

Advanced Programming in R  
Project Proposal

**World Bank Data Analytical Dashboards**

Jarosław Leski

Daniel Ślwiński

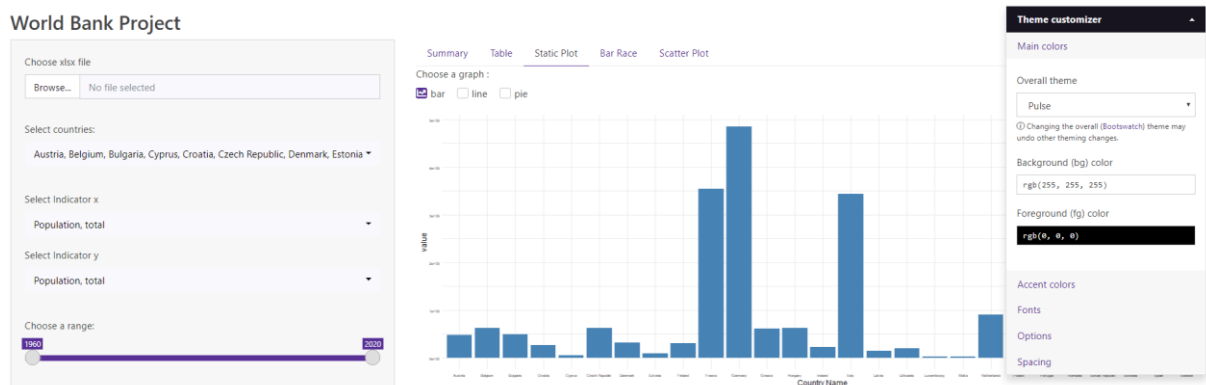
## The following tools will be included in project:

- Writing own functions in R
- Advanced data processing with dplyr, dtplyr, tidyr
- Shiny + creating analytical dashboards
- Creating own R packages

## Short Description of the project:

We want to create an interactive dashboard in Shiny, where the user will be able to generate numerous dynamic charts and animations, based on data loaded by the user (directly from the application panel) from the World Bank, or by connecting to the World Bank API. The user selects the indicators, years and countries of interest. With our R package created, our application will be able to customize the raw input data to create beautiful animated charts. Our library allows to load the data (csv or excel) into the application and formats it accordingly (regardless of the selected indicators and countries). Moreover, the user, after studying the data, will be able to test his knowledge in an interactive quiz we have prepared.

## Some screenshots of the current version of our application:



World Bank Project

Choose xlsx file

Browse... No file selected

Select countries:

Austria, Belgium, Bulgaria, Cyprus, Croatia, Czech Republic, Denmark, Estonia

Select Indicator x

Population, total

Select Indicator y

Population, total

Choose a range:

1960 2020

Summary Table Static Plot Bar Race Scatter Plot

Show 10 entries

Search:

	Country Name	year	value
31	Denmark	2020	5831404
32	Denmark	2019	5814422
33	Denmark	2018	5793636
34	Denmark	2017	5764980
35	Denmark	2016	5728010
36	Estonia	2020	1331057
37	Estonia	2019	1326898
38	Estonia	2018	1321977
39	Estonia	2017	1317384
40	Estonia	2016	1315790

Showing 31 to 40 of 65 entries

Previous 1 2 3 4 5 6 7 Next

## World Bank Project

Choose xlsx file

No file selected

Select countries:

Austria, Belgium, Bulgaria, Cyprus, Croatia, Czech Republic, Denmark, Estonia ▾

Select Indicator x

Inflation, consumer prices (annual %) ▾

Select Indicator y

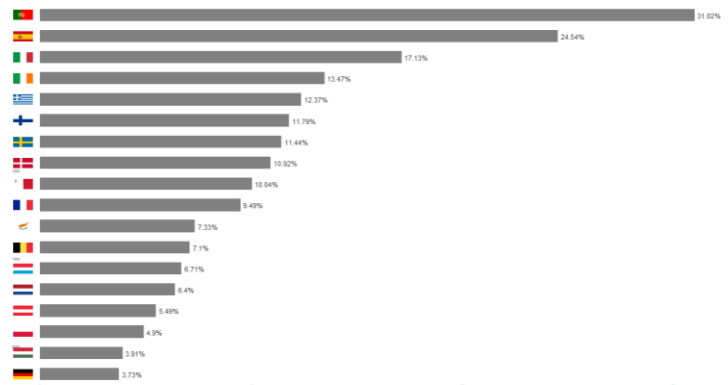
Population, total ▾

Choose a range:

1960 2020

Summary Table Static Plot Bar Race Scatter Plot

Run the animation



Theme customizer

## World Bank Project

Choose xlsx file

No file selected

Select countries:

Austria, Belgium, Bulgaria, Cyprus, Croatia, Czech Republic, Denmark, Estonia ▾

Select Indicator x

Population, total ▾

Select Indicator y

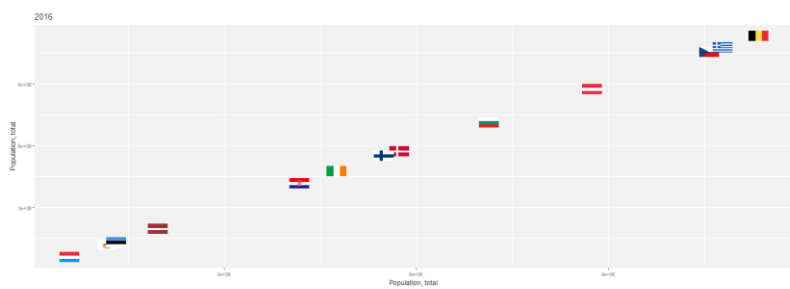
Population, total ▾

Choose a range:

1960 2016 2020

Summary Table Static Plot Bar Race Scatter Plot

Run the animation



Adjust the size of flags:

10

Theme customizer