# Data Cleaning With R: Takeaways 🖻

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## **Syntax**

### MANIPULATING COLUMNS USING THE DPLYR PACKAGE:

• Converting a single column to numeric:

```
data_frame <- data_frame %>%
mutate(`col name` = as.numeric(`col name`))
```

• Converting multiple columns to numeric with column names:

```
data_frame <- data_frame %>%
mutate_at(vars(`col name 1`: `col name 5`), as.numeric)
```

• Converting multiple columns to numeric with column indexes:

```
data_frame <- data_frame %>%
mutate_at(`beginning index`: `ending index`), as.numeric)
```

• Filtering a data frame:

```
data_frame <- data_frame %>%
filter(`col name` > condition)
```

• Grouping a data frame:

```
data_frame <- data_frame %>%
group_by(`col name 1`, `col name 2`)
```

• Summing up columns:

```
data_frame <- data_frame %>%
mutate(`col name` = `col name 1` + `col name 2`)
```

• Padding character strings:

```
data_frame <- data_frame %>%
str_pad(`col name`, width = 6, side = 'left', pad = "0")
```

• Selecting variables from a data frame:

```
graduation <- graduation %>%

filter(Cohort == "2006" & Demographic == "Total Cohort") %>%

select(`col name 1`, `col name 2`, `col name 3`)
```

• Renaming a column in a data frame:

```
data_frame %>%
rename(new_column_name = old_column_name)
```

• Identifying duplicated values:

```
duplicated(data_frame)
```

• Identifying duplicatated values using purrr and dplyr:

```
list %>%
map(mutate, is_dup = duplicated(`col name 1`))
```

## **Concepts**

- Much of the data you will encounter in the real world requires data cleaning. Data cleaning includes:
  - Removing data you don't need for analysis.
  - Removing duplicate data.
  - Dealing with missing data and outliers.
  - Creating new variables where necessary.
  - Combining separate datasets.
- Metadata refers to any available descriptions of the datasets.
- Tick marks (``) are necessary when referring to variable names with spaces within them.

#### Resources

- Preparing data analysis
- <u>Duplicated function</u>
- Six steps to data cleaning

