An Interactive Web Application to Explore Data

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A   Description of the Proposed Project

A.1   Abstract

Exploratory data visualization allows data scientists to see the data and identify interesting pattern which is very useful for model building and data analysis. But this often requires to explore data interactively. With the current development of web tools, we can use statistical software to produce online dashboard which can facilitate interactive data exploration. This project intends to develop such a dash board so that anyone one can upload a data set and explore the data online.

A.2   Project Description

Through significant advancements in technology and business intelligence, companies now seek to have a more vigorous system that utilizes data. This allows analysis to be conducted by business partners through developed applications. Often in the corporate world, when a data source is rendered to have no purpose it is often discarded or wastefully stored with little or no purpose. This is inefficient and sometimes may be significantly expensive. This project intends to provide an interactive tool to explore data which would otherwise be dormant and of no use. Perhaps it would be a primary source of further analysis and model building.

To provide interactive environment, we intend to use the R [2] package Shiny [3]. This will allow us to create a dashboard where all the interactive tools will be present for convenient exploration of data. One such example of such a dashboard can be found in [1].

A.3 Project timeline:

February 1, 2015 - June 30, 2015

Month	Task to finish
February	Finalize the design
March	Implement the plan using R and shiny
April	Testing and debuging. Obtain feedback
May	Incorporate the suggestions obtained from feedback
June	Deliver the project and submit the report

References

[1] Mahbubul Majumder, *A Shiny application to explore USA crime data*, 2014, uRL: https://mahbub.shinyapps.io/usa-crime/.

[2] R Development Core Team, *R: A Language and Environment for Statistical Computing*, R Foundation for Statistical Computing, Vienna, Austria, 2012, ISBN 3-900051-07-0. [Online]. Available: http://www.R-project.org/

[3] RStudio, Inc, *Easy web applications in R.*, 2013, uRL: http://www.rstudio.com/shiny/.