



```
X = np.array(data)[: ,1:]  
y = keras.utils.to_categorical(np.array(data["admit"]))
```

Building the model architecture

And finally, we define the model architecture. We can use different architectures, but here's an example:

```
model = Sequential()  
model.add(Dense(128, input_dim=6))  
model.add(Activation('sigmoid'))  
model.add(Dense(32))  
model.add(Activation('sigmoid'))  
model.add(Dense(2))  
model.add(Activation('sigmoid'))  
model.compile(loss = 'categorical_crossentropy', optimizer='adam', metrics=['accuracy'])  
model.summary()
```

The error function is given by `categorical_crossentropy`, which is the one we've been using, but there are other options. There are several optimizers which you can choose from in order to improve your training. Here we use *adam*, but there are others that are useful, such as *rmsprop*. These use a variety of techniques that we'll outline in upcoming pages in this lesson.

The model summary will tell us the following:

Layer (type)	Output Shape	Param #
dense_57 (Dense)	(None, 128)	896
activation_50 (Activation)	(None, 128)	0
dense_58 (Dense)	(None, 32)	4128
activation_51 (Activation)	(None, 32)	0