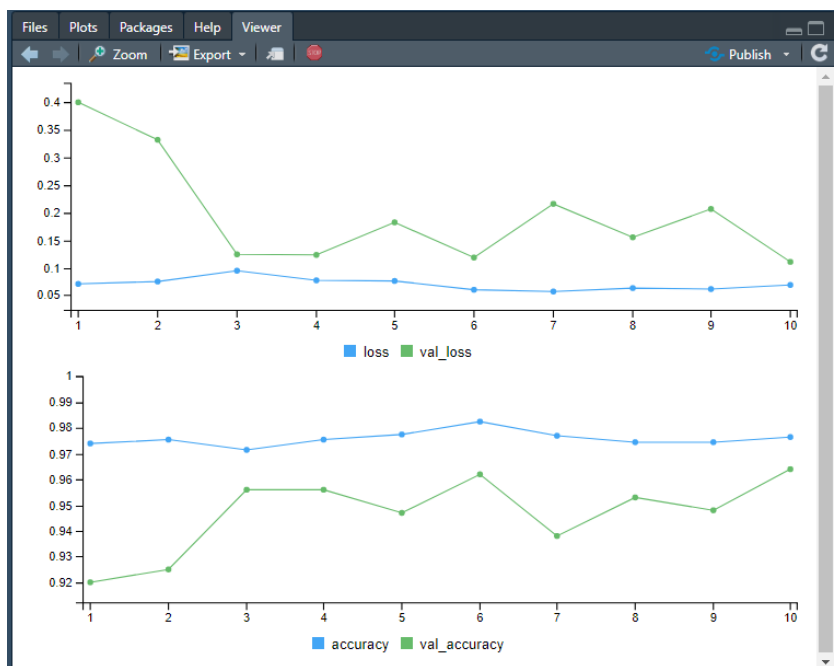**Mehul Raj**

18bce1146
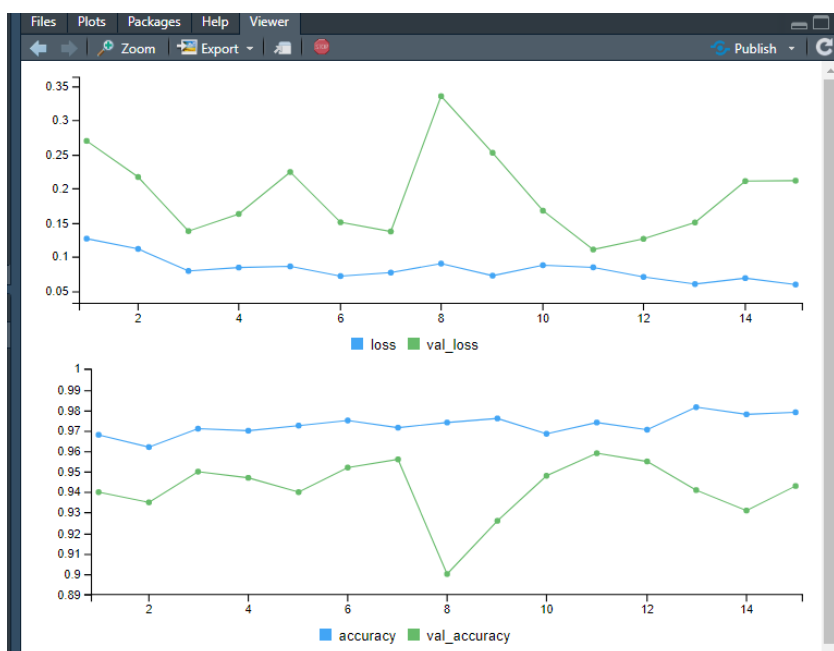
Results

Inception V3 model

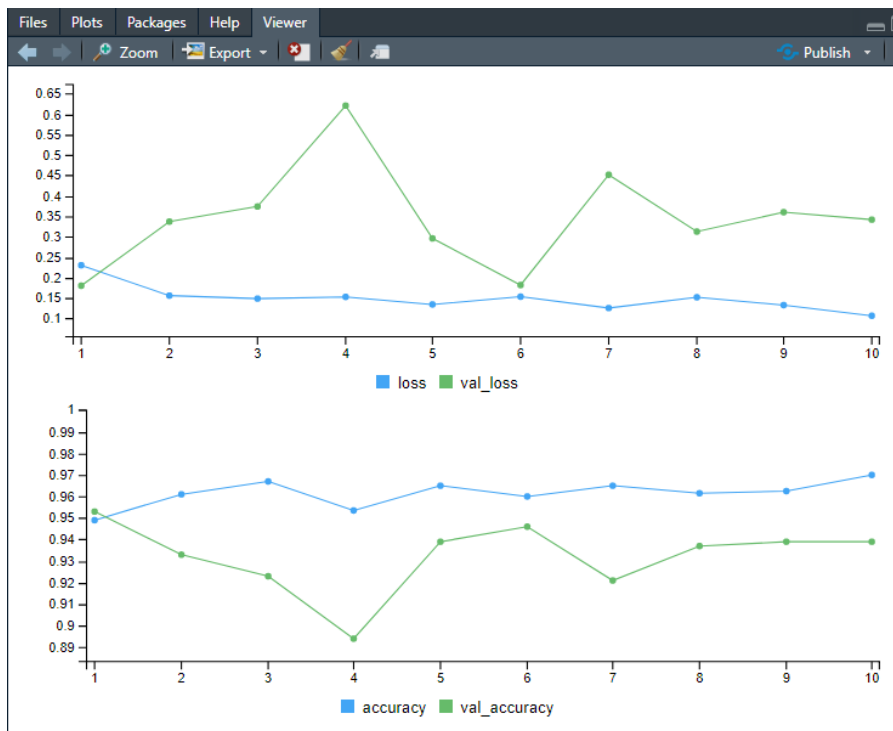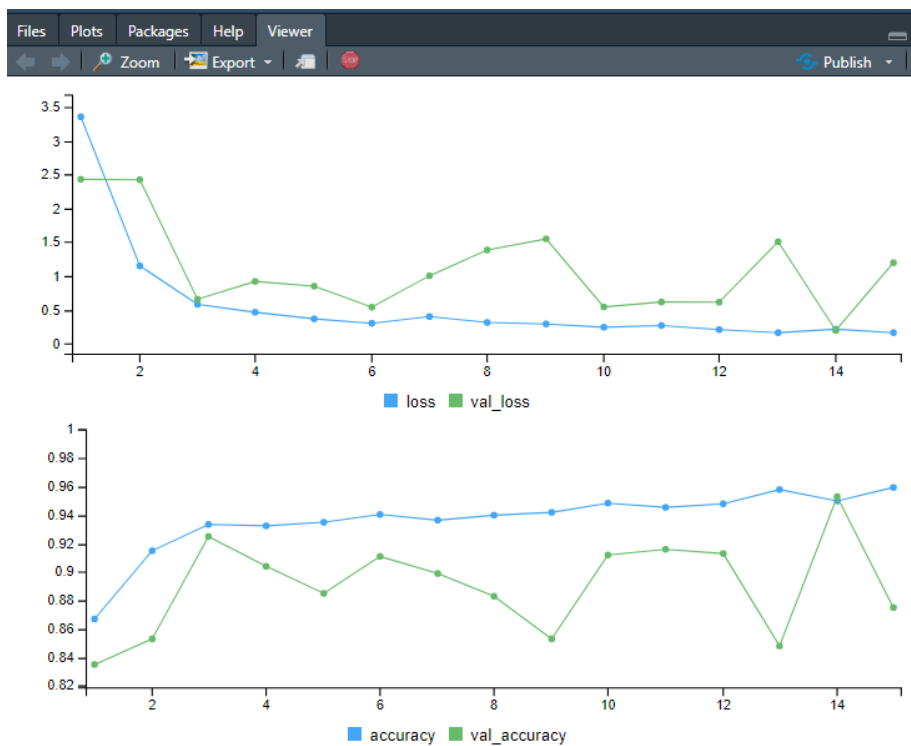## Unfreeze adam

Freeze adam

Unfreeze Rmsprop

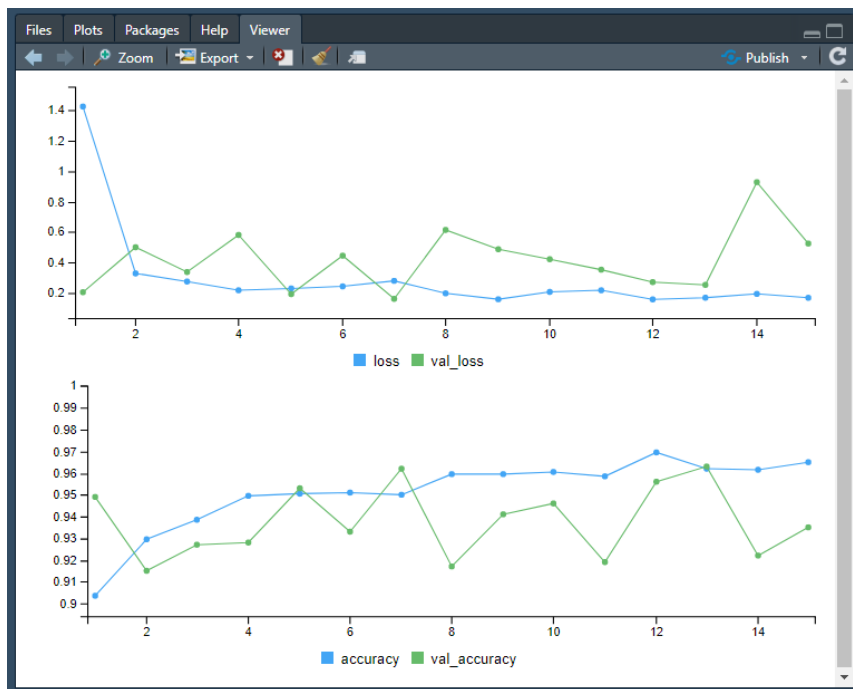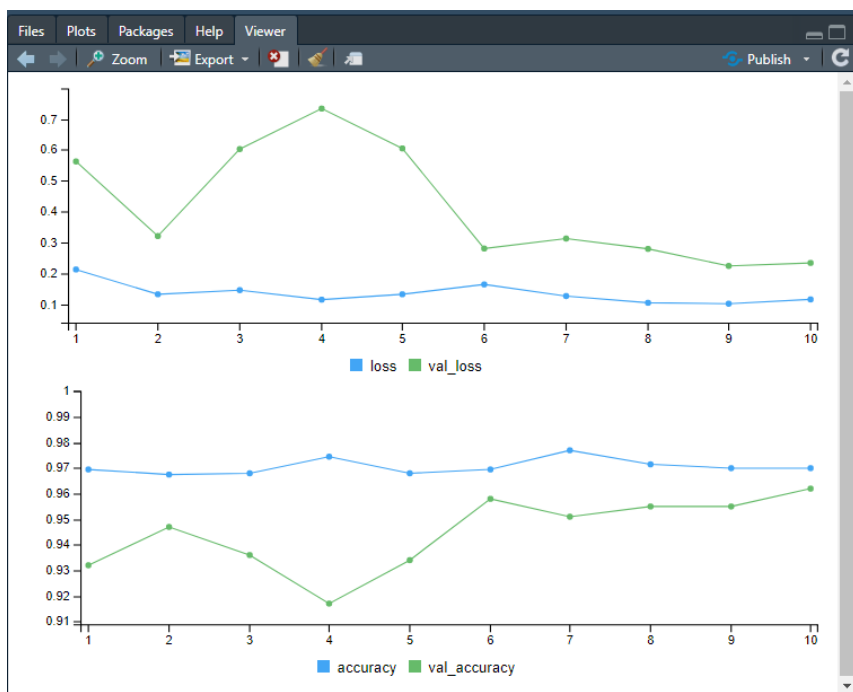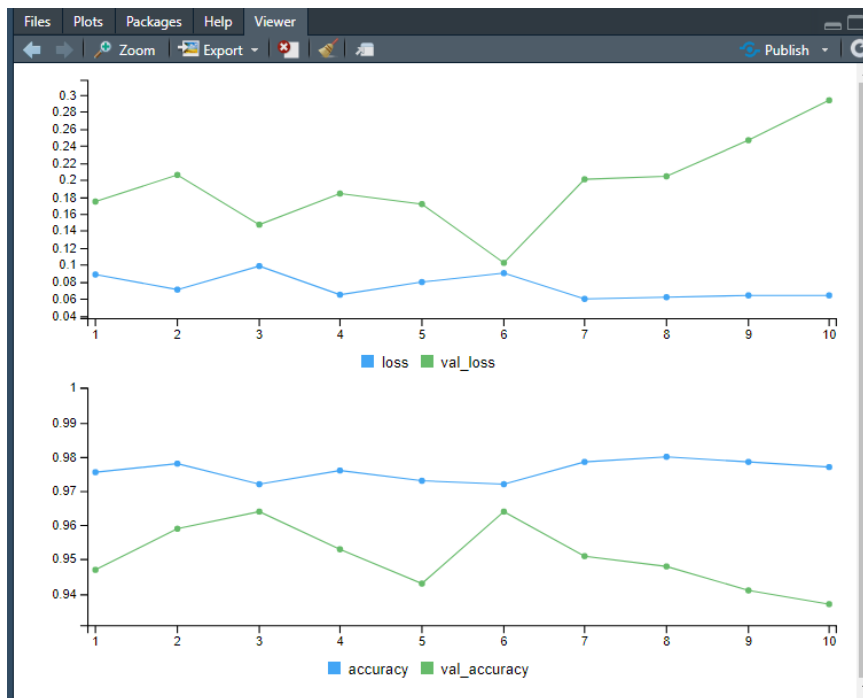## Freeze Rmsprop

Xception:

Freeze Rmsprop

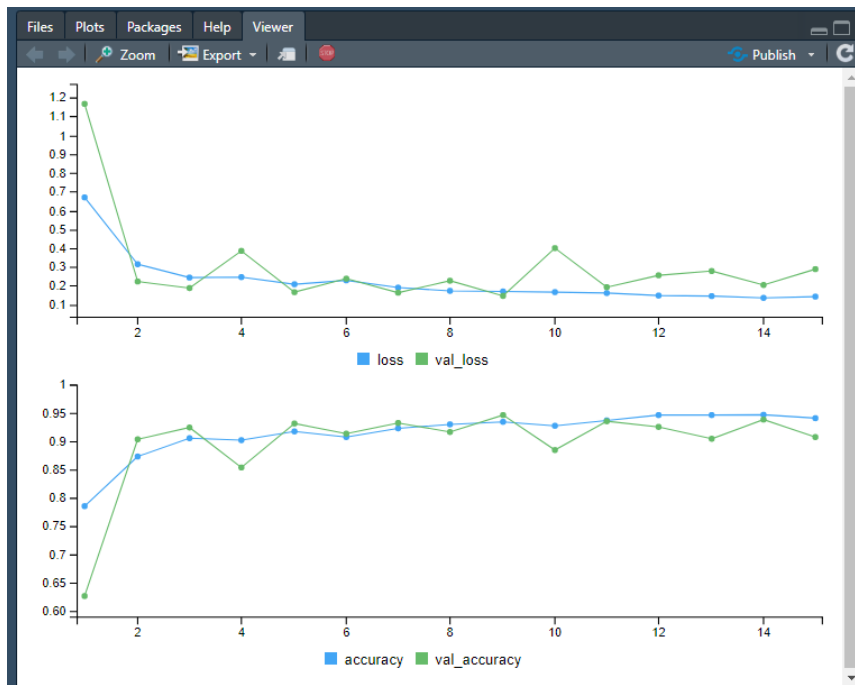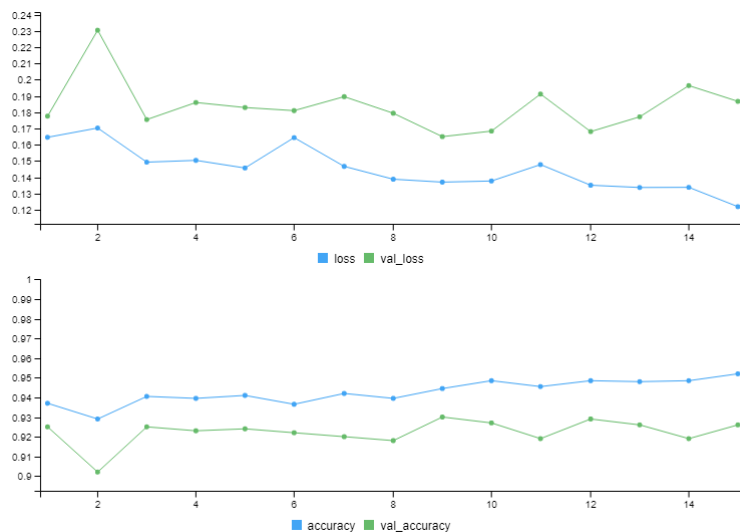## Unfreeze Rmsprop

Unfreeze Adam

VGG16 model:

Unfreeze Rmsprop

Feature Extraction

CNN Model

Code

```
In [12]: x = x/255.0

model  = Sequential()

model.add(Conv2D(32, (3,3), input_shape = x.shape[1:]))
model.add(Activation("relu"))
model.add(MaxPooling2D(pool_size = (2,2)))

model.add(Conv2D(32, (3,3)))
model.add(Activation("relu"))
model.add(MaxPooling2D(pool_size = (2,2)))

model.add(Flatten())
model.add(Dense(32))

model.add(Dense(1))
model.add(Activation('sigmoid'))

model.compile(loss = "binary_crossentropy", optimizer='adam',
              metrics=['accuracy'])
```
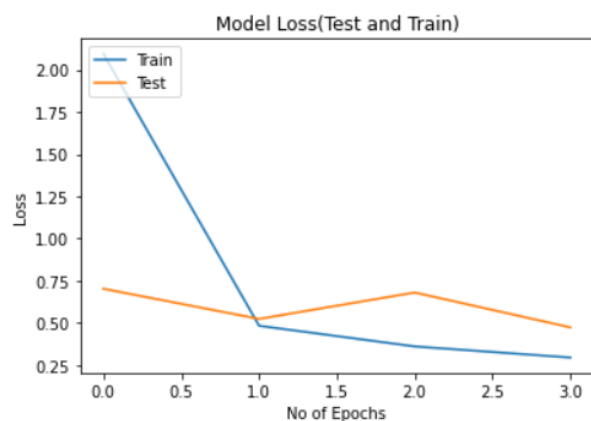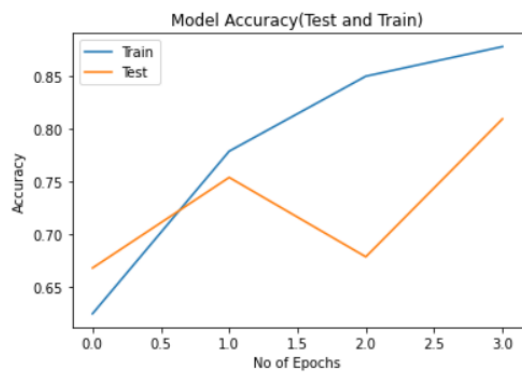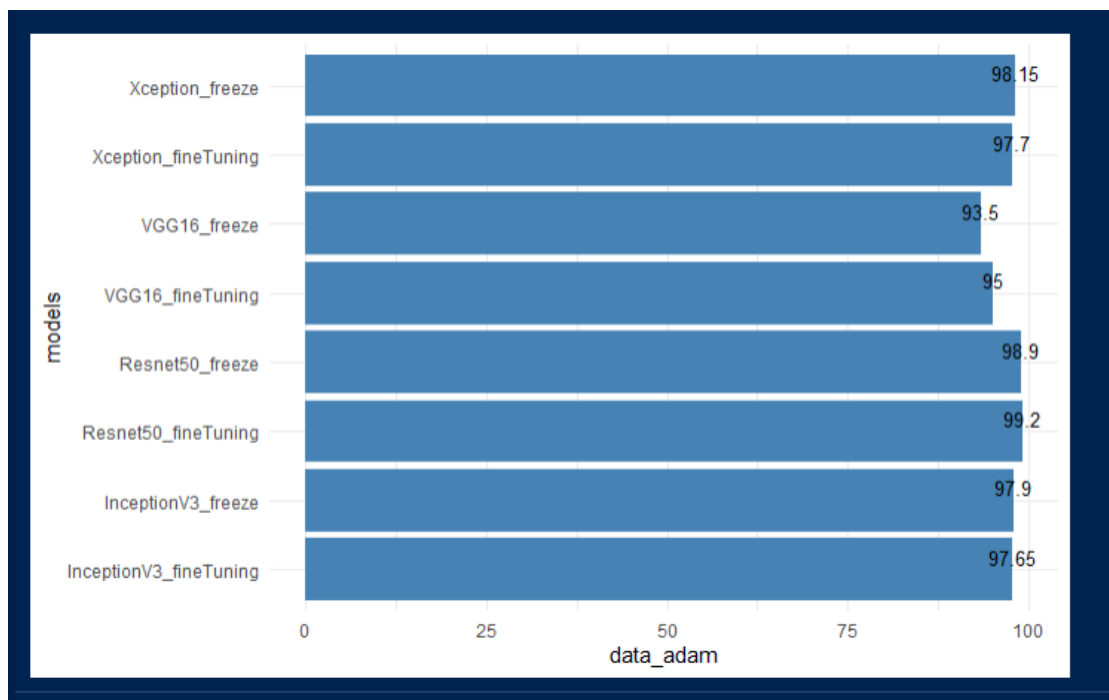
```
Maximum Training Accuracy is 87.82
Maximum Validtion Accuracy is 80.95
```

Model Accuracy(Test and Train)

Model Loss(Test and Train)

Comparison Results:

Adam Optimizer

Rmsprop Optimizer