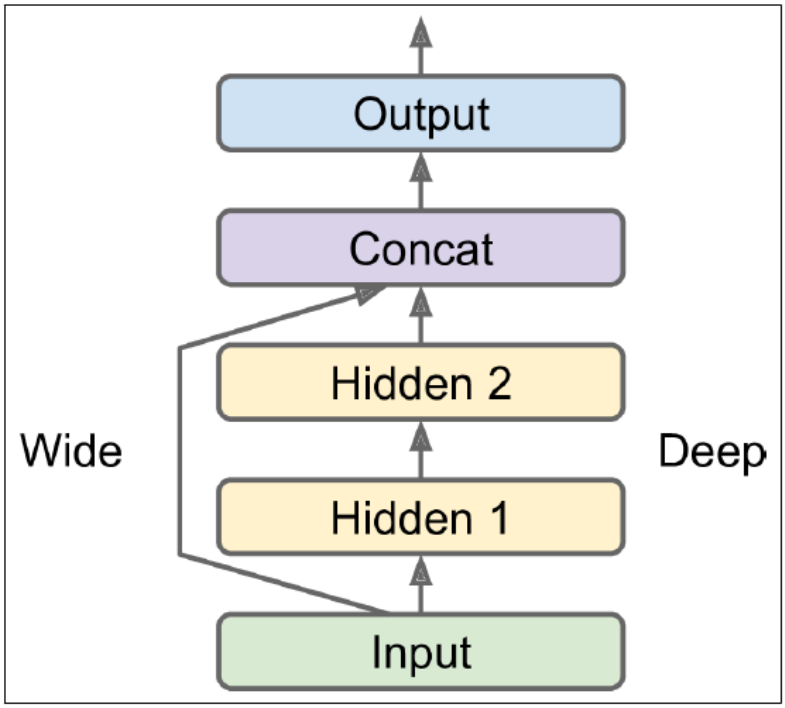
Assignment #3: **Deadline: 11/19/2020**

(Points: 100)

Q1 Please use the Fashion MNIST dataset in 'NeuN_Part_I code' to implement the following network along with batch normalization and dropout layers. Please refer to page 305 of your ML book for the example code on another dataset (also given below).

Let's build such a neural network to tackle the California housing problem:

```
input = keras.layers.Input(shape=X_train.shape[1:])
hidden1 = keras.layers.Dense(30, activation="relu")(input)
hidden2 = keras.layers.Dense(30, activation="relu")(hidden1)
concat = keras.layers.Concatenate()[input, hidden2])
output = keras.layers.Dense(1)(concat)
model = keras.models.Model(inputs=[input], outputs=[output])
```



Deliverables

1. Well documented code
2. Your observation and analysis on the impact on network training and validation accuracy.