

ShinyApp Beispielskript

```
library(shiny)
library(ggplot2)

# FRONTEND -----

ui <- fluidPage(

  titlePanel("Vergleich normalverteilter Mittelwerte mittels t-Test"),

  sidebarLayout(
    sidebarPanel(

      h3("Testgruppe"),
      numericInput("n1", "Anzahl", 100),
      numericInput("mean1", "Mittelwert", 180),
      numericInput("sd1", "Standardabweichung", 10),

      h3("Kontrollgruppe"),
      numericInput("n2", "Anzahl", 100),
      numericInput("mean2", "Mittelwert", 180),
      numericInput("sd2", "Standardabweichung", 10),

      h3("Dataframe"),
      sliderInput("rows", "Anzahl sichtbarer Datensätze", 10, min = 5, max = 25, step = 1),
      actionButton("run", "Versuch ausführen",
                   class = "btn-success btn-block btn-lg", icon = icon("dice"))

    ),
    mainPanel(

      tabsetPanel(
        type = "pills",

        tabPanel(
          "t-Test",
          plotOutput("hist"),
          verbatimTextOutput("ttest")),

        tabPanel(
          "Dataframe",
          fluidRow(

            column(
              3,
              "Testtabelle",
              tableOutput("table_test")
            ),

            column(
              3,
              "Kontrolltabelle",
              tableOutput("table_ctrl")
            )

          )

        )

      ) # end tabsetPanel
    ) # end mainPanel
  ) # end sidebarLayoutPanel
) # end fluidPage
```

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```
# BACKEND -----  
server <- function(input, output, session) {  
  
  test <- eventReactive(input$run, rnorm(input$n1, input$mean1, input$sd1))  
  ctrl <- eventReactive(input$run, rnorm(input$n2, input$mean2, input$sd2))  
  
  output$hist <- renderPlot({  
  
    grp <- c(rep("test", length(test())), rep("ctrl", length(ctrl)))  
    x <- c(test(), ctrl())  
    df <- data.frame(grp = grp, x = x)  
  
    ggplot(df, aes(x = x, fill = grp)) + geom_density(alpha = 0.2)  
  
  })  
  
  output$ttest <- renderPrint({  
  
    t.test(test(), ctrl())  
  
  })  
  
  output$table_test <- renderTable({  
  
    head(test(), input$rows)  
  
  })  
  
  output$table_ctrl <- renderTable({  
  
    head(ctrl(), input$rows)  
  
  })  
}  
  
shinyApp(ui, server)
```