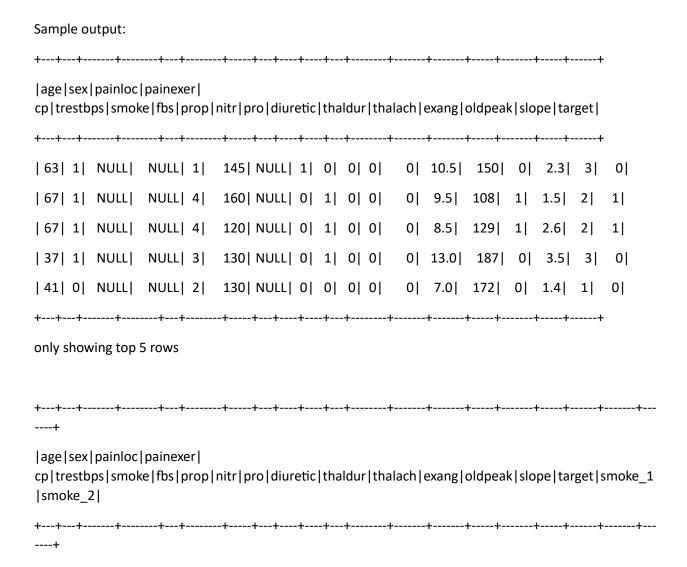
HW3.ipynb contains the entirety of the code for this assignment.

The only possible algorithms to discuss here are, once again, like in HW2, how I webscraped from abs.gov.au.

- 1. Get data from link
- 2. Parse data from link using BeautifulSoup
- 3. Search1 = Data.Find\_All(divs with chart/table pairs) 4. Body = Search1[Relevant table].Find All(table wrapper) 5. For Row in Body:
  - a. Interpret age range using Row head
  - b. Assign value = data from Row in 2022 column
  - c. Modify dataframe such that null values in new smoke column are now value when age is within range
- 6. Return modified dataframe



63  1  0.149 0.19	•	1  1	145   NULL   1	0	0  0	0	10.5	150	0	2.3	3	0
67  1  0.087 0.11	•	1  4	160  NULL  0	1	0  0	0	9.5	108	1	1.5	2	1
67  1  0.087 0.11	•	1  4	120  NULL  0	1	0  0	0	8.5	129	1	2.6	2	1
37  1  0.165	1	1  3	130  NULL  0	1	0  0	0	13.0	187	0	3.5	3	0  0.109
41  0  0.125	1	1  2	130  NULL  0	0	0  0	0	7.0	172	0	1.4	1	0  0.109
++ +	+	++-	+	+	++	+-	+	+	+	+	+	+

only showing top 5 rows

Log regression: 0.8727598566308244

Random Forest: 0.8697729988052568