Plot Polygon with ggplot2

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This script contains all the code from my medium blog post.

Read in and plot New York City Zip Code map.

```
# set directory to where the zip code shapefile is
filepath = "~/Documents/HongGao/MediumBlog_R/1.ggplot2_polygon"
setwd(filepath)
# read in zip code shapefile
zipcode <- readOGR("ZIP_CODE_040114/", "ZIP_CODE_040114")
```

```
## OGR data source with driver: ESRI Shapefile
## Source: "/Users/HongG/Documents/HongGao/MediumBlog_R/1.ggplot2_polygon/ZIP_CODE_040114", layer: "ZIP_
## with 263 features
## It has 12 fields
```

```
# generate a unique ID for each polygon
zipcode@data$seq_id <- seq(1:nrow(zipcode@data))
# plot it
plot(zipcode)
```

Generate random data to plot with.

```
# generate random numbers from a uniform distribution
zipcode@data$continuous_var <- runif(nrow(zipcode@data))
# create some NAs
# values below 0.1 are changed to NA
zipcode@data[zipcode@data$continuous_var < 0.1,]$continuous_var <- NA
# generate categotical variable based on continuous var
zipcode@data$categorical_var <- .bincode(zipcode@data$continuous_var,
                                         # calculate 33th and 66th percentile
                                         breaks = quantile(zipcode@data$continuous_var,
                                                           seq(0,1,0.33),
                                                           # keep NA as NA
                                                           na.rm = T),
                                         include.lowest = T)
```

Save the changed shapefile to current directory.

```
writeOGR(zipcode, "nyczipcode", "nyc_zipcode", driver = "ESRI Shapefile")
```