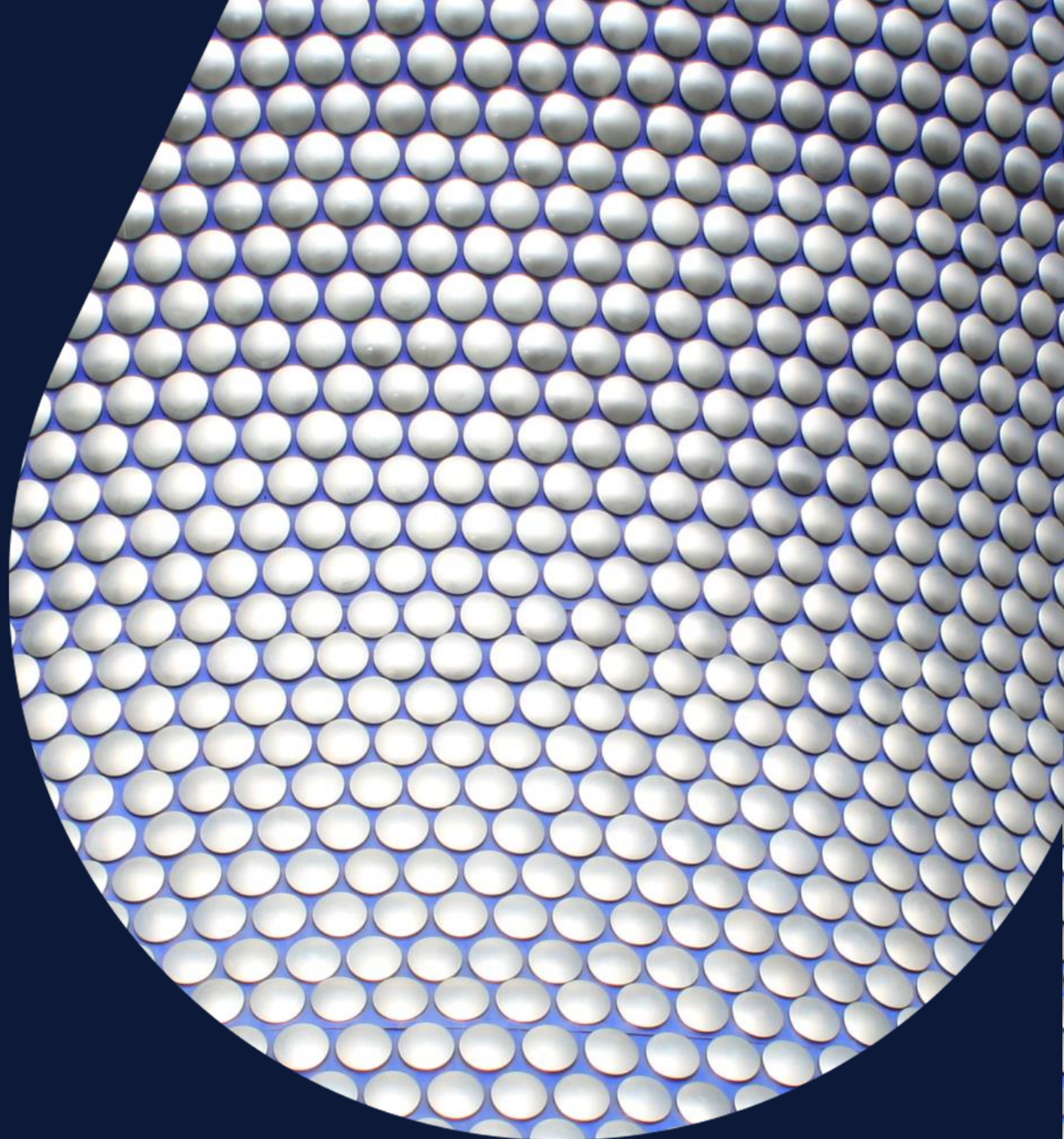


Intro to Shiny





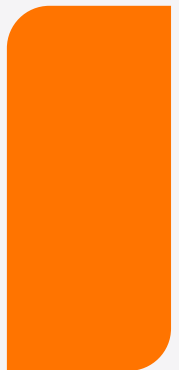
Agenda



Introduction



What is Shiny?



Build some apps



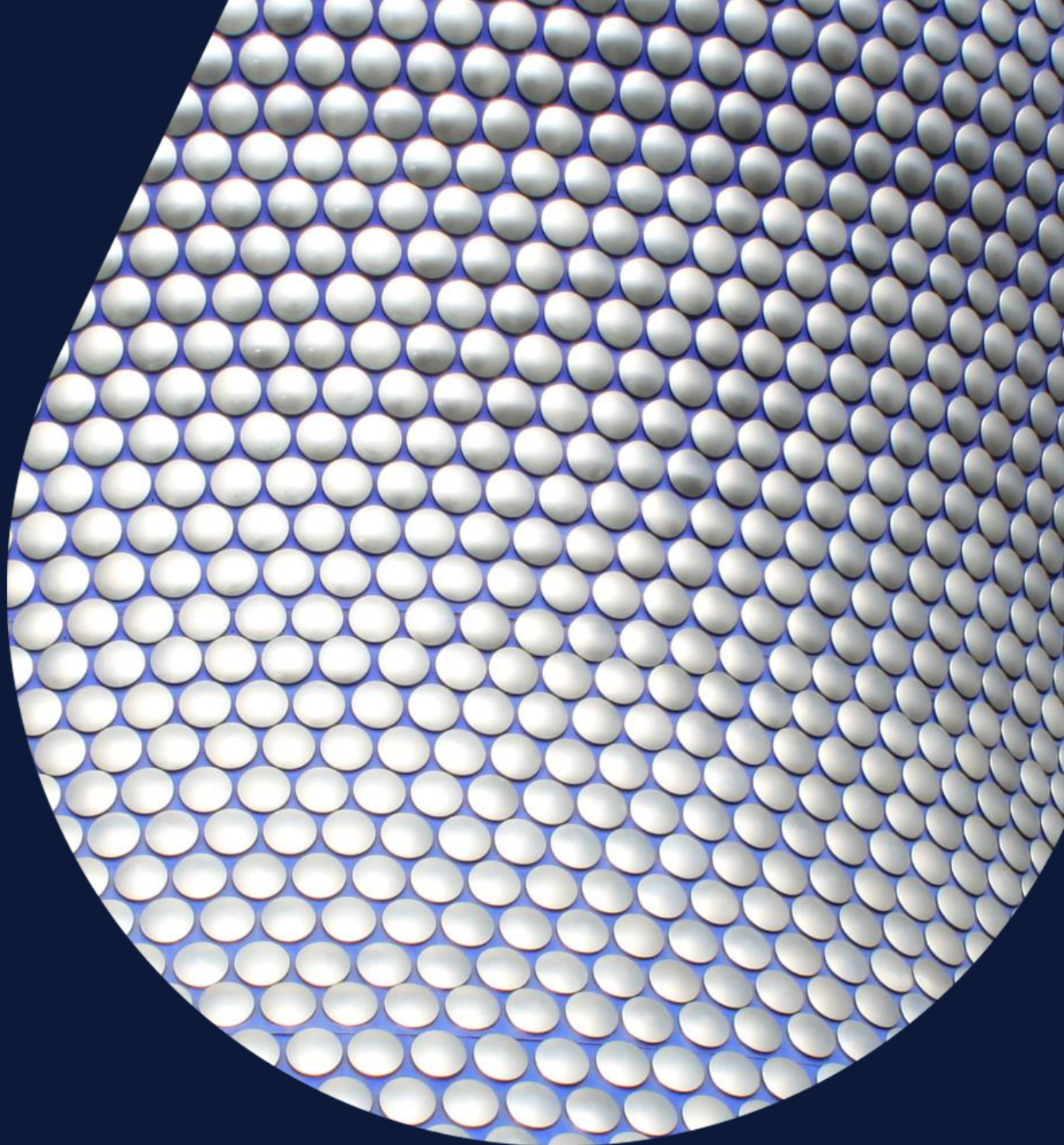
Where next?



Workshop Prerequisites

- R + RStudio
- github.com/MangoTheCat/intro-to-shiny-workshop

Introduction



About Mango

- Data Science Services
- Cross Sector
- ~80 people
- London & Chippenham
- R, Python, Spark
- @mangothecat





Mango's Expertise



Data Science

Training
Consulting
Mentoring



Data Engineering

Infrastructure
Dev Ops
Modernisation



Data Products

App Dev
Validation
Testing

R Community

- Mango Organise
 - LondonR
 - ManchesterR
 - BaselR
 - Data Engineering London
 - EARL
- Mango Sponsor
 - BirminghamR
 - BarcelonaR
 - OxfordR



About Me

- Data scientist at Mango
- Mix of training and consultancy
- Big user (and fan) of R
- Interested in:
 - Machine Learning
 - Software development
 - Shiny!

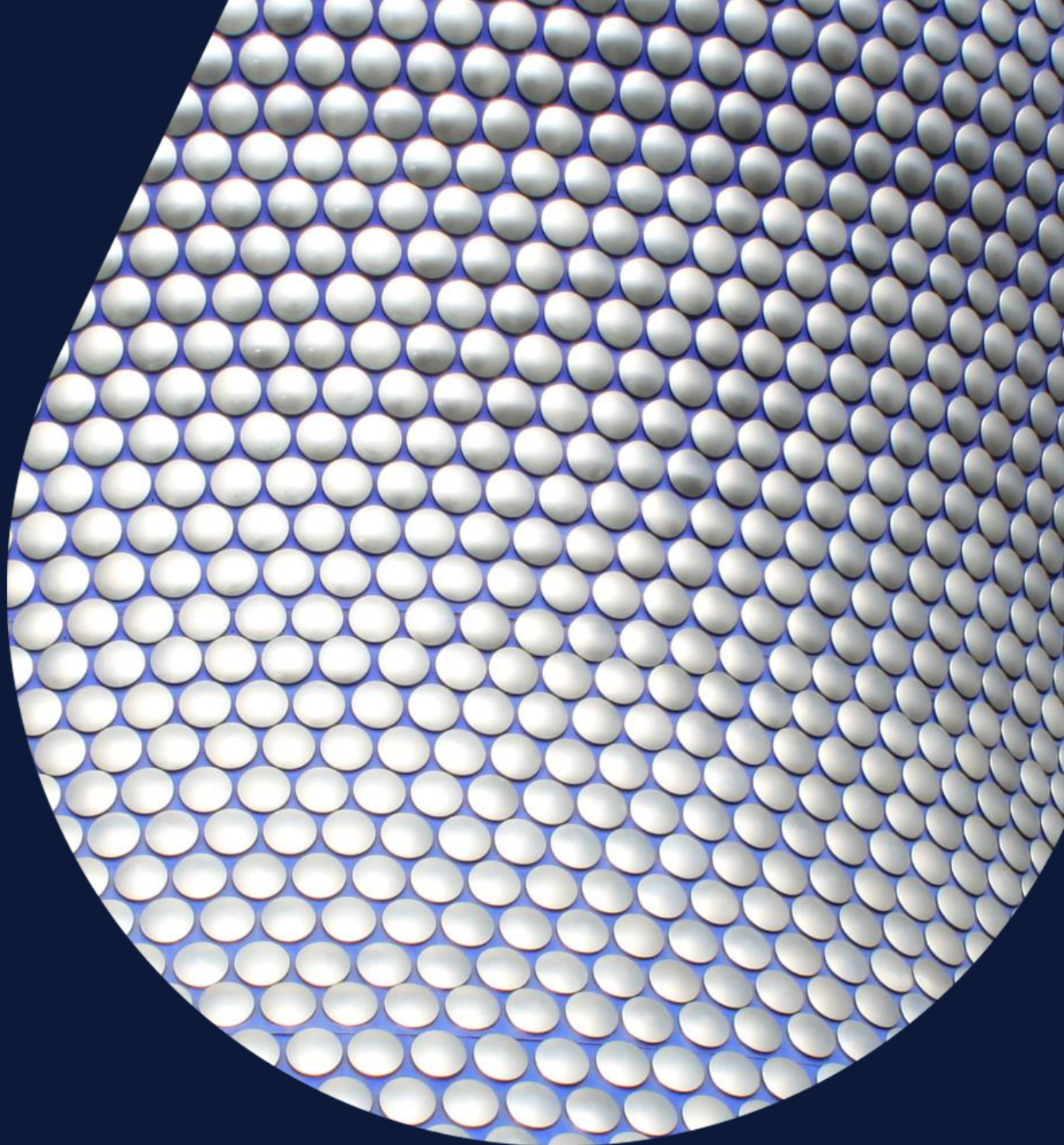


Workshop Aims

- Understand what Shiny is
- Understand why to use Shiny
- Be able to write a basic app
- Know where to find out more



What is Shiny?





What is Shiny?

- R package for building interactive web applications
- No HTML/CSS/JavaScript/... required
- Just R



What's Shiny For?

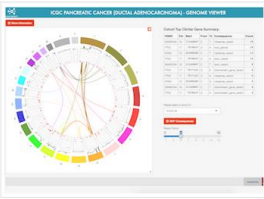
Allowing your app users
(friends, colleagues, the
public) to benefit from R's
amazing functionality
without them needing to
learn R

Shiny from R Studio

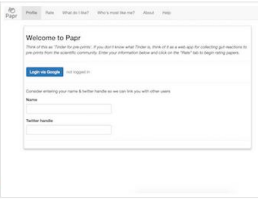
Get Started Gallery Articles Reference Deploy Help Contribute

Gallery

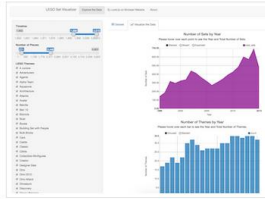
Shiny User Showcase
The Shiny User Showcase contains an inspiring set of sophisticated apps developed and contributed by Shiny users.




Genome browser



Papr



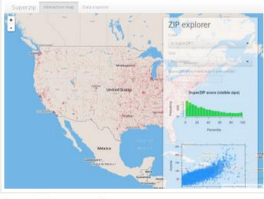
Lego Set Database Explorer



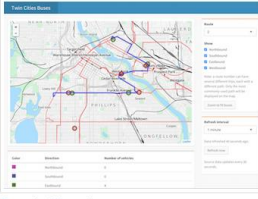
See more

Interactive visualizations

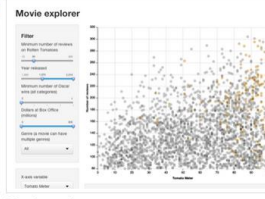
Shiny is designed for fully interactive visualization, using JavaScript libraries like d3, Leaflet, and Google Charts.



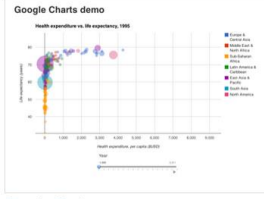
SuperZip example



Bus dashboard

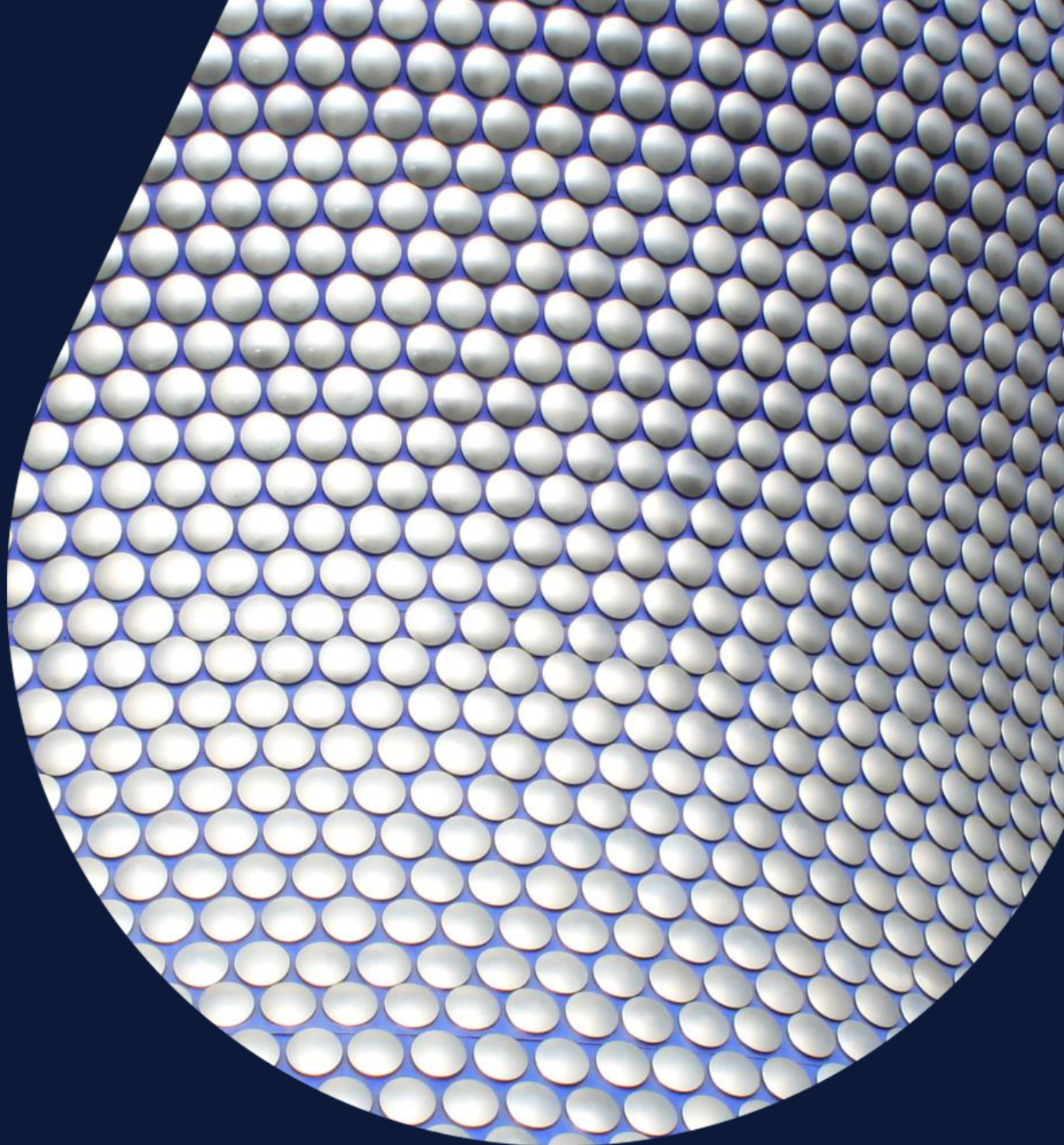


Movie explorer



Google Charts

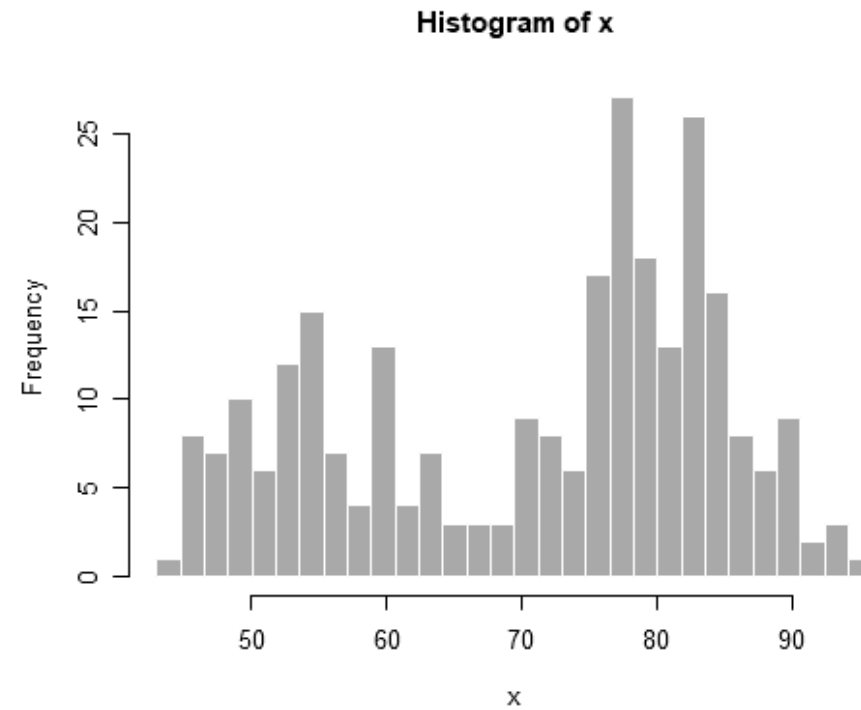
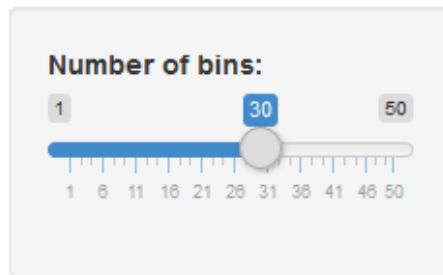
Building Apps



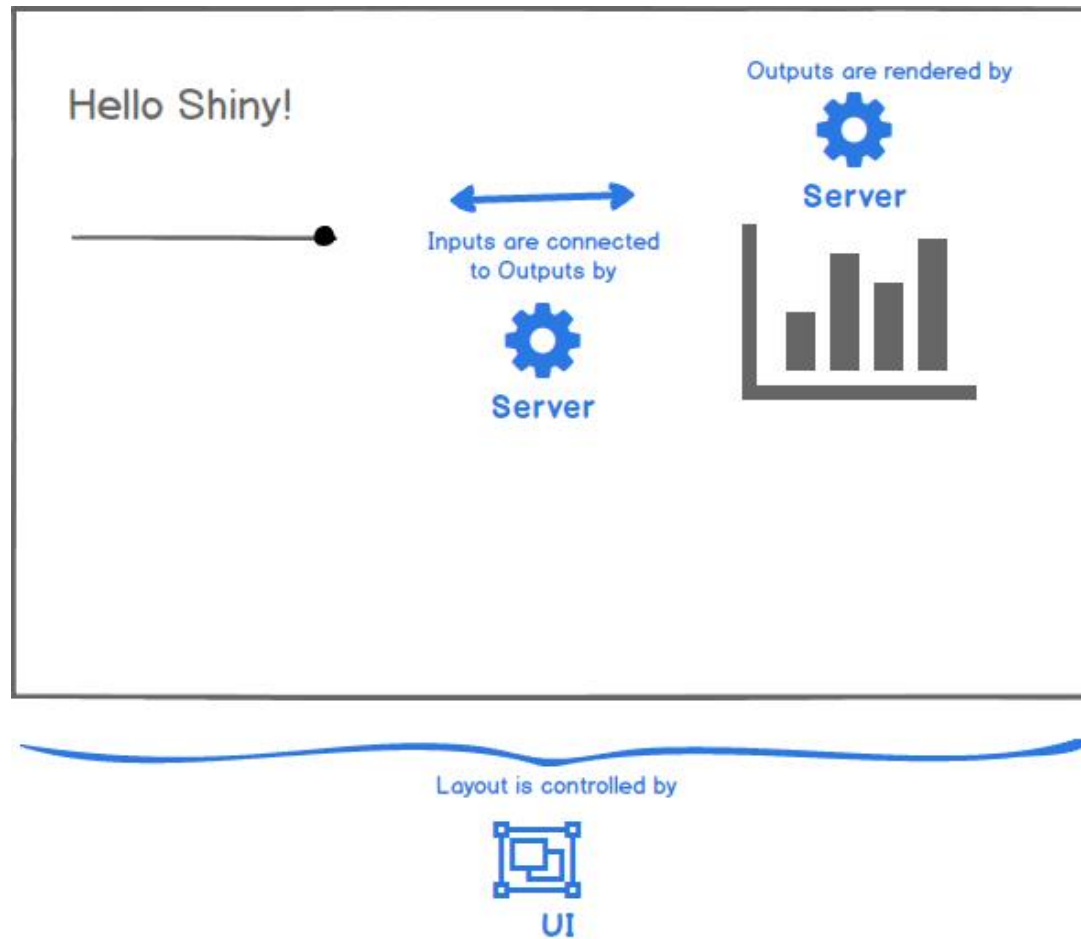
Demo App



Old Faithful Geyser Data



App Architecture



Shiny Widgets



Shiny - Widget Gallery

shinyrstudio.com/gallery/widget-gallery.html

Shiny from R Studio

Back to Gallery Get Code

Shiny Widgets Gallery

For each widget below, the Current Value(s) window displays the value that the widget provides to shinyServer. Notice that the values change as you interact with the widgets.

Action button

Action

Current Value:

```
[1] 0  
attr(,"class")  
[1] "integer"      "shinyActionButtonValue"
```

See Code

Single checkbox

☒ Choice A

Current Value:

```
[1] TRUE
```

See Code

Checkbox group

☒ Choice 1
☐ Choice 2
☐ Choice 3

Current Values:

```
[1] "1"
```

See Code

Date input

2014-01-01

Current Value:

```
[1] "2014-01-01"
```

See Code

Date range

2018-04-27 to 2018-04-27

Current Values:

```
[1] "2018-04-27" "2018-04-27"
```

See Code

File input

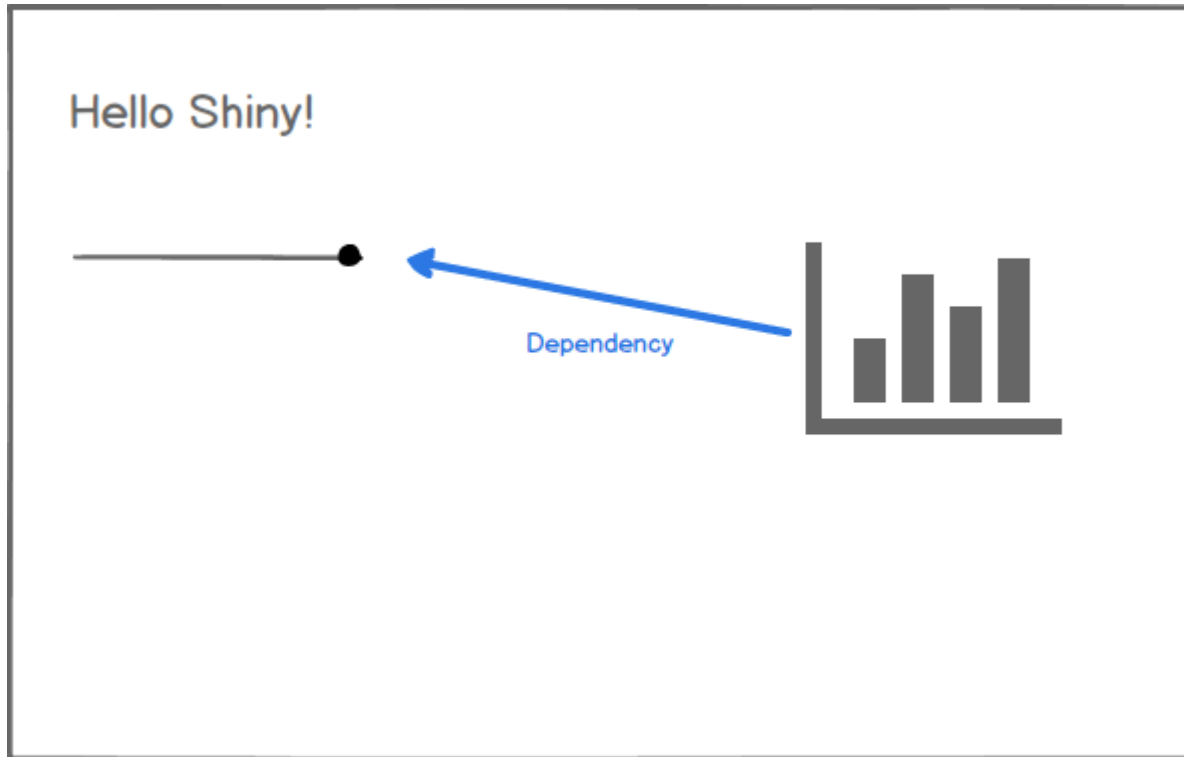
Browse... No file selected

Current Value:

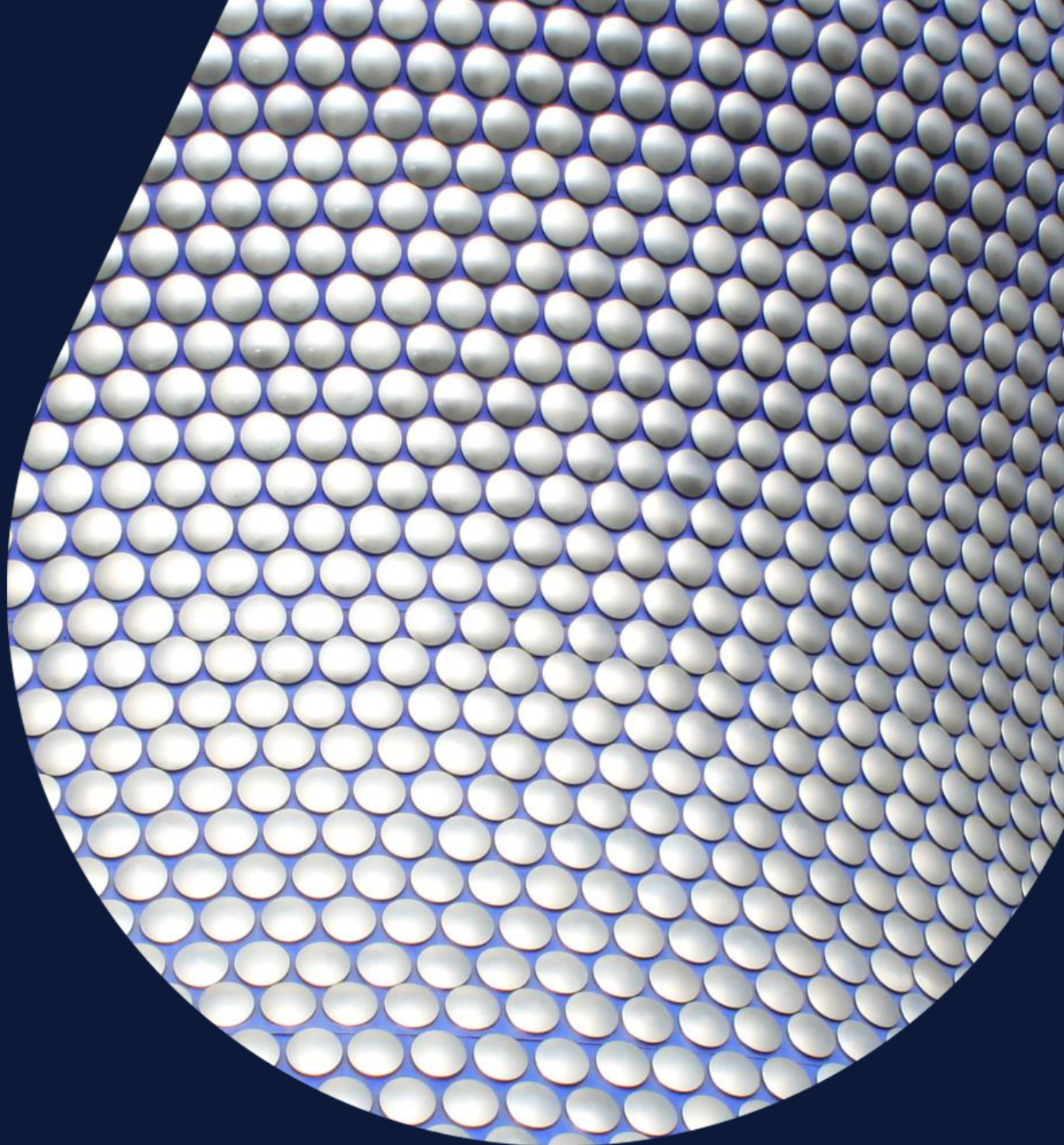
```
NULL
```

See Code

Reactivity



Where Next?





Where Next?

- Mango's Shiny track
 - bit.ly/mangocourses
- shiny.rstudio.com
- community.rstudio.com
- htmlwidgets.org
- shinyapps.io

