lubridate Practical Solutions

Jumping Rivers

As usual, let's load the packages and data needed for this practical.

```
library("dplyr")
library("lubridate")
data(okcupid, package = "jrTidyverse")
```

When were you born? (you can lie if you want to)

1. Store your birth date as a character variable i.e.

   ```
   bday = "11/04/1967"
   ```

2. Convert it into a date object using `dmy`

   ```
   bday = dmy(bday)
   ```

3. Which day of the week were you born on? Hint: Use `wday()`. Notice R returns the weekday as a number. To clarify this, set the argument `label` equal to `TRUE` inside `wday`.

   ```
   wday(bday, label = TRUE)
   ```

   ```
   ## [1] Tue
   ## Levels: Sun < Mon < Tue < Wed < Thu < Fri < Sat
   ```

4. Using the `year()` function, change the year of your date object to your next birthday. What day is that on?

```
year(bday) = 2018
wday(bday, label = TRUE)
```

```
## [1] Wed
## Levels: Sun < Mon < Tue < Wed < Thu < Fri < Sat
```

5. How many days is it until your next birthday? What about seconds since you were born? Hint: Use `interval` then use the `unit` argument inside `as.period()`

```
today = today()
as.period(interval(today, bday), unit = "year")
```

```
## [1] "-7m -9d 0H 0M 0S"
```

```
as.period(interval(today, bday), unit = "day")
```

```
## [1] "-223d 0H 0M 0S"
```

```
as.period(interval(today, bday), unit = "seconds")
```

```
## [1] "-19267200S"
```

OKCupid

Take our OKcupid data, let's say we want to look at the distribution of the weekday of people's last online time. Effectively asking the question "Which day of the week do people use OKCupid most on?"

1. Using `mutate()` and `ymd_hms()` convert the `last_online` column to a proper date. Hint, remember to set the time zone in the `ymd_hms()` via `tz = "America/Los_Angeles"`.

```
okcupid = okcupid %>%
  mutate(last_online = ymd_hms(last_online, tz = "America/Los_Angeles"))
```

2. Create a new column called `week_day` that contains the day of the week a user accessed OKCupid. Hint: use `mutate()` and `wday()`

```
okcupid = okcupid %>%
    mutate(week_day = wday(last_online, label = TRUE))
```

3. Which day of the week is most common?

```
okcupid %>%
  count(week_day)
```

```
## # A tibble: 7 x 2
##   week_day     n
##   <ord>    <int>
## 1 Sun       1300
## 2 Mon       1092
## 3 Tue       1170
## 4 Wed       1277
## 5 Thu       1446
## 6 Fri       2183
## 7 Sat       3036
```