

SWE 307 – 2025 BIG DATA PROJECT - 1

DATA VISUALIZATION

Due date: 9.Oct.2025 Thursday, in class.

In this project, you are asked to implement a **Java Spring-Boot** web application that calls one of the **R** plot function over **GraalVM**. Your application will read a line from CSV file and send the selected column data to **R-function** to plot a dynamic graph on the browser. This work also an example for *agentic* approach which is very popular nowadays. Main application is your Java program and agent is the R server.

What is required from you is as follows:

- 1) Use only one column from given CSV file (swe307_pro1.csv), such as first group will use only *Col-1* data. There are 100 rows (100 data) in the file, and this file will be opened, read by *Java* not *R*.
- 2) Your Java program will read one consecutive row every second from the file, and the double number read will be sent to the **R** function for plot as shown in the class.
- 3) Preferably use **xyplot()** from lattice library. In your plot, x axis will be integer from [0-99] and y axis will plot the double value sent from your Java program.
- 4) Your plot should be *line* type and the line color should be *dark brown*. Use *grid* in your graph (see Figure 1).

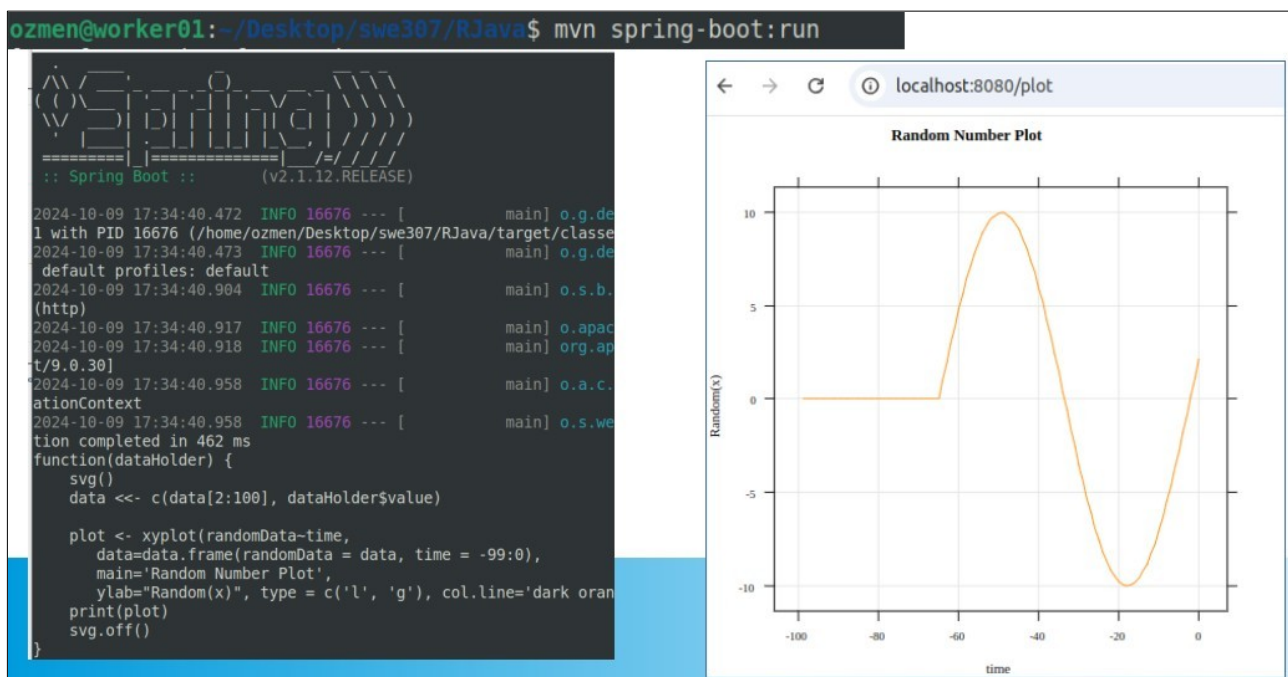


Figure 1. Data visualization on the web using Java and R.

PS: Example image files and csv files will be provided on Github repository, you can clone/download everything provided.

Link: <https://github.com/ozmen54/SWE307-2025.git>