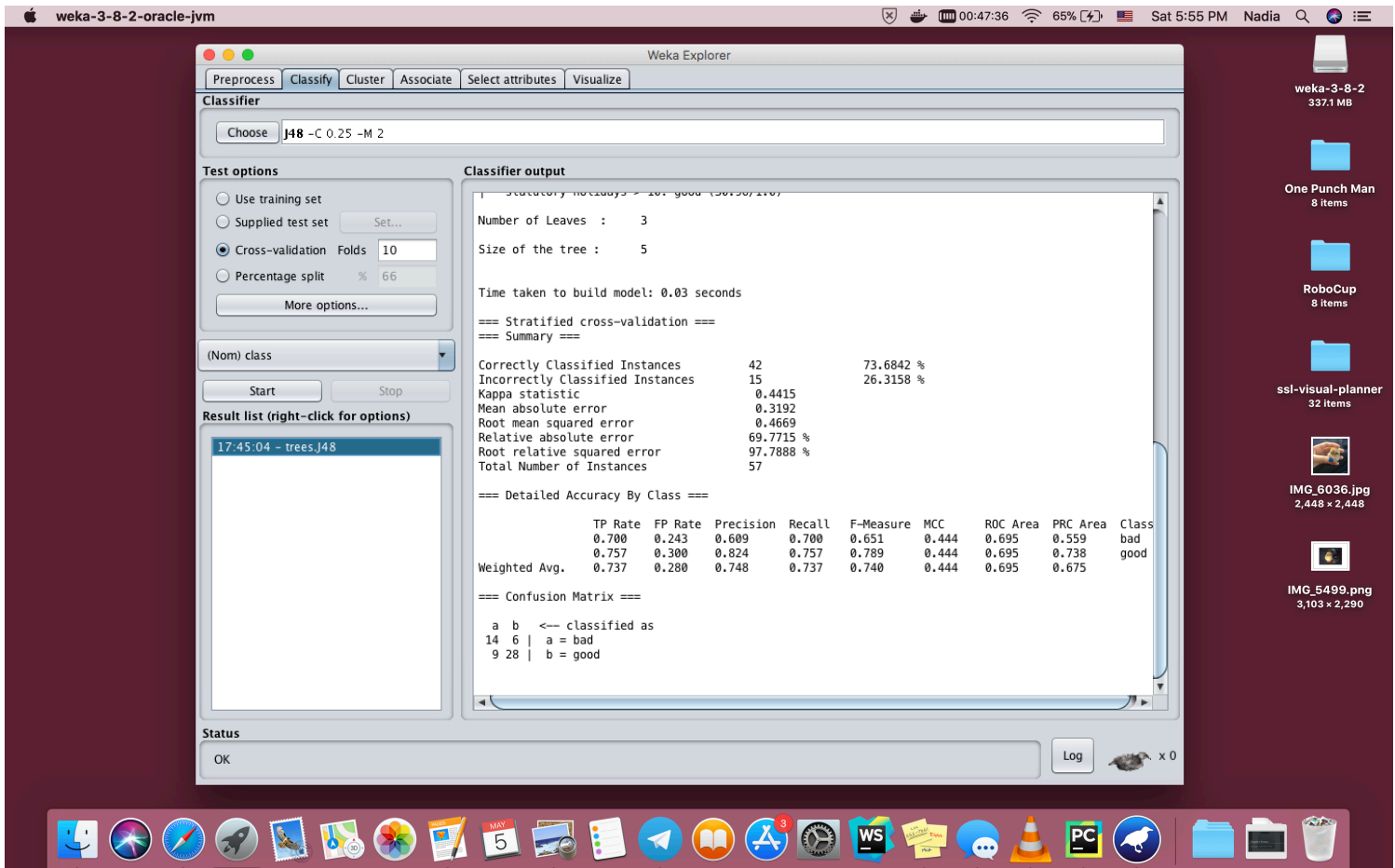## Weka Application

we classified Labor Dataset using Weka application and J48 classifier,
results have shown below:

Total Accuracy : 73.68

The confusion matrix:
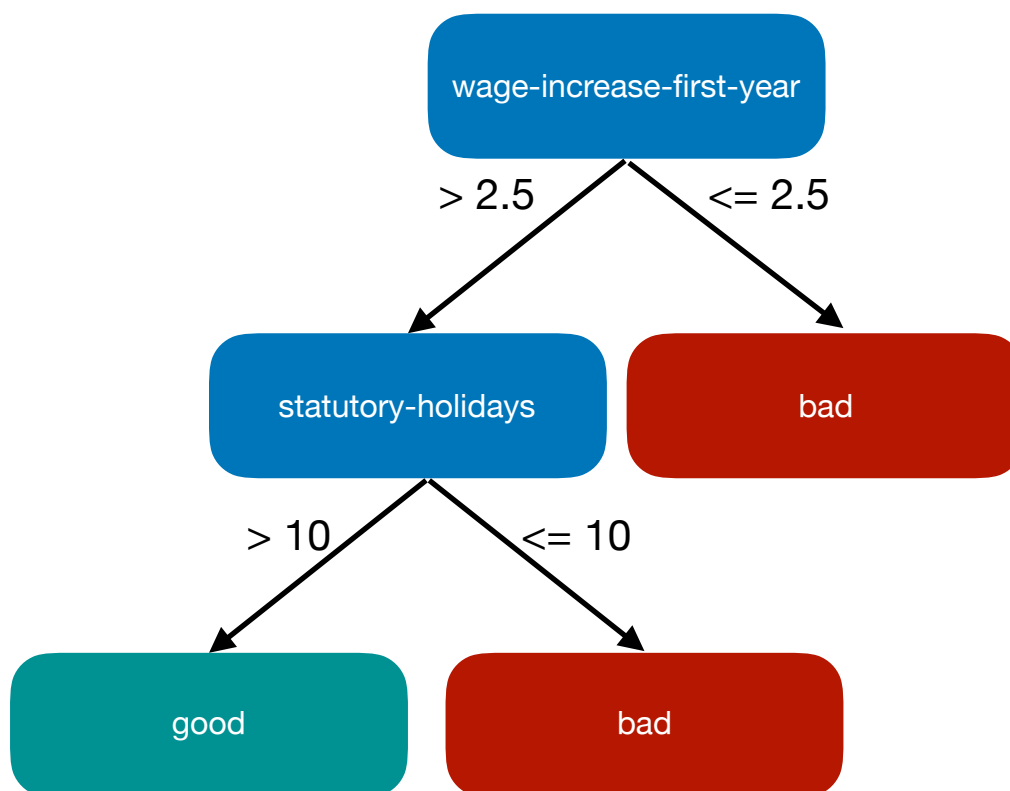
recall = #Tgood/(#Tgood + #Fbad)=28 / 34 =82.35%
precision = #Tgood/(#Tgood + #Fgood)=28 / 37 = 75.67 %

F1-Measure =2*(recall * precision) / (recall +precision) = 2 * (82.35*
75.67)/(82.35+ 75.67) = 2* 6231.42/158.02 =78.86%

```mermaid
graph TD
    A[wage-increase-first-year]
    A -->|> 2.5| B[statutory-holidays]
    A -->|<= 2.5| C[bad]
    B -->|> 10| D[good]
    B -->|<= 10| E[bad]
```

The given data at the homework would be classified in the good class.

we repeat done tasks using Decision Stump classifier :
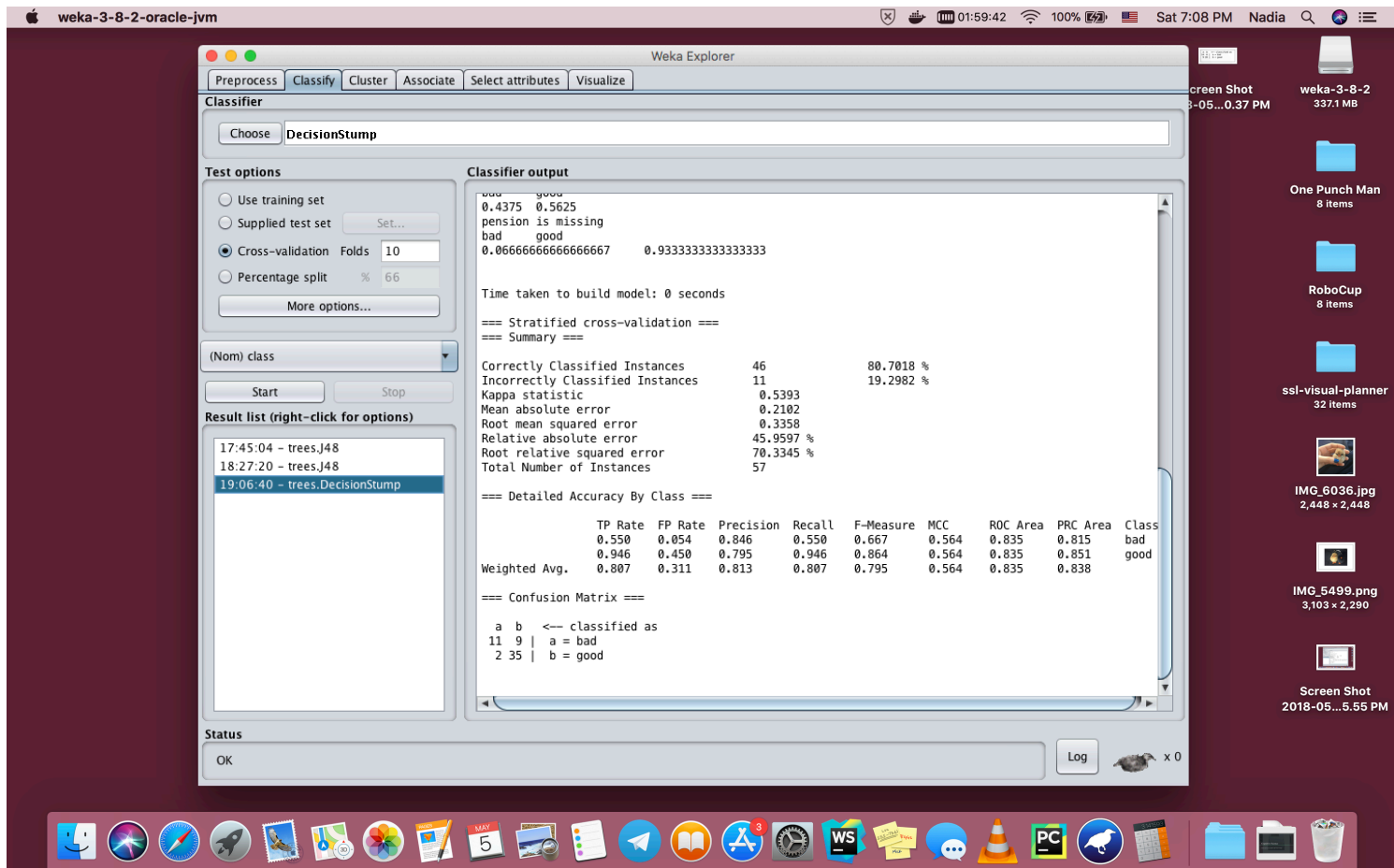
Total Accuracy : 80.70

The confusion matrix:

recall = #Tgood/(#Tgood + #Fbad)=35 / 44 =79.54%
precision = #Tgood/(#Tgood + #Fgood)=35 / 37 = 94.59%

F1-Measure =2*(recall * precision) / (recall +precision) = 2 * (79.54*
94.59)/(79.54+ 94.59) = 2* 7523.68/174.13 =86.41%

The given data at the homework would be classified in the good class.