Working Directory

Setting the Working Directory

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This is a note on how to read data that is saved in a folder on the hard disk. We distinguish two cases how to set the working directory.

1 Working with RStudio project environments

Referring to the first exercise session, you have set up the following working environment:

1. Open a folder with the name `r_course`
2. In the File pane in RStudio (the part at the bottom right) you can navigate to this new folder `r_course`.
3. Click on the 'More'-button and choose "Set As Working Directory" in the drop-down menu.
4. Create two new folders – `data` and `code`
5. Click on the 'Project'-button in the toolbar in the the top-right corner of the RStudio window (or on 'File' in the menu in the top left corner) and select 'New Project' in the drop-down menu. In the pop-up window, select 'Existing directory', browse to and select your `r_course` folder. Finally, click 'Create Project'.

In order to work with the project environment that you have set up, you have several ways to open it. (1) Double click on the Rproj file in the folder on your hard disk. (2) Click on 'File' in the top left corner in RStudio, choose 'Open Project' and browse for and select an existing project. (3) Click on 'File', choose 'Recent Projects' and select the project from there. Options (2) and (3) are also available from the 'Project' button in the toolbar in the top right corner.

If you work in the just defined environment and your data is available in the subfolder `data` as described above, then you can read a dataset (named 'taxes.csv' in this example) as follows:

```
taxes <- read_csv("data/taxes.csv")
```

Imagine your data is in the subfolder `exercise5` of the folder `data`. You can read your data with the following code:

```
taxes <- read_csv("data/exercise5/taxes.csv")
```

Another example is when the data is not stored in a subfolder relative to where your working directory is set but in another branch of the folder structure. In this case, you can go one level up in the folder structure with `../` (or two levels with `../../`, etc.) and then choose the relevant subfolder `data`:

```
taxes <- read_csv("../data/taxes.csv")
```

Setting the working directory by defining a project gives you a flexible structure that especially pays off in multiple work contexts. For example, if you move your folder `r_course` to another drive, the working environment stays attached and no manual adjustment of the working directory is needed. Similarly, when you have a co-authored project working with a common folder structure, all parties can run the file without individually adjust the working directory.

2 Setting the working directory manually

Another way to define the working directory is to set it explicitly in the beginning of the file with the code:

```
setwd("C:/Documents/r_course")
```

The sample text within the quotation marks is the path that leads to the main folder. The path is visible in the relevant folder in the (Windows-) explorer. Alternatively, you can browse to the folder that you would like to take as working directory in the File pane in RStudio, click on the 'More'-Button and choose "Set As Working Directory". Afterwards, you can copy the working directory from the console to the top of the file.

Reading the data with `read_csv()` is consistent with the instructions given for the project environment.

Setting the working directory manually is especially convenient for projects with a simple structure or for temporary files. Note that if you move your folder to another drive, you would need to adjust the path within `setwd()`.