Assignment 8.0

Select the following packages

```
library(readr)
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----------------------- tidyverse 2.0.0 --
## v dplyr     1.1.4     v purrr     1.0.4
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.1     v tibble    3.2.1
## v lubridate 1.9.4     v tidyr     1.3.1
## -- Conflicts ----------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(dplyr)
library(janitor)
```

```
##
## Attaching package: 'janitor'
##
## The following objects are masked from 'package:stats':
##
##     chisq.test, fisher.test
```

```
library(lubridate)
```

a.

```
guitars <- read_csv("guitars2.csv") |>
  mutate(
    `Purchase Price` = parse_number(`Purchase Price`),
    `Insured Value` = parse_number(`Insured Value`),
    `Purchase Date` = as.Date(`Purchase Date`, format = "%Y-%m-%d")) |>
  select(-starts_with("Weight"))
```

```
## Rows: 8 Columns: 13
## -- Column specification -------------------------------------------------------
## Delimiter: ","
## chr (10): Type, Body, Manufacturer, Model, Color, Serial, Purchase Date, Pur...
## dbl  (3): Year, Weight with Case (kg), Weight of Case (kg)
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```r
guitars
```

```
## # A tibble: 8 x 11
##   Type     Body    Manufacturer Model           Year Color  Serial  `Purchase Date`
##   <chr>    <chr>   <chr>        <chr>          <dbl> <chr>  <chr>   <date>
## 1 electric solid   Gibson       Firebird        1972 sunbu~ 616619  NA
## 2 electric solid   Gibson       Les Paul        1976 wine   00235~  1976-09-14
## 3 electric hollow  Gibson       ES175           2002 sunbu~ 03531~  2012-10-01
## 4 electric solid   Fender       Stratocaster    2006 black  EJ152~  2014-06-20
## 5 electric solid   Fender       Telecaster      2007 blonde 60671   2014-05-07
## 6 acoustic flattop Gibson       J-100 Xtra      1993 natur~ 90783~  1995-01-14
## 7 acoustic flattop Martin       M-21            2010 natur~ 14528~  2022-08-09
## 8 acoustic flattop Martin       D-28            2020 natur~ 24579~  2022-09-10
## # i 3 more variables: `Purchased New` <chr>, `Purchase Price` <dbl>,
## #   `Insured Value` <dbl>
```

```r
# There isn't any warning message, and everything looks alright.

# I'll try another way to produce a warning message
guitars2 <- read_csv("guitars2.csv",
  col_select = !starts_with("Weight"),
  col_types = cols(
    `Purchase Price` = col_double(),
    `Insured Value` = col_double(),
    `Purchase Date` = col_date(),
    .default = col_character()))
```

```
## Warning: One or more parsing issues, call `problems()` on your data frame for details,
## e.g.:
##   dat <- vroom(...)
##   problems(dat)
```

```r
# Now, there is an error message
# This is because of the values in "Purchase Price", "Insured Value"
# e.g. $6000 isn't a valid numeric value, hence parsing fails.
guitars2
```

```
## # A tibble: 8 x 11
##   Type     Body    Manufacturer Model          Year  Color  Serial  `Purchase Date`
##   <chr>    <chr>   <chr>        <chr>          <chr> <chr>  <chr>   <date>
## 1 electric solid   Gibson       Firebird       1972  sunbu~ 616619  NA
## 2 electric solid   Gibson       Les Paul       1976  wine   00235~  1976-09-14
## 3 electric hollow  Gibson       ES175          2002  sunbu~ 03531~  2012-10-01
## 4 electric solid   Fender       Stratocaster   2006  black  EJ152~  2014-06-20
## 5 electric solid   Fender       Telecaster     2007  blonde 60671   2014-05-07
## 6 acoustic flattop Gibson       J-100 Xtra     1993  natur~ 90783~  1995-01-14
## 7 acoustic flattop Martin       M-21           2010  natur~ 14528~  2022-08-09
## 8 acoustic flattop Martin       D-28           2020  natur~ 24579~  2022-09-10
## # i 3 more variables: `Purchased New` <chr>, `Purchase Price` <dbl>,
## #   `Insured Value` <dbl>
```

b.

```
guitars <- clean_names(guitars)
guitars
```

```
## # A tibble: 8 x 11
##   type    body  manufacturer model  year color serial purchase_date purchased_new
##   <chr>   <chr> <chr>        <chr> <dbl> <chr> <chr>  <date>        <chr>
## 1 elect~ solid Gibson       Fire~  1972 sunb~ 616619 NA            No
## 2 elect~ solid Gibson       Les ~  1976 wine  00235~ 1976-09-14    Yes
## 3 elect~ holl~ Gibson       ES175  2002 sunb~ 03531~ 2012-10-01    No
## 4 elect~ solid Fender       Stra~  2006 black EJ152~ 2014-06-20    No
## 5 elect~ solid Fender       Tele~  2007 blon~ 60671  2014-05-07    No
## 6 acous~ flat~ Gibson       J-10~  1993 natu~ 90783~ 1995-01-14    No
## 7 acous~ flat~ Martin       M-21   2010 natu~ 14528~ 2022-08-09    No
## 8 acous~ flat~ Martin       D-28   2020 natu~ 24579~ 2022-09-10    No
## # i 2 more variables: purchase_price <dbl>, insured_value <dbl>
```

c.

```
guitars$purchase_date[guitars$serial == "616619"] <- as.Date("1977-07-02")
guitars
```

```
## # A tibble: 8 x 11
##   type    body  manufacturer model  year color serial purchase_date purchased_new
##   <chr>   <chr> <chr>        <chr> <dbl> <chr> <chr>  <date>        <chr>
## 1 elect~ solid Gibson       Fire~  1972 sunb~ 616619 1977-07-02    No
## 2 elect~ solid Gibson       Les ~  1976 wine  00235~ 1976-09-14    Yes
## 3 elect~ holl~ Gibson       ES175  2002 sunb~ 03531~ 2012-10-01    No
## 4 elect~ solid Fender       Stra~  2006 black EJ152~ 2014-06-20    No
## 5 elect~ solid Fender       Tele~  2007 blon~ 60671  2014-05-07    No
## 6 acous~ flat~ Gibson       J-10~  1993 natu~ 90783~ 1995-01-14    No
## 7 acous~ flat~ Martin       M-21   2010 natu~ 14528~ 2022-08-09    No
## 8 acous~ flat~ Martin       D-28   2020 natu~ 24579~ 2022-09-10    No
## # i 2 more variables: purchase_price <dbl>, insured_value <dbl>
```

d.

```
guitars$purchase_year <- year(guitars$purchase_date)
guitars$purchase_month <- month(guitars$purchase_date, label = TRUE, abbr = TRUE)
guitars
```

```
## # A tibble: 8 x 13
##   type    body  manufacturer model  year color serial purchase_date purchased_new
##   <chr>   <chr> <chr>        <chr> <dbl> <chr> <chr>  <date>        <chr>
## 1 elect~ solid Gibson       Fire~  1972 sunb~ 616619 1977-07-02    No
## 2 elect~ solid Gibson       Les ~  1976 wine  00235~ 1976-09-14    Yes
## 3 elect~ holl~ Gibson       ES175  2002 sunb~ 03531~ 2012-10-01    No
## 4 elect~ solid Fender       Stra~  2006 black EJ152~ 2014-06-20    No
## 5 elect~ solid Fender       Tele~  2007 blon~ 60671  2014-05-07    No
## 6 acous~ flat~ Gibson       J-10~  1993 natu~ 90783~ 1995-01-14    No
## 7 acous~ flat~ Martin       M-21   2010 natu~ 14528~ 2022-08-09    No
## 8 acous~ flat~ Martin       D-28   2020 natu~ 24579~ 2022-09-10    No
## # i 4 more variables: purchase_price <dbl>, insured_value <dbl>,
## #   purchase_year <dbl>, purchase_month <ord>
```