

MLW / KUHeS Statistics and R short course

Module 2 - Practical

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Question 1

Using the iris dataset (type `?iris`) to get more information about this dataset) that comes pre-loaded with R, produce the following figures:

- i. Produce histograms for each of `Sepal.Length`, `Sepal.Width`, `Petal.Length`, `Petal.Width` using `ggplot2` (tidyverse R) libraries.
- ii. Produce a bar plot for `Species`.
- iii. Produce box and whisker plots for each of the 4 continuous variables. Put them all on a single, multi-panel figure.
- iv. Repeat for just `Sepal.Length` using a violin plot, stratifying by `Species`.
- v. Produce a single graph (not multi-panel) that has histograms for `Sepal.Length` for each of the 3 flower species.
- vi. There are 4 continuous variables. This means there are 6 possible pairs of these. For each such pair, produce a scatter plot of one variable against the other and highlight the different flower species by using a different colour for each species.

Question 2

For part iv above, label your figure properly with appropriate font sizes and change the theme background.

Finally, save your figure to disk according to the following guidelines

- i. TIFF format (To get more details, type `?ggsave`).
- ii. Width 789 - 2250 pixels at 300 dpi.
- iii. Height maximum 2625 pixels at 300 dpi.