Introduction to R

Worksheet

Day 2

1. **Import the dataset**: Read the `Crop_recommendation.csv` file into R using the appropriate function.
2. **Summarise the dataset**: Use the `dplyr` package to summarise the dataset, displaying the mean, median, and standard deviation for the columns `temperature`, `humidity`, and `rainfall`.
3. **Count unique crop types**: Use `count` to determine how many unique crop types (`label`) are in the dataset and their frequencies.
4. **Filter the data**: Filter the rows where `N` (Nitrogen content) is greater than 80 and `ph` is between 6.5 and 7.5.
5. **Create a new column**: Use `mutate` to create a new column called `water_requirement` that categorises `rainfall` into "Low" (`< 150`), "Medium" (`150--250`), and "High" (`> 250`).
6. **Rename a column**: Rename the column `ph` to `soil_ph` using `rename`.
7. **Select specific columns**: Use `select` to create a new dataset with only the columns `N`, `P`, `K`, and `label`.
8. **Group by and summarise**: Group the data by `label` and calculate the average `temperature` and `humidity` for each crop type.
9. **Arrange the data**: Arrange the dataset by `rainfall` in descending order and display the top 5 rows.
10. **Subset using conditions**: Filter and display crops that have both `N` greater than 60 and `K` less than 50.

Thank you!