Lab6

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Load necessary libraries

library(tidyverse) library(dsbox)

Load the Denny's data

dennys <- read_csv("dennys.csv") # Load the La Quinta's data laquinta <- read_csv("laquinta.csv") # Load the states data states <- read_csv("states.csv")

Calculate locations per thousand square miles for Denny's

dennys_density <- dn %>% count(state) %>% inner_join(states, by = c("state" = "abbreviation")) %>% mutate(dennys_per_thousand_sq_miles = n / (area / 1000))

Calculate locations per thousand square miles for La Quinta's

laquinta_density <- lq %>% count(state) %>% inner_join(states, by = c("state" = "abbreviation")) %>% mutate(laquinta_per_thousand_sq_miles = n / (area / 1000))

Print results

cat("Denny's locations per thousand square miles:") print(dennys_density)

cat("La Quinta's locations per thousand square miles:") print(laquinta_density) # Add an establishment variable dn <- dn %>% mutate(establishment = "Denny's")

lq <- lq %>% mutate(establishment = "La Quinta")

Combine the datasets

dn_lq <- bind_rows(dn, lq)

Create a scatter plot of the locations

ggplot(dn_lq, mapping = aes(x = longitude, y = latitude, color = establishment)) + geom_point() + labs(title = "Locations of Denny's and La Quinta", x = "Longitude", y = "Latitude", color = "Establishment")