Introduction to R Shiny

Workshop-ggplot

Lokesh Mano • 20-Jul-2021

NBIS, SciLifeLab

Contents

- Introduction to RShiny
- Code Structure
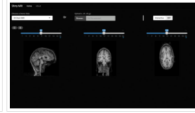- App execution
- UI
- Server
- Simple App

Life sciences

COVID-19 tracker

Exploring large hospital data for better use of antimicrobials

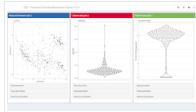ShinyMRI - View MRI images in Shiny

A/B Testing Sample Size Calculator

ctmmweb, a web app to analysis Animal tracking data

Visualizing Biodiversity in National Parks data

iSEE

MOTE: An Effect Size Calculator

Interactively view and subset phylogenetic trees

(https://shiny.rstudio.com/gallery/)

What is shiny?

- Interactive documents & web applications
- Completely created using R
- Needs a live environment

Usage

- Standalone web applications
- Dashboard/Flexboard
- Interactive RMarkdown
- Gadgets/RStudio extensions

App structure

- UI Layout
- UI Inputs (Widgets)
- UI Outputs
- Renderer
- Builder
- Function reference

Code structure

One file format

app.R

```
ui <- fluidPage()
server <- function(input,output) {}
shinyApp(ui=ui,server=server)
```

Two file format

ui.R

```
ui <- fluidPage()
```

server.R

```
server <- function(input,output) {}
```

Thank you. Questions?

R version 4.1.0 (2021-05-18)

Platform: x86_64-pc-linux-gnu (64-bit)

OS: Ubuntu 18.04.5 LTS