Word Document

### Chart 1

knitr::opts\_chunk$set(echo=TRUE)  
  
library(plotly)

## Loading required package: ggplot2

##   
## Attaching package: 'plotly'

## The following object is masked from 'package:ggplot2':  
##   
## last\_plot

## The following object is masked from 'package:stats':  
##   
## filter

## The following object is masked from 'package:graphics':  
##   
## layout

library(reshape2)  
library(raster)

## Loading required package: sp

##   
## Attaching package: 'raster'

## The following object is masked from 'package:plotly':  
##   
## select

library(weathermetrics)  
  
GB\_auto <- raster::getData('GADM',   
 country="GBR",   
 level=0,   
 #set the path to store your data in  
 path='Practical\_4\_Data',   
 download=TRUE)  
  
GBclim <- raster::getData("worldclim",   
 res=5,   
 var="tmean",  
 #set the path to store your data in  
 path='Practical\_4\_Data',   
 download=TRUE)  
  
month <- c("Jan", "Feb", "Mar", "Apr", "May", "Jun",   
 "Jul", "Aug", "Sep", "Oct", "Nov", "Dec")  
  
names(GBclim) <- month  
GBtemp <- crop(GBclim, GB\_auto)  
exactGB <- mask(GBtemp, GB\_auto)  
  
#WorldClim data has a scale factor of 10!  
exactGB <- exactGB/10  
  
alldf=as.data.frame(exactGB)  
squishdata <- melt(alldf, measure.vars=names(alldf))  
  
# split the data for plotly based on month  
jan<-subset(squishdata, variable=="Jan", na.rm=TRUE)  
jun<-subset(squishdata, variable=="Jun", na.rm=TRUE)  
  
# give axis titles  
x <- list (title = "Temperature")  
y <- list (title = "Frequency")  
  
# set the bin width  
xbinsno<-list(start=-5, end=20, size = 2.5)  
  
# plot the histogram calling all the variables we just set  
ihist<-plot\_ly(alpha = 0.6) %>%  
 add\_histogram(x = jan$value,  
 xbins=xbinsno, name="January") %>%  
 add\_histogram(x = jun$value,  
 xbins=xbinsno, name="June") %>%   
 layout(barmode = "overlay", xaxis=x, yaxis=y)  
  
ihist

## Warning: Ignoring 21031 observations  
  
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### Chart 2

x <- 1 + 1  
  
y <- 2 + 2

### Chart 3

z <- x + y