```
from sklearn.tree import DecisionTreeRegressor, plot_tree
X = df2[['weight', 'male']].values
y = df2.height.values
fitcriterion = 'squared_error' # 'squared_error', "friedman_mse", "absolute_error", "poisson"
tree = DecisionTreeRegressor(criterion = fitcriterion,\
                                         max_depth = None,\
                                         max_leaf_nodes = 6).fit(X, y )
tree.tree_.node_count # number of terminal nodes
11
tree.tree_.max_depth
3
                                                                                                   X[1] \le 0.5
                                                                                               squared_error = 59.773
                                                                                                 samples = 352
                                                                                                 value = 154.597
tree.score(X, y) # R2
0.692347599184687
plot_tree(tree)
                                                                                 X[0] \le 43.02
                                                                                                                  X[0] \le 45.671
                                                                              squared error = 25.715
                                                                                                               squared error = 35.891
                                                                                samples = 187
                                                                                                                  samples = 165
                                                                                value = 149.514
                                                                                                                  value = 160.358
                                                                        X[0] \le 39.491
                                                                                                                          X[0] \le 52.602
                                                                                      squared_error = 19.031 squared_error = 22.853
                                                                      squared error = 16.687
                                                                                                                        squared error = 26.058
                                                                                          samples = 74
                                                                                                          samples = 45
                                                                        samples = 113
                                                                                                                          samples = 120
                                                                                         value = 153.03
                                                                                                         value = 155.015
                                                                        value = 147.21
                                                                                                                          value = 162.362
                                                             squared error = 14.254 squared error = 13.31
                                                                                                               squared error = 21.097 squared error = 19.414
                                                                samples = 72
                                                                                 samples = 41
                                                                                                                  samples = 80
                                                                                                                                   samples = 40
                                                                value = 145.953
                                                                                value = 149.418
                                                                                                                  value = 160.701
                                                                                                                                  value = 165.685
```