

How to Draw Maps

@cjfiscus

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How to plot coordinates on a map using ggmap

```
## read in data
locs<-read.delim("data/coords.txt", header=T)

## check formatting
head(locs)

##   latitude longitude
## 1 31.48000  -7.45000
## 2 34.07870  -4.19891
## 3 31.23660  -7.81285
## 4 31.23660  -7.81285
## 5 31.41988  -7.52620
## 6 31.41988  -7.52620

## install libraries if not already installed, load libraries
if (!require("pacman")) install.packages("pacman")

## Loading required package: pacman

pacman::p_load(ggplot2, ggmap, maps, mapdata)

# set map, check out ?map_data for more options
map<-map_data("world")

## Define map using ggplot syntax
g<-ggplot() +
  # draw map shape (can make outline any color by changing color)
  geom_polygon(data=map, aes(x=long, y=lat, group=group), fill=NA, color="grey27") +

  # add points to map
  geom_point(data=locs, aes(x=longitude, y=latitude), color="blue", size=1) +
  # set view boundaries (x is longitude, y is latitude)
  coord_fixed(xlim=c(-130, 100), ylim=c(-30, 70),ratio=1.3) +
  # remove that ugly grey background
  theme_classic()

## plot map
print(g)
```

