Business Analytics Practicum (MGT 4803)

Zhaohu (Jonathan) Fan

Information Technology Management

Scheller College of Business

Georgia Institute of Technology

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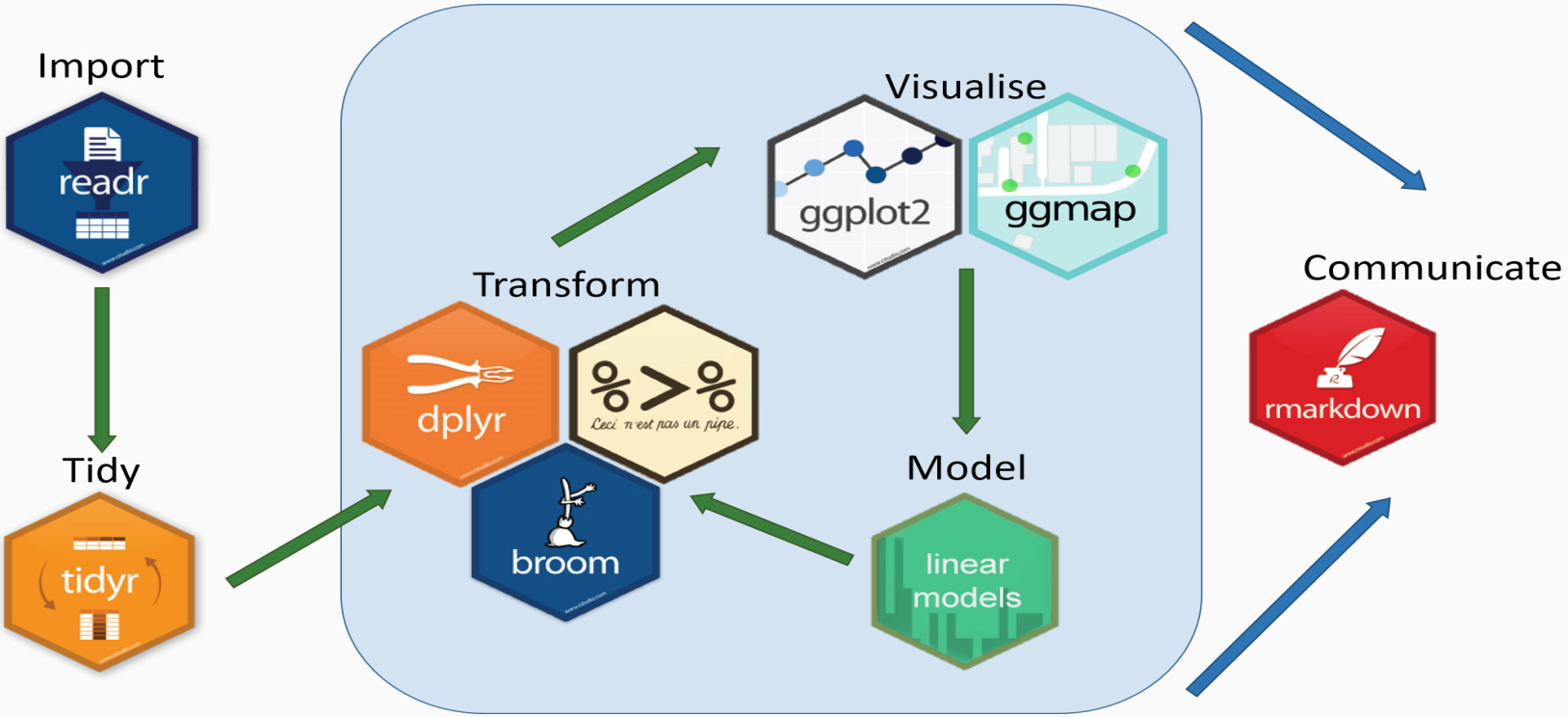
Logistical updates: Sparck Technology (Demo Day)

- Company site visit for undergrad business analytics practicum project
  - **When**: March 1st (Friday)
    - 10:00 AM - 1:00 PM (with a maximum duration of 3 hours)
    - Catering by Sparck during the visit
  - **Where**: Sparck at the location in Marietta, GA
  - **How to proceed?** Signing the GT waiver (which can be found in Module 6, Week 5)

First presentation (Data Exploration and Visualization)

- **When**: 5:00PM – 6:15PM, March 7th (Thursday)
  - **Where**: Scheller College of Business 203
  - **More details?** Please refer to the Team Mid-Point Presentation
    - **Canvas->Modules-> Assignments ->Team Mid-Point Presentation #1: (Data Exploration and Visualization)**

Workflow


Import
readr
Tidy
tidyr
Transform
dplyr
%>%
Leci n'est pas un pipe.
broom
Visualise
ggplot2
ggmap
Model
linear models
Communicate
rmarkdown

Why is the 'WEEK' column not sorted in ascending order, and how can we address this issue, especially if the 'WEEK' column is sorted as strings rather than numbers?

Our proposal

- Convert 'YEAR' and 'WEEK' to Strings
  - Extract Numerical Values from 'YEAR' and 'WEEK'
  - Sort the DataFrame
  - Drop Temporary Columns
  - Display the Sorted DataFrame

Convert 'YEAR' and 'WEEK' to Strings

- The code converts the columns `YEAR` and `WEEK` in the DataFrame `df_joined3` to string data types.
    - This is done using the .astype(str) method. This step is necessary if these columns are not already in string format, especially if subsequent operations rely on them being strings.

Python code

```
df_joined3['YEAR'] = df_joined3['YEAR'].astype(str)
```

Extract Numerical Values from 'YEAR'

- The DataFrame df_joined3 is then sorted based on three columns: `'STR_NBR'`, `'YEAR_NUMBER'`, and `'WEEK_NUMBER'`. The `sort_values(by=[...])` method is used for this purpose.
  - This means the DataFrame will first be sorted by `'STR_NBR'`, within that by `'YEAR_NUMBER'`, and finally within each year by `'WEEK_NUMBER'`.

Python code

```
df_joined3['YEAR_NUMBER'] = df_joined3['YEAR'].str.extract('(\d+)').astype(int)
```

Sort the DataFrame:

`

- The DataFrame df_joined3 is then sorted based on three columns: `'STR_NBR'`, `'YEAR_NUMBER'`, and `'WEEK_NUMBER'`.
- `The sort_values(by=[...])` method is used for this purpose.

Python code

```
df_sorted = df_joined3.sort_values(by=['STR_NBR', 'YEAR_NUMBER', 'WEEK_NUMBER'])
```

Python (Google Colab) Demonstration

- Please click on the link provided below
  - Data Analysis for Iris
  - Home Depot Project