|  |
| --- |
| # UI for app |
|  | shinyUI(pageWithSidebar( |
|  | # title |
|  | headerPanel("Select Options"), |
|  |  |
|  | #input |
|  | sidebarPanel |
|  | ( |
|  | selectInput("dataset","Data:", |
|  | list(iris = "iris", mtcars = "mtcars") |
|  | ), |
|  | uiOutput("variable"), # depends on dataset ( set by output$variable in server.R) |
|  | uiOutput("group"), # depends on dataset ( set by output$group in server.R) |
|  | selectInput("plot.type","Plot Type:", |
|  | list(boxplot = "boxplot", histogram = "histogram", density = "density", bar = "bar") |
|  | ), |
|  | checkboxInput("show.points", "show points", TRUE) |
|  | ), |
|  |  |
|  | # output |
|  | mainPanel( |
|  | h3(textOutput("caption")), |
|  | #h3(htmlOutput("caption")), |
|  | uiOutput("plot") # depends on input |
|  | ) |
|  | )) |

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| --- |
|  |
|  | shinyServer(function(input, output, session){ |
|  | #update variable and group based on dataset |
|  | output$variable <- renderUI({ |
|  | obj<-switch(input$dataset, |
|  | "iris" = iris, |
|  | "mtcars" = mtcars) |
|  | var.opts<-namel(colnames(obj)) |
|  | selectInput("variable","Variable:", var.opts) # uddate UI |
|  | }) |
|  |  |
|  | output$group <- renderUI({ |
|  | obj<-switch(input$dataset, |
|  | "iris" = iris, |
|  | "mtcars" = mtcars) |
|  | var.opts<-namel(colnames(obj)) |
|  | selectInput("group","Groups:", var.opts) # uddate UI |
|  | }) |
|  |  |
|  | output$caption<-renderText({ |
|  | switch(input$plot.type, |
|  | "boxplot" = "Boxplot", |
|  | "histogram" = "Histogram", |
|  | "density" = "Density plot", |
|  | "bar" = "Bar graph") |
|  | }) |
|  |  |
|  |  |
|  | output$plot <- renderUI({ |
|  | plotOutput("p") |
|  | }) |
|  |  |
|  | #plotting function using ggplot2 |
|  | output$p <- renderPlot({ |
|  |  |
|  | plot.obj<<-list() # not sure why input$X can not be used directly? |
|  | plot.obj$data<<-get(input$dataset) |
|  | plot.obj$variable<<-with(plot.obj$data,get(input$variable)) |
|  | plot.obj$group<<-with(plot.obj$data,get(input$group)) |
|  |  |
|  | #dynamic plotting options |
|  | plot.type<-switch(input$plot.type, |
|  | "boxplot" = geom\_boxplot(), |
|  | "histogram" = geom\_histogram(alpha=0.5,position="identity"), |
|  | "density" = geom\_density(alpha=.75), |
|  | "bar" = geom\_bar(position="dodge") |
|  | ) |
|  |  |
|  | require(ggplot2) |
|  | #plotting theme |
|  | .theme<- theme( |
|  | axis.line = element\_line(colour = 'gray', size = .75), |
|  | panel.background = element\_blank(), |
|  | plot.background = element\_blank() |
|  | ) |
|  | if(input$plot.type=="boxplot") { #control for 1D or 2D graphs |
|  | p<-ggplot(plot.obj$data, |
|  | aes( |
|  | x = plot.obj$group, |
|  | y = plot.obj$variable, |
|  | fill = as.factor(plot.obj$group) |
|  | ) |
|  | ) + plot.type |
|  |  |
|  | if(input$show.points==TRUE) |
|  | { |
|  | p<-p+ geom\_point(color='black',alpha=0.5, position = 'jitter') |
|  | } |
|  |  |
|  | } else { |
|  |  |
|  | p<-ggplot(plot.obj$data, |
|  | aes( |
|  | x = plot.obj$variable, |
|  | fill = as.factor(plot.obj$group), |
|  | group = as.factor(plot.obj$group), |
|  | #color = as.factor(plot.obj$group) |
|  | ) |
|  | ) + plot.type |
|  | } |
|  |  |
|  | p<-p+labs( |
|  | fill = input$group, |
|  | x = "", |
|  | y = input$variable |
|  | ) + |
|  | .theme |
|  | print(p) |
|  | }) |
|  | }) |
|  |  |