```
model3=Sequential()

model3.add(Conv2D(32,(4,4),activation='relu',padding='same',input_shape=(48,4
8,1)))  #moving ahead with grayscale inputs as RGB didnt show much big of a
difference
model3.add(Conv2D(32,(4,4),activation='relu',padding='same'))

model3.add(Conv2D(64,(4,4),padding='same',activation='relu'))
       #removed maxpooling layers
model3.add(Conv2D(64,(4,4),padding='same',activation='relu'))
       #2 layers of conv2D with 64 filters and kernel size increased to (4,4)
to capture bigger details


model3.add(Conv2D(64,(4,4),padding='same',activation='relu'))
       #removed maxpooling layers
model3.add(Conv2D(64,(4,4),padding='same',activation='relu'))
       #2 layers of conv2D with 64 filters and kernel size increased to (4,4)
to capture bigger details
model3.add(MaxPooling2D(2,2))

model3.add(Conv2D(128,(4,4),padding='same',activation='relu'))
        #2 layers of conv2D with 128 filters
model3.add(Conv2D(128,(4,4),padding='same',activation='relu'))


model3.add(Conv2D(128,(4,4),padding='same',activation='relu'))
        #2 layers of conv2D with 128 filters
model3.add(Conv2D(128,(4,4),padding='same',activation='relu'))
model3.add(MaxPooling2D(2,2))

model3.add(Conv2D(256,(4,4),padding='same',activation='relu'))
        #2 layers of conv2D with 256 filters
model3.add(Conv2D(256,(4,4),padding='same',activation='relu'))


model3.add(Conv2D(256,(4,4),padding='same',activation='relu'))
        #2 layers of conv2D with 256 filters
model3.add(Conv2D(256,(4,4),padding='same',activation='relu'))
model3.add(MaxPooling2D(2,2))

model3.add(Flatten())

model3.add(Dropout(0.2))                                                #to
correct the overfitting that may be caused
```

```
model3.add(BatchNormalization())

model3.add(Dense(32,activation='relu'))
model3.add(Dropout(0.2))                                                    #to
correct the overfitting that may be caused
model3.add(BatchNormalization())

model3.add(Dense(32,activation='relu'))

model3.add(Dense(4,activation="Softmax"))

model3.summary()
```