Code and Slides
All the code and slides will be made available on my user2017.geodataviz github repo before July 3rd, 2017.

Pre-Tutorial Setup
Please do this well before the tutorial. The bandwidth at the venue could be very limited and the docker image I will be using is approximately 1.6G. The better prepared you come for the tutorial the more you will get out of it.

- Install docker, and docker toolbox (only for Windows and Mac).
- Either using the kitematic GUI tool or command line pull the bhaskarvk/rgeodataviz image. Command line: docker pull bhaskarvk/rgeodataviz

Structure of the Tutorial
This is going to be whirlwind tour of options for plotting spatial data using R. Instead of deep diving in to any one particular approach, the focus is going to be on gaining a broad understanding of many visualization techniques. You will be exposed to many R packages and tools and at times it may overwhelm you. But even then you will come out of this with a better understanding and appreciation of all the visualization options in R when it comes to spatial data.

Part 1: Introduction
from 9:30 - 9:50
I will go over the objectives and the scope of the tutorial, introduce myself, get to know the audience a bit. We will also try and solve any last minute setup issues, in case someone has them.

Part 2: R Packages
from 9:50 - 10:05
In this part I will briefly go over some major R packages available for working with spatial data. We will cover R packages for data containers, reading/writing external data, spatial operations, and finally plotting spatial data.

Part 3: Spatial Data
from 10:05 - 10:20
Here we will go over the major R packages for storing spatial data in an R environment. We will also explore briefly some common ways to interact with spatial data stored in files/databases.

5 Minutes break
Part 4: Spatial Data Operations
from 10:25 - 10:40
Here we will explore some common spatial operations on data. This involves subsetting, joining spatial data. Determining centroids, convex hulls, voronoi regions etc.

Part 5: Ways to Output Maps
from 10:40 - 11:00
In this section we will explore how to integrate maps in to your documents and applications. We will explore options for print maps in PDFs, to online and/or interactive maps in web pages. We will also explore dynamic mapping using Shiny.

30 minutes break

Part 6: Static Maps
from 11:30 - 12:05
Maps that are put in documents, and web pages. Maps than can be printed out. We will explore various mapping techniques, but primarily focused on ggplot2 based techniques.

5 minutes break

Part 7: Interactive Maps
from 12:10 - 12:50
Maps meant for the web. Maps that users can interact with and explore in more details. Maps that can be changed dynamically in a Shiny application on user interaction.

Question/Answers, Discussion
from 12:50 - 1:00
General discussion, and question and answers.