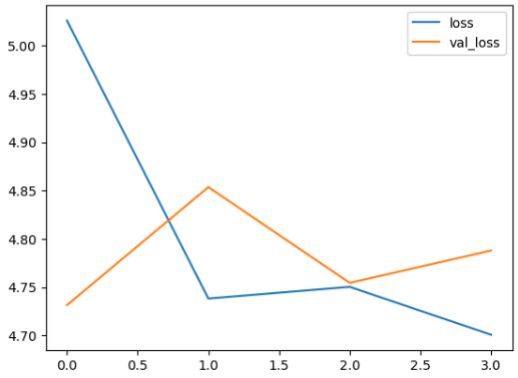



```
history_dict = history.history

acc_values = history_dict['accuracy']
val_acc_values = history_dict['val_accuracy']
epochs = range(1, len(acc_values) + 1)

plt.figure(num=1, figsize=(15,7))
plt.plot(epochs, acc_values, 'bo', label='Training acc')
plt.plot(epochs, val_acc_values, 'b', label='Validation acc')
plt.xlabel('Epochs')
plt.ylabel('Accuracy')
plt.legend()

plt.show()
```



[41]:
```
losses[['loss','val_loss']].plot()
```

[41]: <Axes: >



[26]:
```
model=Sequential()
model.add(Conv2D(filters=32,kernel_size=(4,4),strides=(1,1),input_shape=(32,32,3),activation='relu',))
model.add(MaxPool2D(pool_size=(2,2),strides=(2,2)))

model.add(Conv2D(filters=64,kernel_size=(3,3),strides=(2,2),activation='relu',))
model.add(MaxPool2D(pool_size=(2,2),strides=(2,2)))


model.add(Flatten())


model.add(Dense(128,activation='relu'))
model.add(Dense(10,activation='relu'))
```

[ ]:

Model summary:

[27]:
```
model.summary()
```

Model: "sequential_1"

Layer (type)	Output Shape	Param #
conv2d_1 (Conv2D)	(None, 29, 29, 32)	1,568
max_pooling2d_1 (MaxPooling2D)	(None, 14, 14, 32)	0
conv2d_2 (Conv2D)	(None, 6, 6, 64)	18,496
max_pooling2d_2 (MaxPooling2D)	(None, 3, 3, 64)	0
flatten_1 (Flatten)	(None, 576)	0
dense (Dense)	(None, 128)	73,856
dense_1 (Dense)	(None, 10)	1,290

Total params: 95,210 (371.91 KB)
Trainable params: 95,210 (371.91 KB)
Non-trainable params: 0 (0.00 B)