Datamining tool R Workshop plan

Name	Studentnumber	Personal learning goal
Sara Eftekhar Azam	660310	I want to show the participants how to use pipe operator to filter data and group filtered data and plot the results. I want to do an interactive workshop where participants are doing tasks themselves instead of just watching someone else doing it and learn by doing
Christian Wanschers	632748	Better understanding the differences between R and Python since they are similar according to Mr. Stikker. I also want to know the uses of R and see if the language could be useful in my career. My learning goal concerning interactive presenting is to better understand how I can explain new subjects to peers better, specifically in new programming languages I am not experienced with either. By doing this, I can learn more about the R-language too. Furthermore, I want to learn how to improve the engagement of participants viewing the presentation or workshop by using and implementing different styles and see what works better and what does not.
Nino van Alphen	675273	My expected goal is to have a better understanding of the benefits for using R compared to other Languages during Datamining and for using R in general in order to be prepared for Questions and answers from the participants.
Bastiaan Verheul	667382	My goal is to be able to host an interactive workshop which will be memorized by the participants, particularly I want to focus on incorporating interactive elements seamlessly.

Goal	Leader	Time	Workshop Activities	Expectations of participants
Making sure participants can use and program R on their laptop.	Christian	5 min	Installation of R via VSCode, Basic introduction of R	Participants are going to install R on VScode, if they want to use any other IDE, they are allowed to but won't get any support from us when they are having any problems with that IDE.
Knowing what level and experience participants have in R.	Christian	15 min	Set up a mentimeter room. This makes us (the organisers of the workshop) able to gain insights about the experience level with R of participants. After this we can talk about what words fit R and what words don't.	Using mentimeter to implement workshop style mindmapping (C7-Mindmap), participants put in words and terms when they think of R.
Showing how to use filtering, grouping, and plotting data	Sara	15 min	Exploratory Data Analysis (EDA) tasks using a sample dataset. We will show filtering, grouping and plotting data.	Participants are expected to do exercises on filtering, grouping, and plotting data of the provided dataset and learn by doing. At the end, the participants will gain familiarity with the ggplot2 library.
Hands-on Exercise using the same dataset we used earlier to do basic regression and classification using R.	Bastiaan	15 min	Building a simple predictive model using R	The participants will create two different models with the dataset to create a regression and a classification model in R, they also need to visualize these models making use of graphs. Participants are expected to know what regression and classification is, they will learn to use these techniques in R with the necessary libraries.
Q&A	Nino	10 min	Open discussion through a question bowl session to address any remaining	Through implementing workshop style B3 – Question bowl, participants will pick out questions from a bowl of

			questions or concerns and test their knowledge	questions and try to answer them with the knowledge they acquired in the workshop. They will test their knowledge of the R programming language.

1. What do you want workshop members to have learned/experienced?

How to use the previously taught data mining tools/methods in Python but now with the use of R.

2. How is this goal connected to learning/working in IT?

Outside of learning to make use of R in data mining this workshop will also encapsulate adapting things the participants already learned and applying techniques

3. Who is your target audience (age, level, interest, need, concentration)?

Students between ages 20 and 30, third class HBO students which are all extremely interested in everything IT-related and are mostly eager to learn new IT-related stuff.

4. What sources will you use to learn more about your topic?

Peer-reviewed scientific articles about the introduction of R, documentation regarding R, chatGPT, knowledgable teachers like Peter Stikker.

5. What will you tell in the introduction?

A brief introduction of R programming language and how it compares to Python and why it is a valuable tool.

6. What will you do as a Warming Up (small interactive exercise).

Buzz session with installation of R in own chosen IDE.

7. How do you connect the Warming Up to the core part of the workshop?

With installation of R it becomes possible to actually write R, installation will include a short MWE to hopefully motivate students to improve their R-skills.

8. What will you do?

We will provide files (as is done in some of our other classes) that have some parts already completed and other parts need to be completed. The instructor will explain various parts and concepts and the participants will try out the code and complete some parts to learn by doing).

9. In what ways will participants work together?

Participants can work in small groups to discuss the content and how to do the parts that should be completed. We expect that each participant will move along with the instructor on their own.

10. How are the experiences and learning moments reflected upon?

We will try to make our workshop interactive and practical so that participants learn by doing (and not by just observing the instructors). After each part is explained, we will explain the learning goal and summarize and reflect on what was explained.

11. How to close?

The workshop will be closed off by going over everything covered in the workshop and how these concepts can be used in the future. Examples of where to apply using R as a data mining tool.