

Tasks:

- **(10 points)** Parse a dataset similar to the restaurants.txt and be able to pull out selected data (e.g. label for column #3, value for a column for a particular case #, etc.)
- **(20 points)** Implement the ID3 algorithm on a dataset structured like the restaurants.txt file.
- **(10 points)** Display the resulting tree in a simple format (like this)

```

Price [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11]
  $$$ =>      Friday? [0, 4, 9]
    Yes =>      False [4, 9]
    No  =>      True  [0]
  $  =>      EstWaitTime [1, 2, 3, 6, 8, 10, 11]
    0-10 =>      Bar? [2, 6, 10]
      Yes =>      #Patrons [2, 6]
        Some =>      True [2]
        None =>      False [6]
      No  =>      False [10]
    >60 =>      False [8]
    30-60 =>      Bar? [1, 11]
      Yes =>      True [11]
      No  =>      False [1]
    10-30 =>      True [3]
  $$ =>      True [5, 7]

```

-or- (you only get points for one of these)

- **(20 points)** Display the resulting text in something more pretty. Some ideas:
 - A graph-vis-generated chart (like on the slides)
 - ...
- **(20 points)** Prune the tree
- **(10 points)** Make your data-parsing more fault-tolerant (e.g. missing data fields, bogus values, etc.). I can suggest a web-site with “real” data for you to use.