Including charts in RMarkdown

This document is designed to demonstrate how the size of figures can be set in RMarkdown documents. There are two types of content included:

- Base R plots
- ggplot2 charts

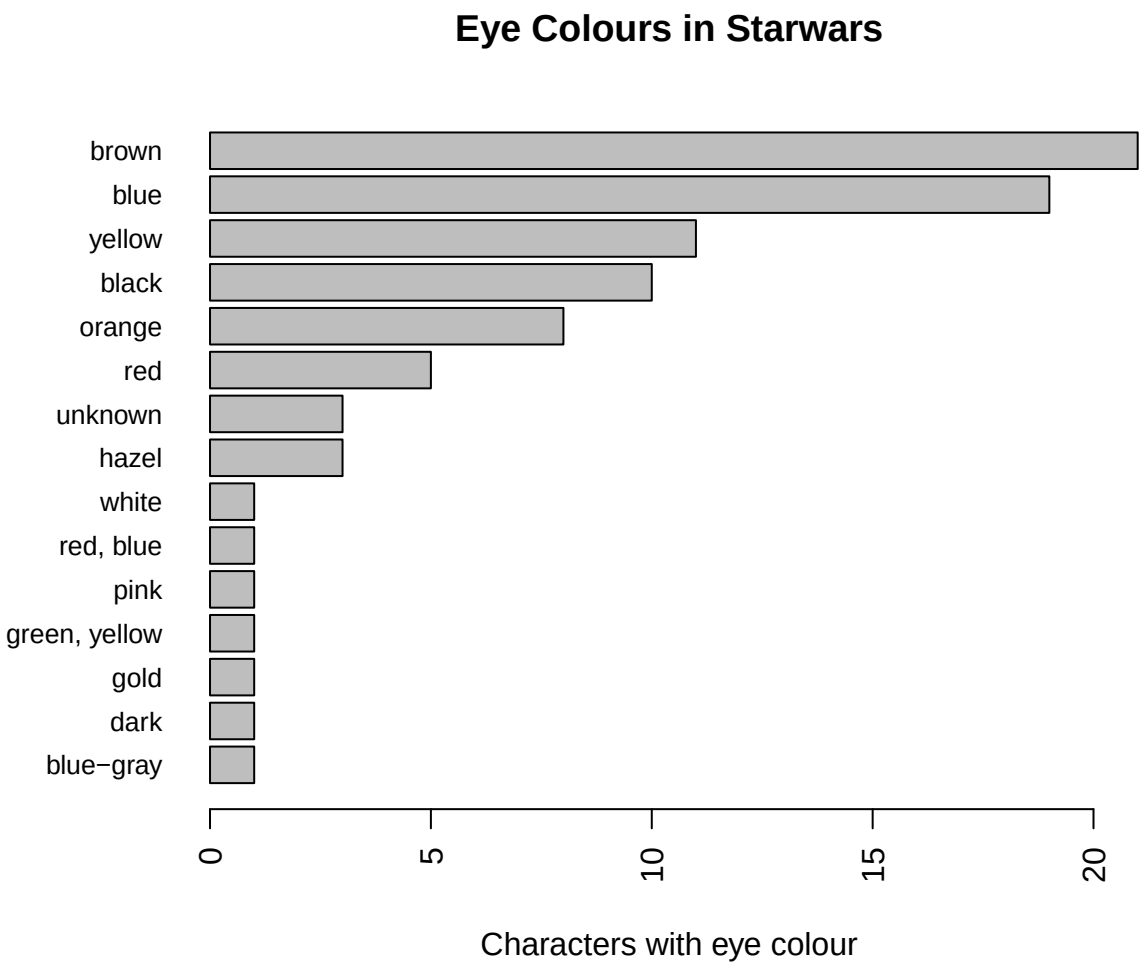
All charts are generated from the `starwars` dataset in the `dplyr` package. We'll load the `tidyverse` package now so that we can use the tidyverse in all three sections of this document.

```
library("tidyverse")
```

Base R Charts

Base R plots are created with functions from the `graphics` package, for instance `boxplot()`.

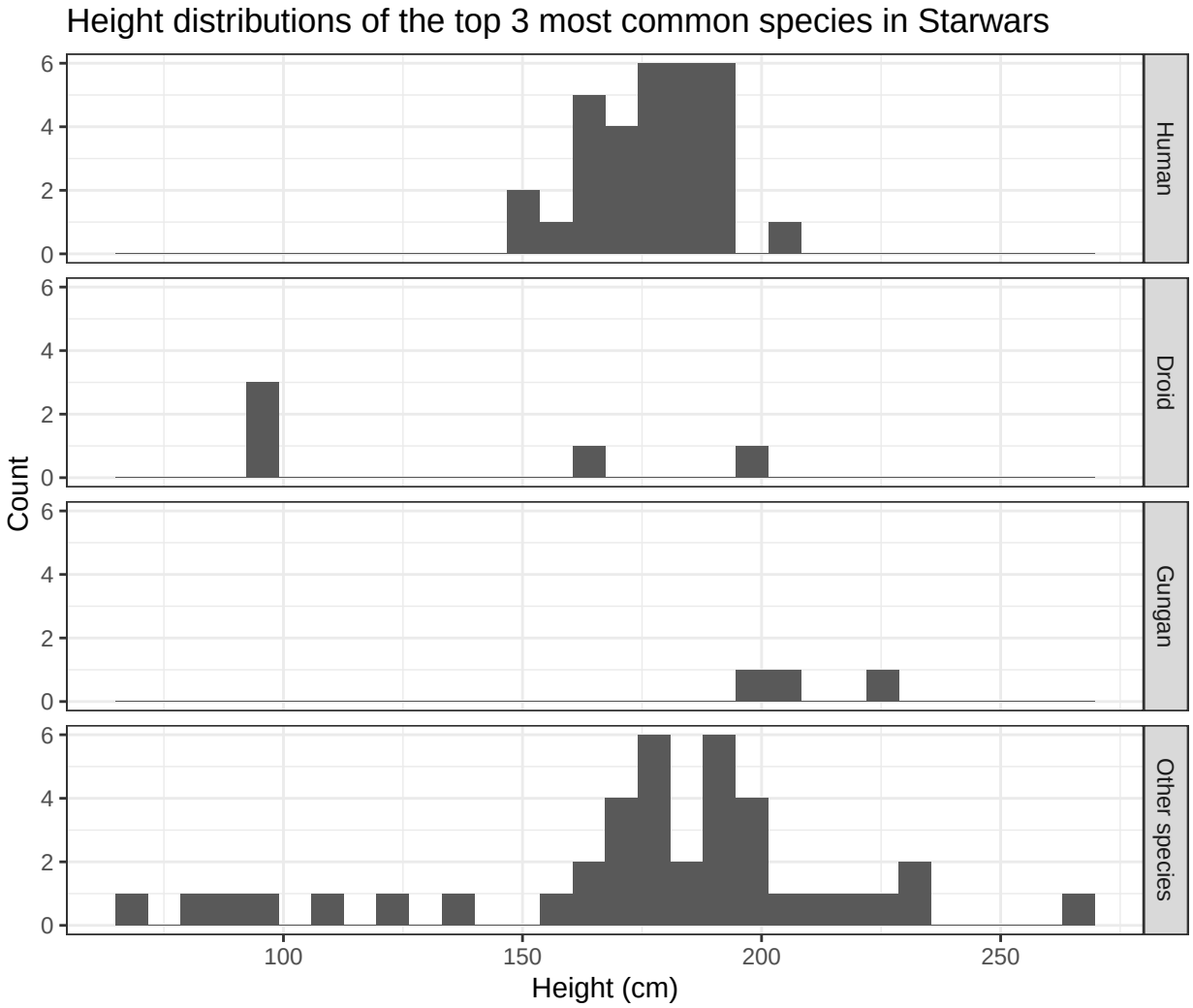
```
starwars_hair_colours <- starwars %>%
  count(eye_color) %>%
  arrange(n)
par(mar=c(bottom = 5.1, left = 6, top =4.1, right = 2.1))
barplot(starwars_hair_colours$n,
        names.arg = starwars_hair_colours$eye_color,
        main="Eye Colours in Starwars",
        xlab="Characters with eye colour",
        horiz = TRUE,
        cex.names=0.8,
        las=2,
        beside = TRUE)
```



ggplots Charts

ggplot2 provides an extremely powerful and flexible grammar of graphics for creating almost any type of chart.

```
starwars %>%
  filter(!is.na(species)) %>%
  group_by(species = fct_lump(species, 3, other_level = "Other species")) %>%
  mutate(n_species = n()) %>%
  ungroup() %>%
  mutate(species = fct_reorder(species, n_species),
         species = species %>% fct_rev(),
         species = fct_relevel(species, "Other species", after = Inf)) %>%
  select(species, n_species, height) %>%
  ggplot(aes(x = height)) +
  geom_histogram() +
  facet_grid(species ~.) +
  theme_bw() +
  labs(x = "Height (cm)",
       y = "Count",
       title = "Height distributions of the top 3 most common species in Starwars")
```


Height distributions of the top 3 most common species in Starwars
Count
Height (cm)
Human
Droid
Gungan
Other species
0
2
4
6
100
150
200
250