

Model Building

Adding Dense Layer

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Project Name : Emerging Methods for early Detection Of forest fire

```
'''import model building libraries'''
```

```
#to define linear initialisation import sequential
```

```
from keras.models import Sequential
```

```
#to add layers import Dense
```

```
from keras.layers import Dense
```

```
#to create Convolution kernel import Covolution2D
```

```
from keras.layers import Convolution2D
```

```
#import Maxpooling Layer
```

```
from keras.layers import Dense
```

```
from keras.layers import Convolution2D
```

```
#import Flatten Layer
```

```
from keras.layers import Flatten
```

```
#import maxpooling layer
```

```
from keras.layers import MaxPooling2D
```

```
import warnings
```

```
warnings.filterwarnings('ignore')
```

```
#initializing model
```

```
model=Sequential()
```

Adding CNN Layer

Task 1:

```
#add cnn layer
```

```
model.add(Conv2D(filters=32,kernel_size=2,padding="same",activation  
="relu"))
```

```
model.add(MaxPooling2D(pool_size=2))
model.add(Conv2D(filters=64, kernel_size=2, padding="same", activation="relu"))
model.add(MaxPooling2D(pool_size=2))
```

Task 2:

#flattening layer

```
model.add(Flatten())
```

Task 3:

#Adding PoolingLayer

```
model.add(MaxPooling2D(pool_size=(2,2)))
```

Adding Dense Layer

#adding DenseLayer

```
model.add(Dense(500, activation="relu"))
```

```
model.add(Dense(2, activation="softmax"))
```

```
print("Adding dense layer on top")
```

```
model.add(layers.Dense(64, activation='relu'))
```

```
model.add(layers.Dense(10))
```

```
print("Complete architecture of the model")
```

```
model.summary()
```