

EXERCISE 3

Let's try use some of the things we learnt in the last section. If you get stuck at any point put your hand up and I'll come over to help.

1. Create a document `packages.tex` in the `sage_latex` folder.
2. In `packages.tex` recreate the following table with the help of the `booktabs` package:

	£m	\$m (exchange rate as of 31.07.2018)
Funding Council Grants	70.0	91.7
Academic fees and support grants	252.4	330.6
Research grants and contracts	109.4	143.3
Other operating income	73.7	95.5
Endowment income and interest	5.6	7.3
Total	511.1	669.5

Table 1: Newcastle University income (year ended 31 July 2018)

3. Add a label to the table and refer to it in the text “See Table 1”, using the `cleveref` package. *Recall:* labels must be attached to the caption of the table.
4. Add the `hyperref` package to the document's preamble. Compile `packages.tex`. *Note:* `hyperref` must be loaded before `cleveref` in the preamble.
5. Take a look at [this list of options that](#) `hyperref` can take. Pass options to `hyperref` so that:
 - (a) Links do not display with boxes around them
 - (b) Links are indicated by coloured text
 - (c) All links are coloured magenta

Hint: take a look at the options `hidelinks`, `colorlinks` and `allcolors`.

6. *Harder:* Download [this dataset](#). On a new page use `pgfplotstable` to read in `titanic35.csv` and construct a table from the data. Once you have this then you should:
- (a) Wrap `pgfplotstabletypeset` in a `table` environment
 - (b) Insert a `toprule` before the header row, and a `midrule` after the header row.
 - (c) Insert a `bottomrule` after the last row.
 - (d) Style the Fare column so that all the fares are shown to two decimal places.
 - (e) Align the entries in the Fare column by their decimal point. *Hint:* pass the argument `dec sep align` to the Fare column style.
 - (f) Style the Age column so that the ages are formatted as integers.
 - (g) Right align the content in the Sex column and the Age column.
 - (h) Add a table stripe to every even row. *Hint:* Check out the `every even row` argument, and include `\usepackage[table]{xcolor}` in your preamble.