

Problem Set 02

1. Scotts

Decide (by hand and WEKA) whether Logan is Scottish based on the following attributes and using a Naïve Bayes classifier. Logan likes shortbread, drinks whiskey and eats porridge but doesn't like lager and doesn't watch soccer. Bonus: use a smoothing technique.

| Sample | Attributes | | | | | Scottish |
|--------|------------|-------|---------|----------|--------|----------|
| | Shortbread | Lager | Whiskey | Porridge | Soccer | |
| S01 | No | No | Yes | Yes | Yes | No |
| S02 | Yes | No | Yes | Yes | Yes | No |
| S03 | Yes | Yes | No | No | Yes | No |
| S04 | Yes | Yes | No | No | No | No |
| S05 | No | Yes | No | No | Yes | No |
| S06 | No | No | No | Yes | No | No |
| S07 | Yes | No | Yes | Yes | Yes | Yes |
| S08 | No | Yes | No | No | Yes | Yes |
| S09 | Yes | Yes | Yes | Yes | No | Yes |
| S10 | Yes | Yes | No | Yes | No | Yes |
| S11 | Yes | Yes | No | Yes | Yes | Yes |
| S12 | Yes | No | Yes | Yes | No | Yes |
| S13 | Yes | No | Yes | No | No | Yes |