

```
###Class exercise -- Implement the code below to extract query results
## from the AdventureWorks Database
```

```
library(DBI)
library(shiny)
library(shinydashboard)
```

```
header <- dashboardHeader(title = 'Orders in Adventureworks')
```

```
side <- sidebarMenu(menuItem("KPIs", tabName = "dashboard", icon = icon("calculator")))
```

```
##define two dropdown boxes
```

```
pullCurr1 <-
  selectInput('year', 'Year:', choices = c('2003', '2002', '2001'))
pullCurr2 <-
  selectInput(
    'month', 'Month', choices = c(
      'January' = '1', 'February' = '2', 'March' = '3', 'April' = '4', 'May' = '5', 'June' = '6',
      'July' = '7', 'August' = '8', 'September' = '9', 'October' = '10', 'November' = '11', 'December' = '12'))
```

```
#define sidebar with the two dropdown boxes
```

```
sidebar <-
  dashboardSidebar(sidebarMenu(side),pullCurr1, pullCurr2)
```

```
### define the values/Query results in the center of the dashboard
```

```
info1 <- valueBox('Value', h3(textOutput("sales")), color = 'red')
info2 <- valueBox('Number', h3(textOutput("orders")), color = 'yellow')
```

```
row1 <- fluidRow(info1,info2)
```

```
body <- dashboardBody(row1)
```

```
## assemble the webpage
```

```
ui_adworks1 <- dashboardPage(header,sidebar,body)
```

```
## connect to a database server and specify the input and output
```

```
wmc3317_2server <- function(input, output) {
  # make the connection
  conn <-
    dbConnect(
      RMySQL::MySQL(), "wmc3317-2.bus.sfu.ca", dbname = "adventureworks", user = "nsaraf", password =
        "XXXXX")
```

```
#extract query results into R objects
```

```
output$sales <- renderText({
  sql <-
    paste0(
      'select count(*) from salesorderheader where YEAR(OrderDate) = ',input$year, ' AND month(OrderDate) = ', input$month)
  query <- dbGetQuery(conn,sql)[1,1]
})

output$orders <- renderText({
  sql <-
    paste0(
      'select count(*) from salesorderheader where YEAR(OrderDate) = ',input$year, ' AND month(OrderDate) = ', input$month)
  query <- dbGetQuery(conn,sql)[1,1]
})
}
```

```
## create the page using the ui object which contains the FORMATTING
```

```
## and the server object which contains the CONTENT
```

```
shinyApp(ui_adworks1, wmc3317_2server)
```