Introduction to ggplot2: Creating simple publication quality figures

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scatter plot age by tumour size - color by sex - color by hospital - size by grade

boxplots

proportion as age increases

km curves

HR figures (catipillar plot)

Packages and working directory

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.1.2     v dplyr   1.0.6
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(formatR)
```

```
db <- read.csv("C:/Users/matth/Documents/R/R code and education/Tutorials/Datasets/generic_cancer.csv")
```

```
head(db)
```

```
##      male pt_id age high_grade adverse_tumour_marker tumour_size diabetes
## 1    Male     1  62         No                    No        0.41       No
## 2    Male     2  57         No                    No        2.84       No
## 3  Female     3  66         No                    No        3.35       No
## 4    Male     4  54         No                    No        4.63       No
## 5    Male     5  49         No                    No        1.29       No
## 6    Male     6  63         No                   Yes        1.99       No
##   heart_disease            hospital extended_resection postop_complication
## 1            No Community hospital                 Yes                 Yes
## 2            No Community hospital                  No                  No
## 3            No Community hospital                  No                 Yes
```

```
## 4           Yes Community hospital            No            Yes
## 5            No Community hospital            No             No
## 6            No  Academic hospital           Yes            Yes
##   vital_status follow_up
## 1        Alive        58
## 2         Died        52
## 3         Died        33
## 4        Alive        58
## 5        Alive        56
## 6        Alive        41
```