OQC

Oxford Q-Step Centre

LAB SESSION 1

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Today

- General Information: essay + homework
- Introduction to the R interface
- Practice with R

Course Overview

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- Monday Lectures
- Lab Sessions: **week 2 – 4 – 6 – 8 [55 minutes each]**
- **Lab Sessions are essential** to teach you the practical skills you need to complete the data-analysis for the final essay
- **Essay:** 2000 words on a question on the Lijphart data-base
- **Deadline:** 12 noon Tuesday 3 May 2016

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Lab Sessions

- Week 2: getting to know R
- Weeks 4, 6, 8 : conducting analysis with Lijphart data-set
- Homework: due **noon** every Friday prior to labs
  - So weeks 3, 5, 7
- Solutions to homework will be discussed in the next lab session and uploaded to Weblearn in lab- weeks

eR? aR? R!

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- **R** (programming language) and **R Studio** (user interface)

- It allows you to conduct statistical tests; make tables; nice graphics and visualizations

- Great news; it is free! Download it to your own laptop on: http://www.rstudio.com/products/rstudio/download/

[seriously – you need to download it to work on it from home!]

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Log-in details

Login:	**Password:**
q-step-01	q-step-01
q-step-02	q-step-02
……	……
……	……
q-step-10	q-step-10
q-step-11	q-step-11

Getting Started!

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- We will be working in R- Studio
- R Studio has 3 main elements:
  - **The Script** → the document in which you write your code ; save this!
  - **The 'Global Environment'** → shows the objects you have created
  - **The 'Console'** → the screen that provides your output

R- Script

Environment

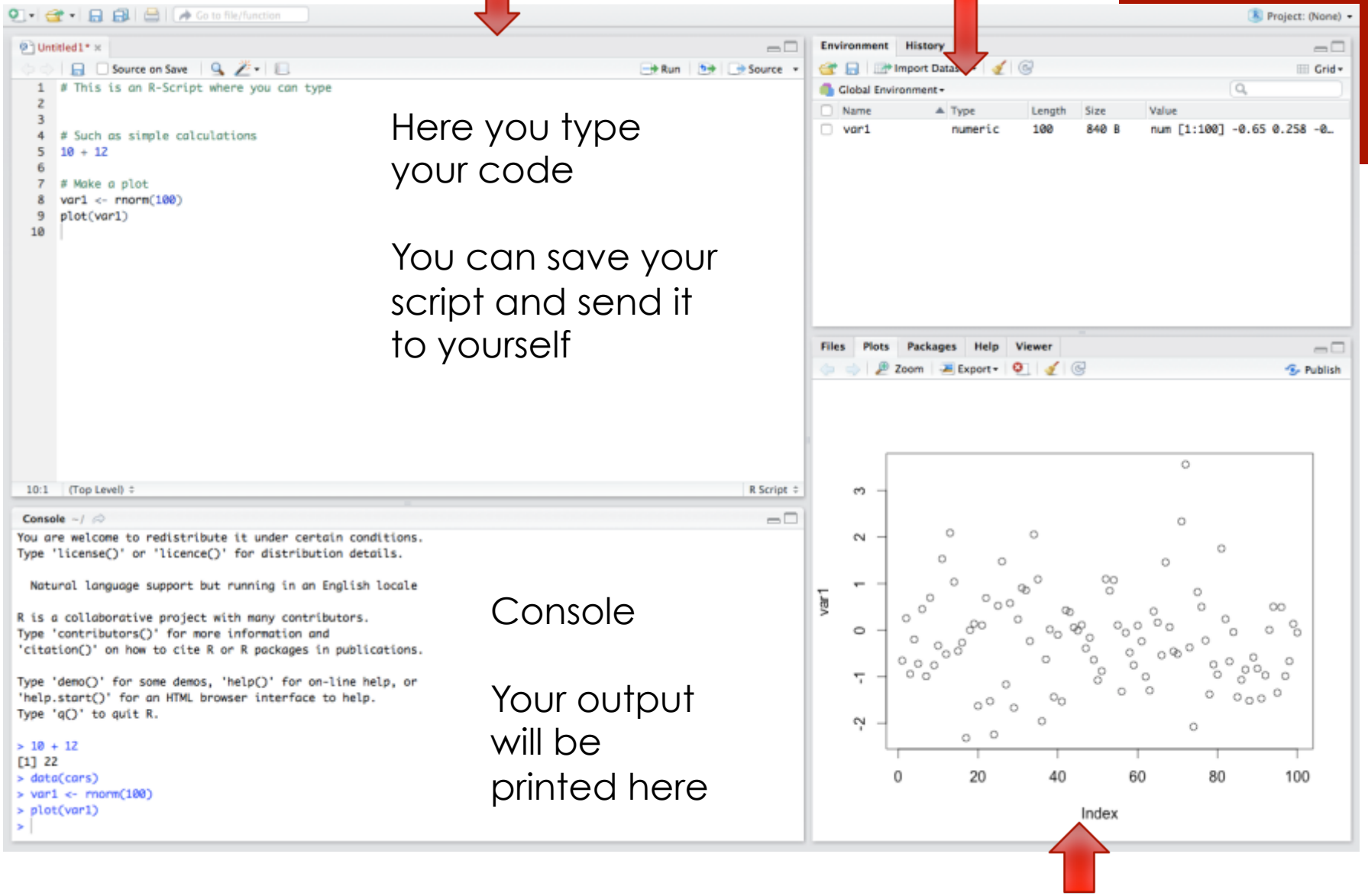
Here you type your code

You can save your script and send it to yourself

Console

Your output will be printed here

Plots will be shown here



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Now it's time to **get started** with your labsheet!

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Some Swirl Commands

- info() – provides an overview of relevant commands
- main() – let's you go back to the main menu
- skip() – to skip the current question
- bye() – to exit swirl

Main Commands this Session

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- the <- sign assigns values to a vector
- ls() lists all your objects in the environment
- c() lets you assign multiple values into 1 vector
- dim(), length (), class(), summary () give information about your vector
- data.frame() or matrix () create a matrix
- head(), tail(), str() give information about your data-set
- the $ is used to refer to variables within a data-frame

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SEE YOU IN WEEK 4