

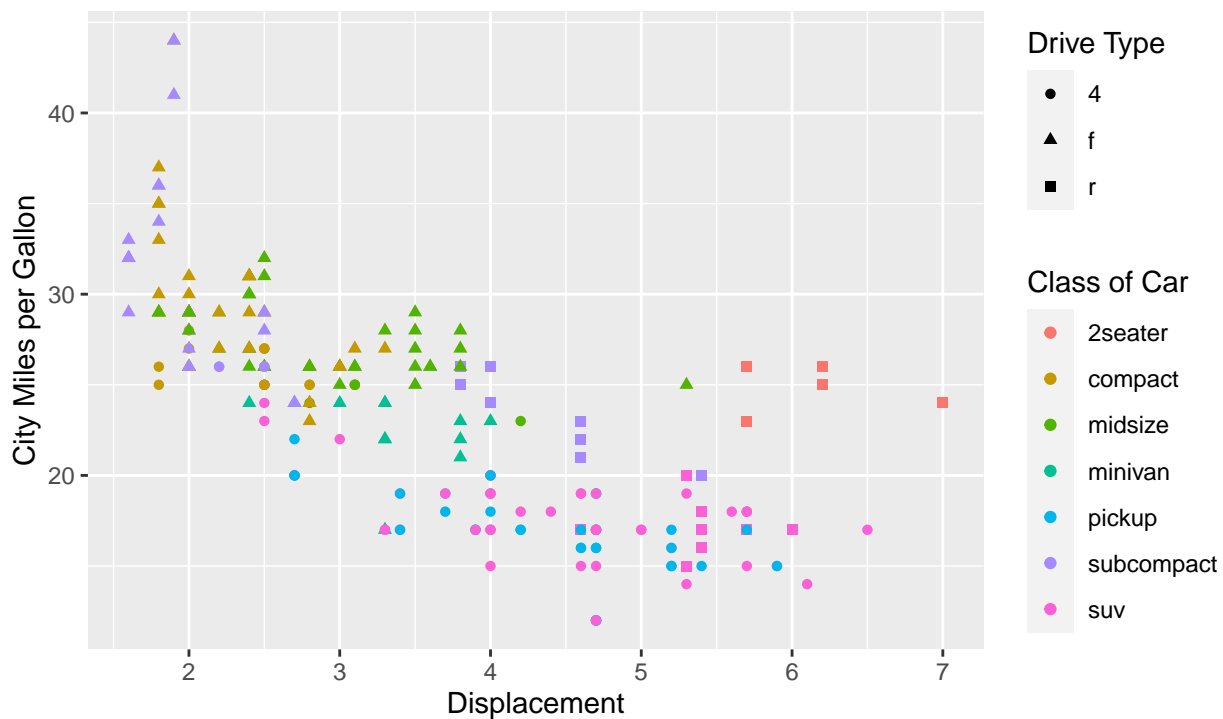
Problem Sheet 6a - CT5102

Visualisation with ggplot2

1. Generate the following plot from the `mpg` tibble in `ggplot2`. The x-variable is `displ` and the y-variable `cty`. Make use of the `lab()` and `theme()` functions.

Exploring the relationship between displacement and city MPG

With car class and drive information



Based on the mpg dataset in ggplot2

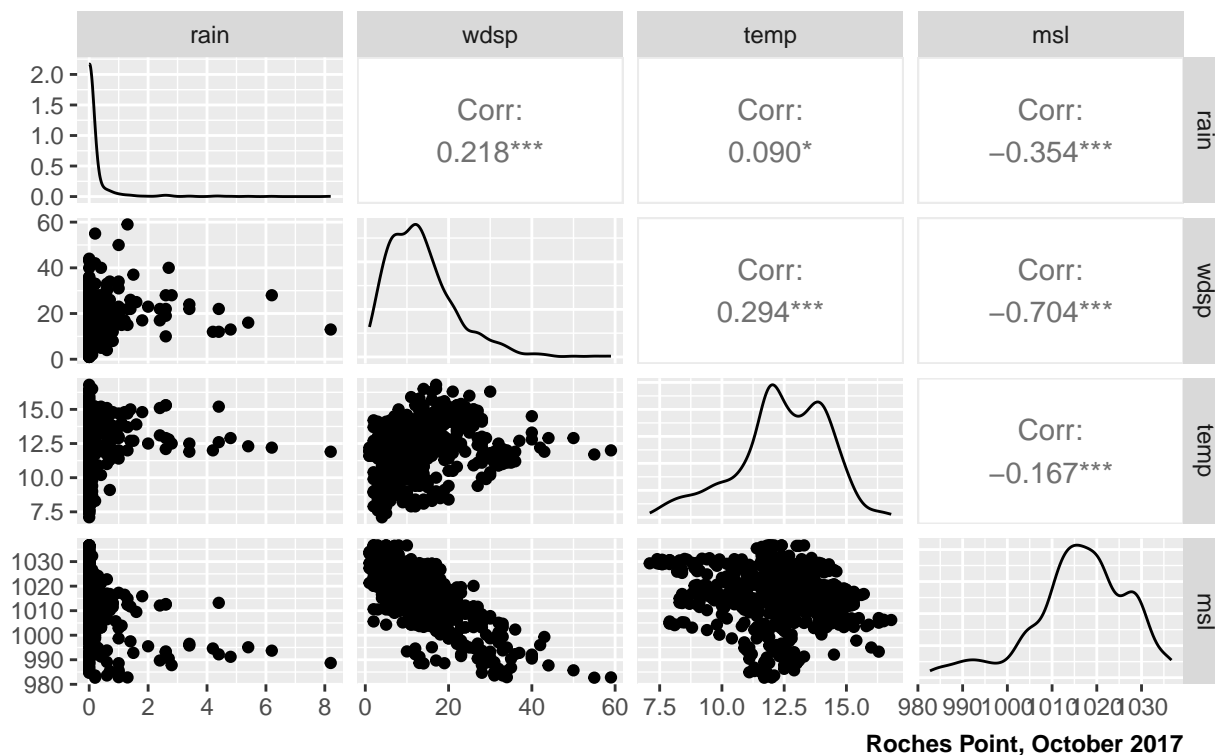
2.

Use `ggpairs()` to explore a subset of the Irish weather data set (`aimsir17`), and the possible relationships between the variables `rain`, `wdsp`, `temp` and `msl`. Use the station "ROCHES POINT" and all the observations from the month of October (month 10), which can be retrieved using the `subset()` function.

```
## Registered S3 method overwritten by 'GGally':
##   method from
##   +.gg      ggplot2
```

Exploring relationships between Irish weather variables

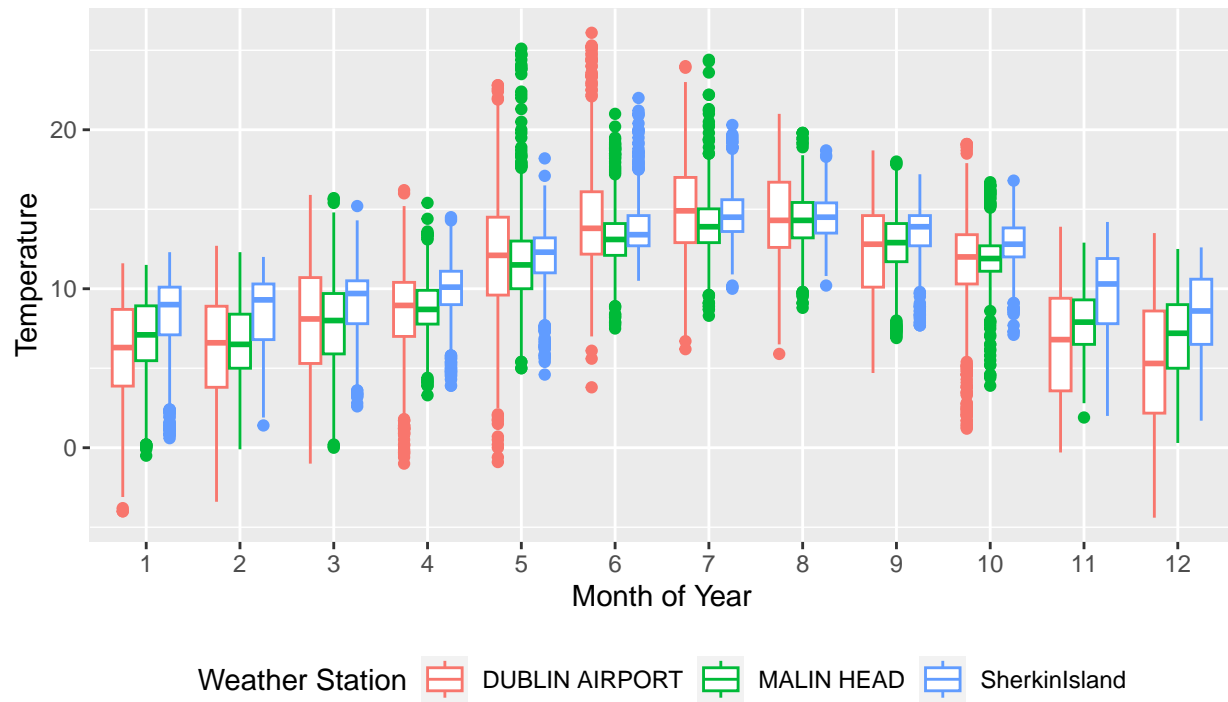
Rainfall, Windspeed, Temperature and Mean Sea Level Pressure



- Using the function `subset()`, extract observations for three weather stations DUBLIN AIRPORT, MALIN HEAD and SherkinIsland, and generate the following comparative temperature box plot summaries over the twelve months of the year. In the plot, convert the month variable to a factor value, using the function `factor()`.

Summarise of monthly temperature in 2017

For stations Dublin Airport (E), Malin Head (N) and Sherkin Island (S)



Based on the observations dataset in aimsir17