Business Analytics Practicum (MGT 4803)

Zhaohu (Jonathan) Fan

Information Technology Management

Scheller College of Business

Georgia Institute of Technology

January 11, 2024

Team formation goals

- Creating teams mixing business, engineering, and science majors

  - We aim for diverse skill sets in each group.

  - Groups will consist of 3-5 people.

   - Please click on the link provided here (Google form)

What's happening next Tuesday?

- Projects leverage data engineering, data exploration and analysis, statistical modeling (**Python/R**), data visualization and dashboard (**Tableau**), and automation techniques.

- Projects presentation by Sponsors (Next Tuesday, Jan.16th)

  - **The Home Depot** (5:00 pm-5:35pm)

  - **Sparck Technologies** (5:40 pm-6:15pm)

- Post-presentations: Teams are required to submit their rank-ordered list of project preferences.

  - The instructor will assign each student team to a project.

How it works?

- **Small team collaboration (3-5)**

- **Support and Guidance**:

  - Provided by the instructor, a TA (1st-year MBA), and a group of 2nd-year MBA coaches.

    - Each team will have a designated MBA coach.

    - **Tuesdays** are allocated for meetings with student teams to review weekly project progress.

    - **Thursdays** are dedicated to hands-on tutorials, and practical demonstrations.

Data science pipeline
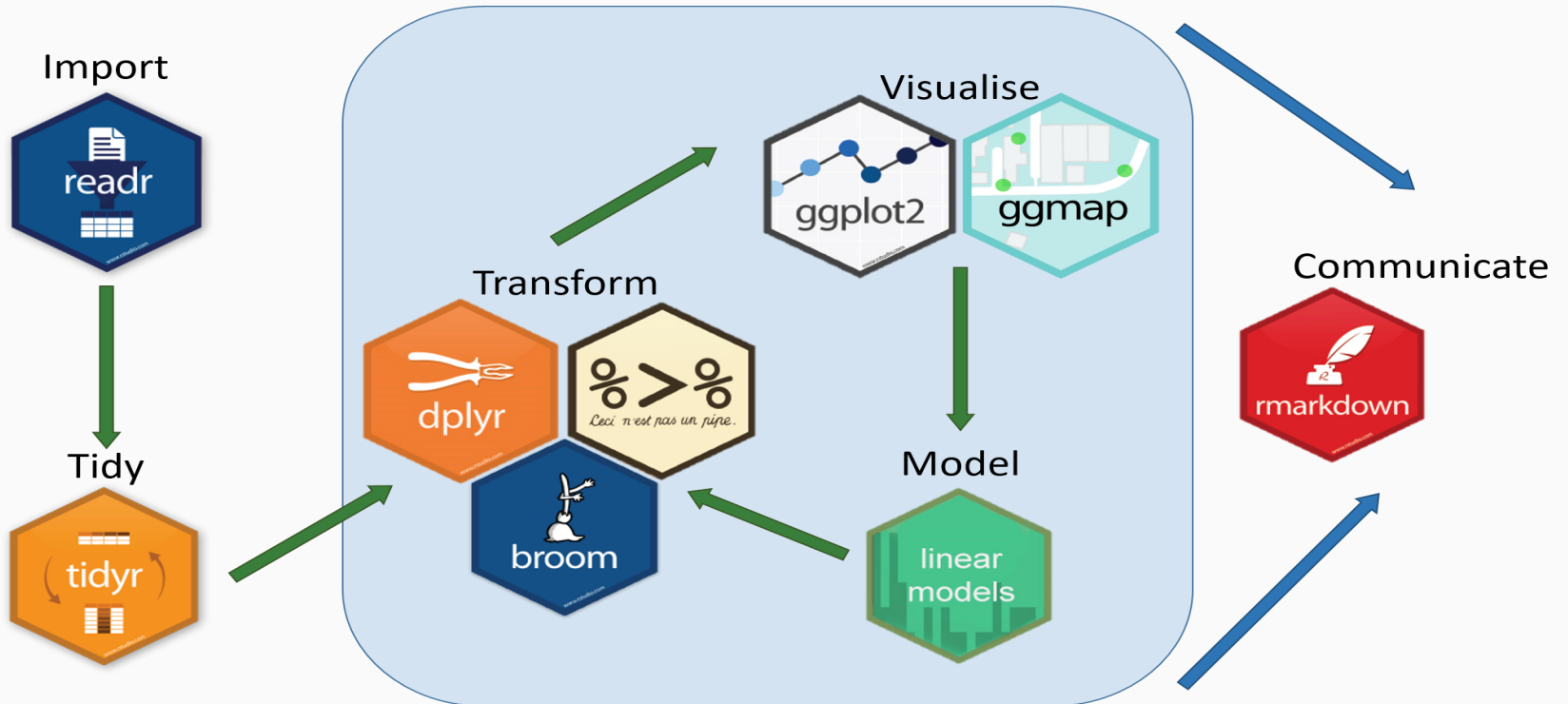
Step 1: Reading data sets using Python and R

Reading data sets using Python

- **Pandas is a library for** data manipulation **and data analysis.**

- Numpy is an **array manipulation** library, used for linear algebra, Fourier transform, and random number capabilities.

- Matplotlib is a library which generates **figures** and provides graphical user interface toolkit.

Car sales example

Car sales example

- Please click on the link provided below.
  - Hands-on tutorials (Car sales example)

Reading data sets using R

- Read the CSV File: Use the `read.csv()` function to load the CSV file into a data frame.

- View the Data: Use functions like `head()` to view the first few rows of the data frame.

R code

```
# Load the necessary library
library(readr)
# Read the CSV file
car_sales_data ← read.csv("car-sales.csv")
# Display the first few rows of the data frame
head(car_sales_data)
```