

# CoIL Challenge 2000 submission

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I divided the data in three sets, and build a tree for each of them. I used C4.5, and created new attributes.

The explanation for the marketing people is the following :

There are tree clusters of people :

1. People who is not a customer
2. People who is a customer and has a car policy.
3. People who is a customer and don't have a car policy.

I built a model for each of the three segments, and found this :

Cluster 3 has a very low probability of having a caravan, 3 times less than the average. In this group, people who own a mopped, have more than 60 years, have `social_class_A`  $\geq$  50% or `social_class_D`  $\geq$  24% ( too rich or too poor ) or have `farmer`  $\geq$  11% have a much more lower probability,  $p = 0$

In cluster 2, people having a boat, or having a fire policy have a greater than average probability of buying a caravan policy. The most important attribute, was a derived one, named 'average car policy contribution' that resulted from `c_car_policies/n_car_policies`. Having a large value for this attribute means a greater probability of having a caravan.

In cluster 1, married people, skilled labourers or large families ( but not rural ones) have the best chances.