

Assignment 3: Volcanic Eruptions

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```
eruptions <- read_csv("eruptions_dataset.csv")
```

```
## Rows: 103 Columns: 16
## -- Column specification -----
## Delimiter: ","
## chr  (4): name, location, country, type
## dbl (12): year, month, day, latitude, longitude, elevation, VEI, deaths, mis...
##
## 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.
```

Exercise 1

CSV (Comma-Separated Values) is a simple text format that stores data separated by commas. Each row represents one record (observation), and each column represents a variable (attribute). The file size is small and it is easy to read and write in various tools such as Excel, R, and Python, so it is highly compatible. However, if commas are included in the value, attention should be paid to quotation processing, encoding differences, and line modulation problems.

Exercise 2

Exercise 3

Exercise 4

Exercise 5

Exercise 6

Exercise 7

Exercise 8

Exercise 9