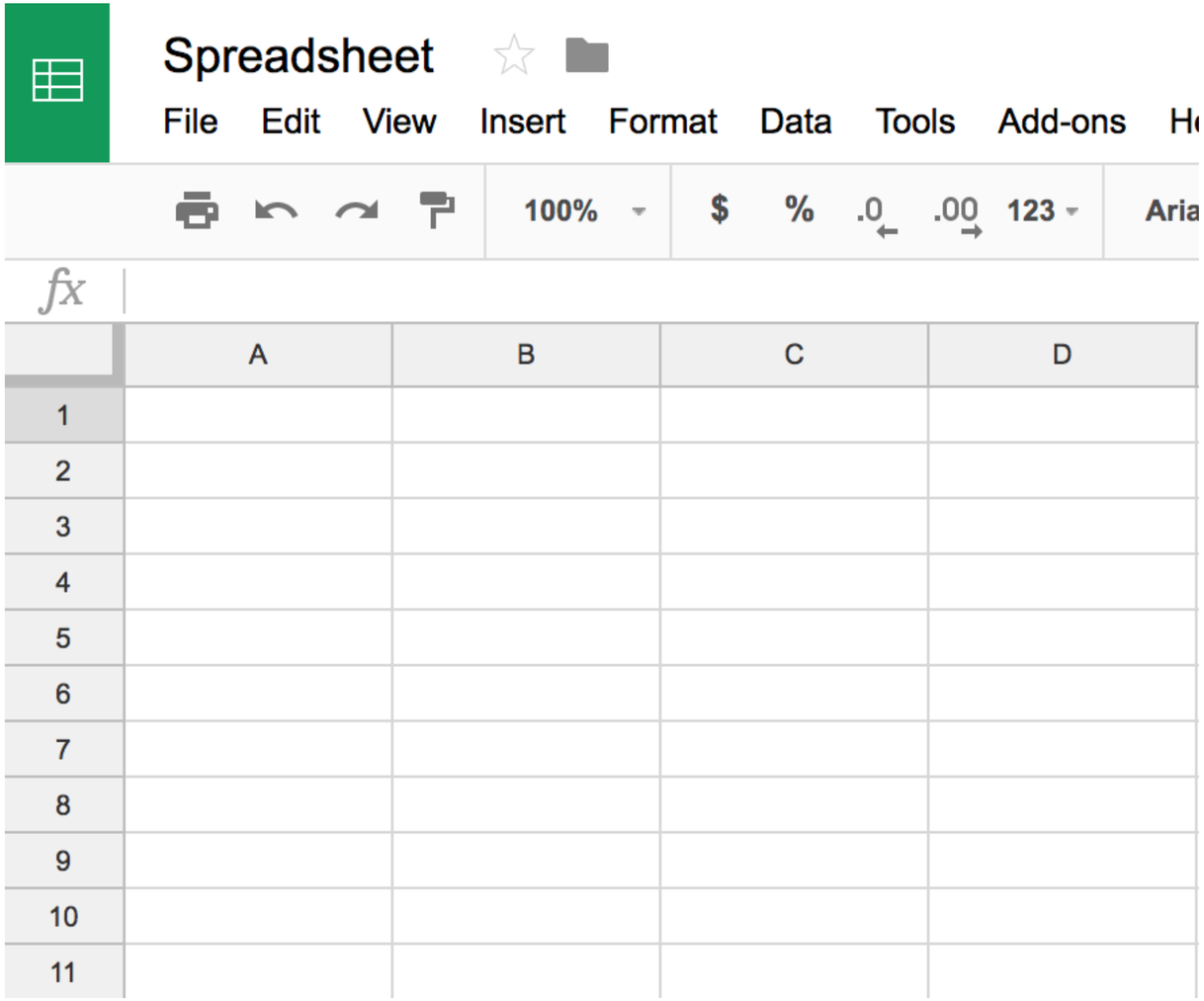
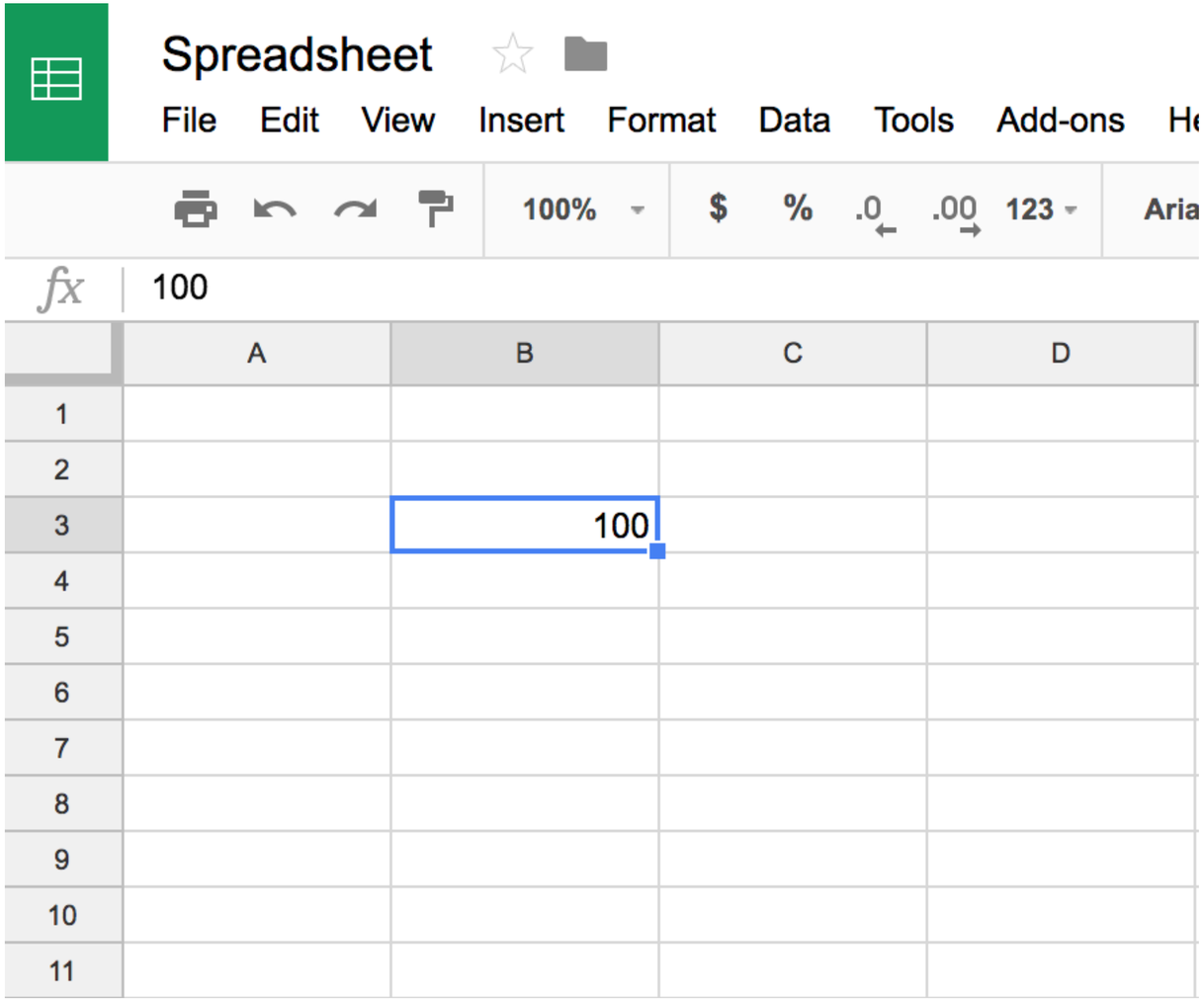
BUILDING WEB APPLICATIONS IN R WITH SHINY

Reactive flow

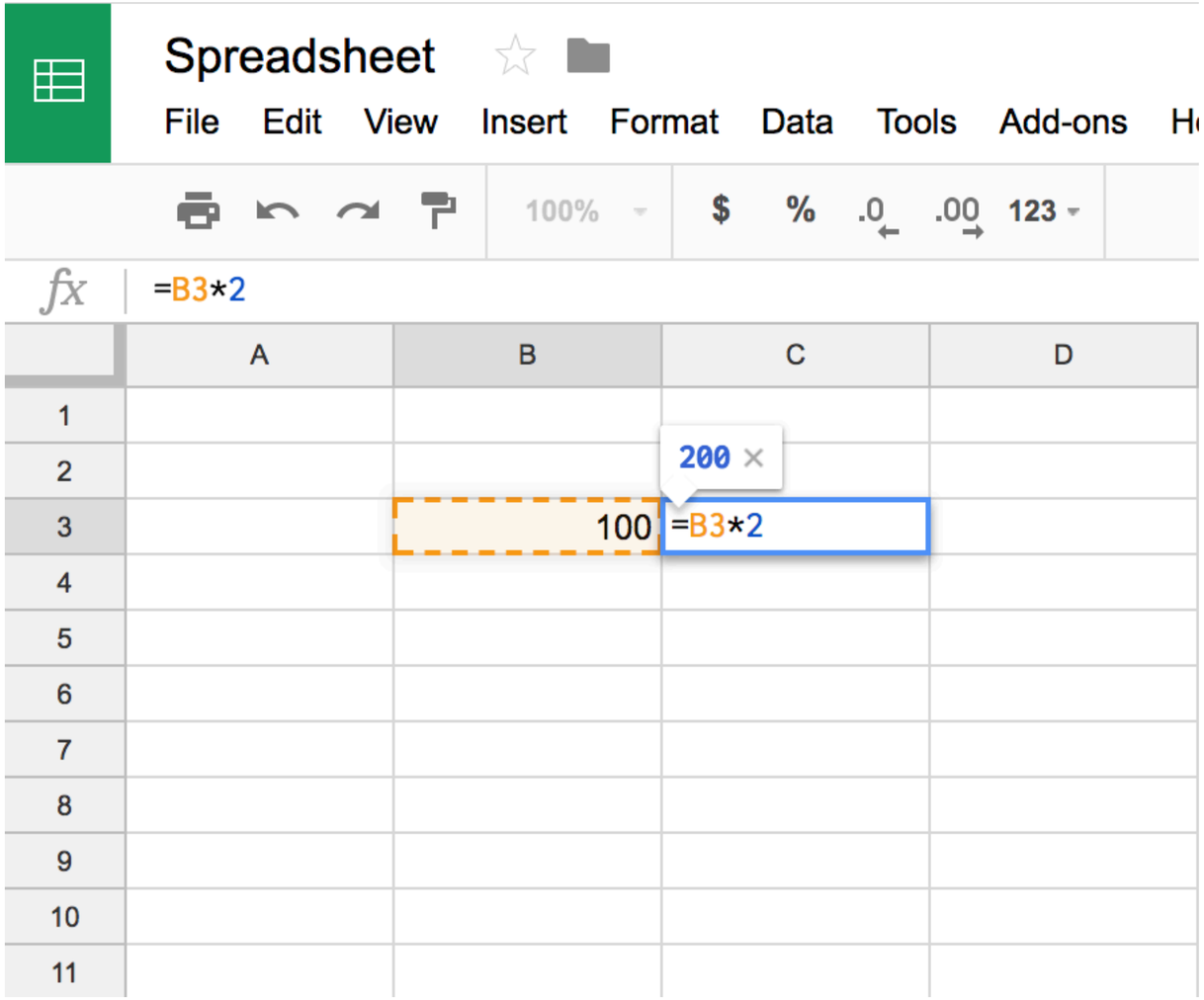
Reactivity, in spreadsheets



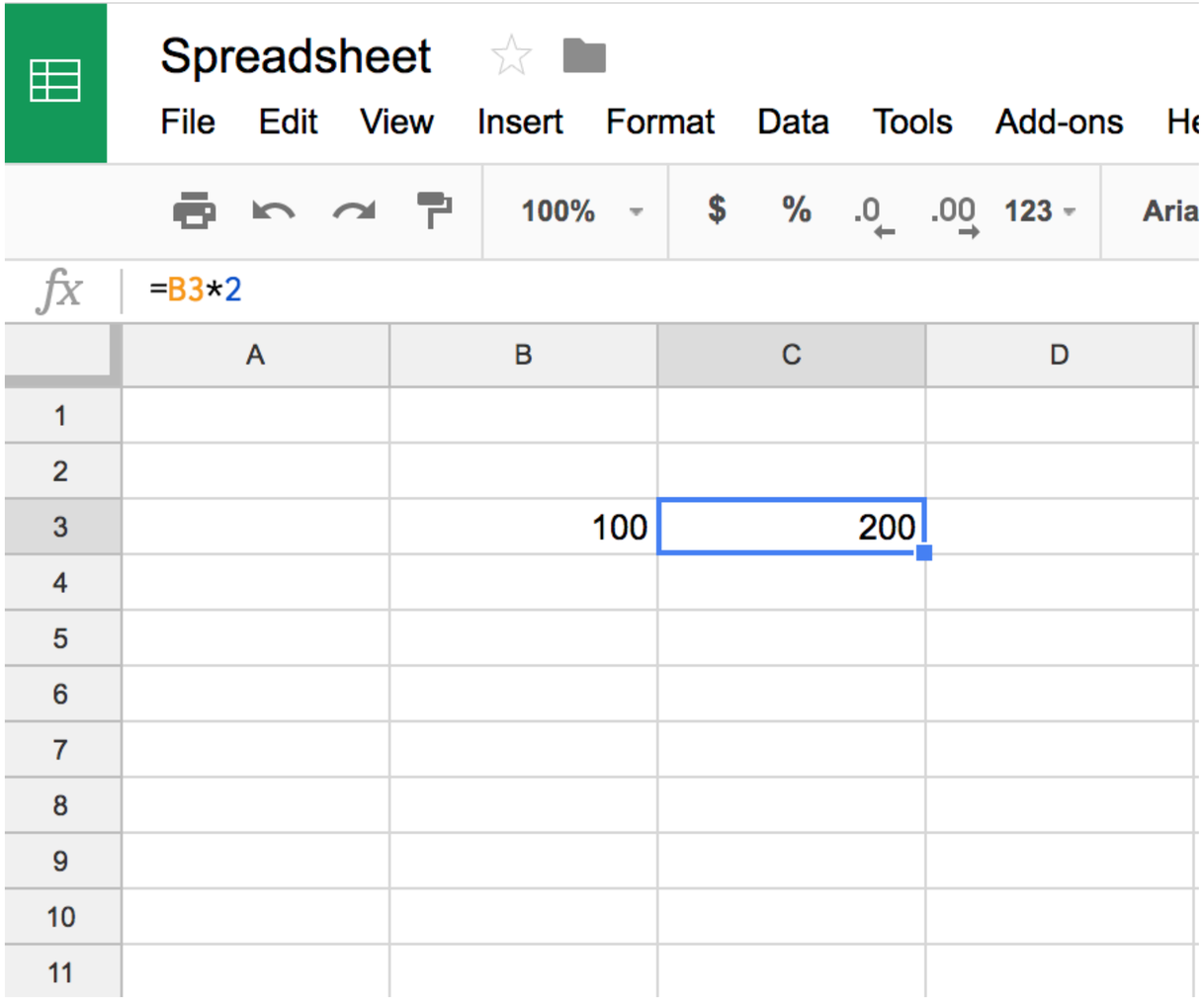
Reactivity, in spreadsheets



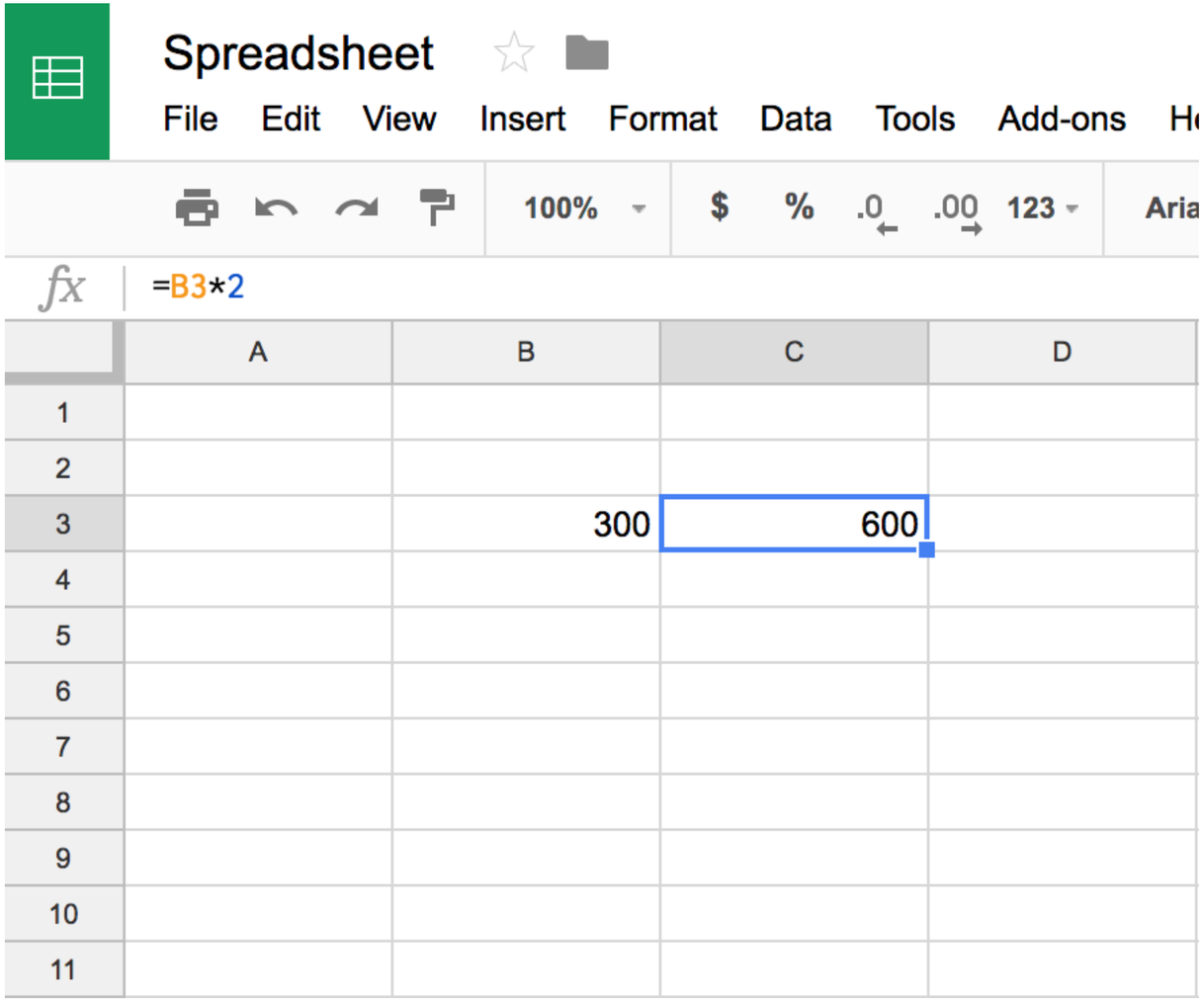
Reactivity, in spreadsheets



Reactivity, in spreadsheets



Reactivity, in spreadsheets

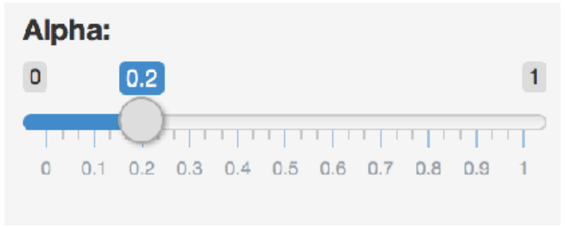


Reactions

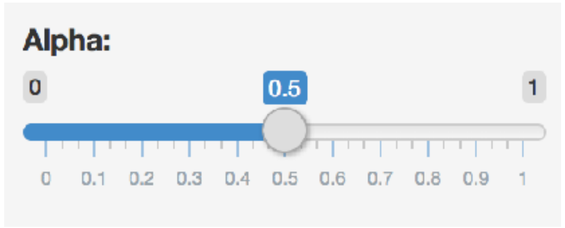
The **input$** list stores the current value of each input object under its name.

```
# Set alpha level
sliderInput(inputId = "alpha",
            label = "Alpha:",
            min = 0, max = 1,
            value = 0.5)
```

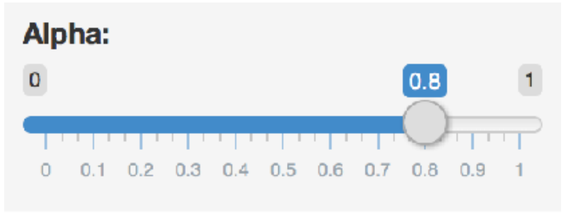
input$alpha



input$alpha = 0.2



input$alpha = 0.5



input$alpha = 0.8

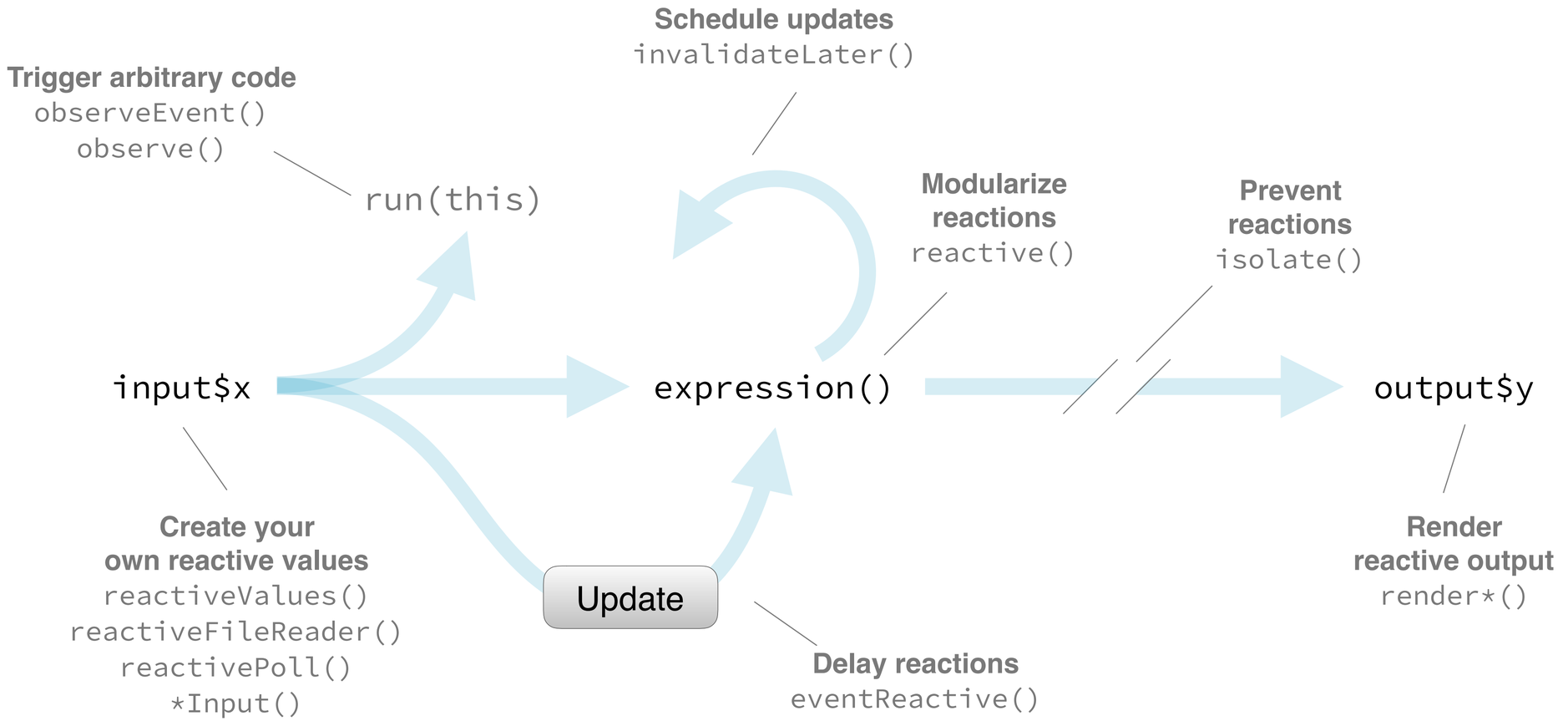
Reactivity 101

Reactivity automatically occurs when an input value is used to render an output object.

```
# Define server function required to create the scatterplot
server <- function(input, output) {

  # Create the scatterplot object the plotOutput function is expecting
  output$scatterplot <- renderPlot({
    ggplot(data = movies, aes_string(x = input$x, y = input$y)) +
      geom_point(alpha = input$alpha)
  })
}
```

Reactive flow



Reactive flow, simplified

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Let's practice!