Module 7: ShinyR

Case Study

Things you will learn in this case-study:

1. Install and load shiny package
2. Components of shinyR
3. Fluid page and server-side logic
4. Shiny App, Shiny Text

Back Ground:

Research Companies like KPMG, Deloitte etc publish and provide sectoral research report on a time to time basis. You are working in one of such companies which wants to give an interactive product to its customers. This will help them differentiate their offerings with established giants like KPMG. This is where they require your support.

Overview of the problem:

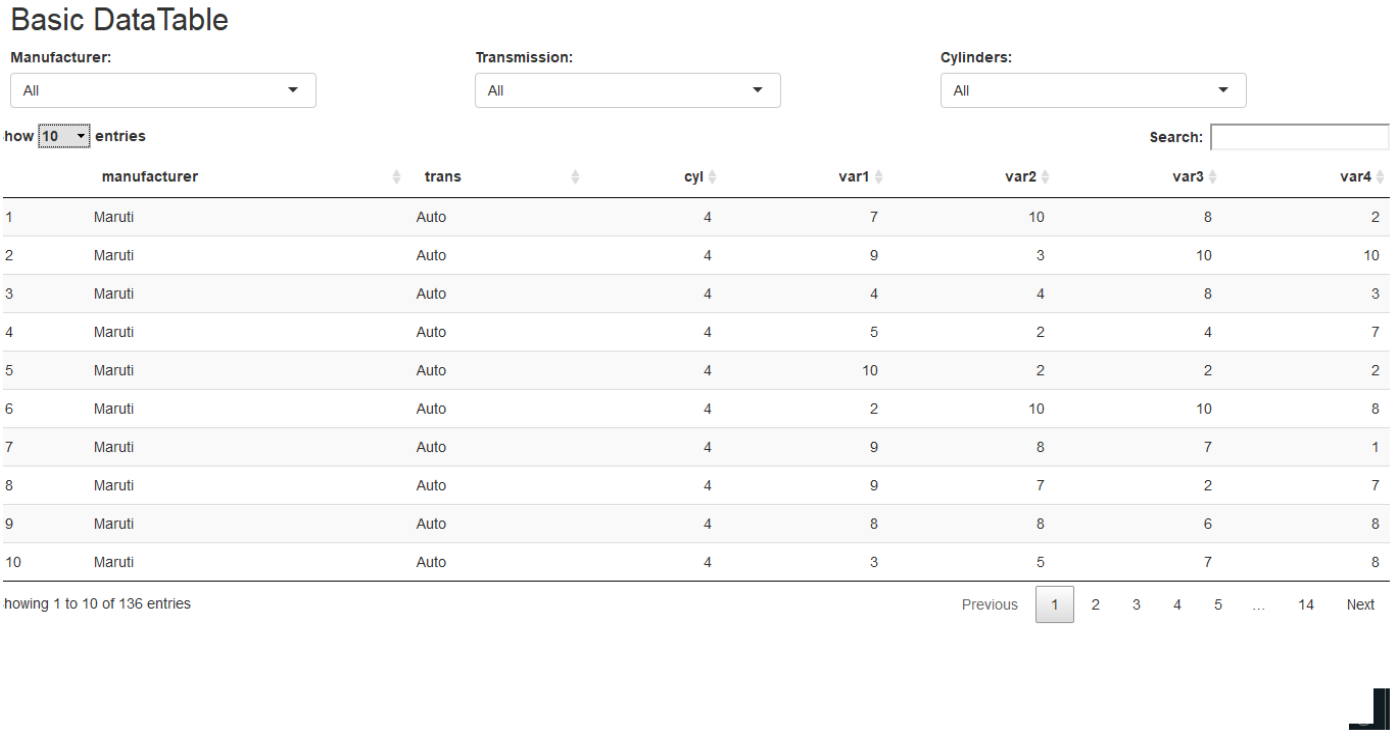
In this project, you will play the role of Data Scientist for the research company, named. XYZ Ltd, and you have been asked to create a web app to compare the 4 car manufacturers against three main parameters – manufacturer, transmission and cylinders. Post this, the Analytics Manager will demonstrate the product to its CEO. The Data you will be dealing is dummy data and is not real. The data is in data frame format which has been stored in the file named 'app2data.csv'

Data set description:

manufacturer: Four – Maruti, Honda, BMW, Tata
trans: takes two values – Auto and Manual
cyl : no of cylinders
var1, var2, var3, var4: anonymized variables

Objective:

Based on the knowledge you acquired in Module, you are expected to create an app using R Shiny which will publish the below mentioned output.



You should do the following to create the above shiny output:

1. Load the required libraries and the data.

2. Understand the data structure and provide concise summary on the following –
   - no of observations
   - total number of variables
   - number of continuous variables
   - number of categorical variables
   - number of variables which have missing values

3. Create separate UI and server files and save it in a separate folder where you have kept the data as well.

4. The entire UI will be built by passing comma-separated arguments into the fluidPage()function. So, Let's build the UI interface of the app.
   - Start with the title panel and add the text 'Basic Data Table'. (please refer the above screenshot to fill this)
   - Create a new Row in the UI for selectInputs – use three variables – manufacturer, trans, and cyl. (please refer the above screenshot to fill this)

- Create a new row for the table which will output the datatable as per the selection. (please refer the above screenshot to fill this)

  Please review if the UI plot looks like the one in the screenshot.

5. Now, Implement server logic to create outputs
   - Recall that we have 3 inputs: for our 3 variables.
   - Create output for table.

   Once you have set up the app, please run the app and confirm if you are getting the same output as the screenshot.

Submission should include the following:

1. Please build the app as per the instructions outlined above and match it with the screenshot shown at the first page.
2. Summary on approach should be documented.
3. R Code File – both ui and server files.