Kable(head(mtcars), digit=1)

Datatable

``` {css, echo=false}

Body {

Background-clor:black;

Filter: invert(1);

}

```

handling

Output:

Powerpoint\_presentation

Isolides\_presentation: default

A simple table

Knitr::kable(tabl, caption = “A simple table”)

Beamer\_presentation

Tufte::tufte\_html:

Tufte\_cariant:envisioned

rolldown::scrollama\_sidebar:default

rticles::jss\_article:

pandoc\_args: [-v, documentclass=jss]

bookdown

pagedown

rename column name

dplyr package

rename(.data, ...)

rename\_with(.data, .fn, .cols = everything(), ...)

rename(iris, petal\_length = Petal.Length)

merge

left

append

sort

arrange()

transpose data

filter data

select data

ls()

rm()

data()

class()

str()

ind <- which(murders$state == "California")

murders %>% top\_n(5, rate)

murders <- mutate(murders, rate = total / population \* 100000)

filter(murders, rate <= 0.7)

murders[, population\_in\_millions := population / 10^6]

<https://rafalab.github.io/dsbook/data-table.html>

library(ggthemes)

library(ggrepel)

r <- murders %>%

summarize(rate = sum(total) / sum(population) \* 10^6) %>%

pull(rate)

murders %>% ggplot(aes(population/10^6, total, label = abb)) +

geom\_abline(intercept = log10(r), lty = 2, color = "darkgrey") +

geom\_point(aes(col=region), size = 3) +

geom\_text\_repel() +

scale\_x\_log10() +

scale\_y\_log10() +

xlab("Populations in millions (log scale)") +

ylab("Total number of murders (log scale)") +

ggtitle("US Gun Murders in 2010") +

scale\_color\_discrete(name = "Region") +

theme\_economist()

ch 10.7

past\_year <- 1970

present\_year <- 2010

years <- c(past\_year, present\_year)

gapminder %>%

filter(year %in% years & !is.na(gdp)) %>%

mutate(west = ifelse(group == "West", "West", "Developing")) %>%

ggplot(aes(dollars\_per\_day)) +

geom\_histogram(binwidth = 1, color = "black") +

scale\_x\_continuous(trans = "log2") +

facet\_grid(year ~ west)

data(murders)

murders %>% mutate(murder\_rate = total / population \* 100000) %>%

mutate(state = reorder(state, murder\_rate)) %>%

ggplot(aes(state, murder\_rate)) +

geom\_bar(stat="identity") +

coord\_flip() +

theme(axis.text.y = element\_text(size = 6)) +

xlab("")

west <- c("Western Europe","Northern Europe","Southern Europe",

"Northern America","Australia and New Zealand")

dat <- gapminder %>%

filter(year%in% c(2010, 2015) & region %in% west &

!is.na(life\_expectancy) & population > 10^7)

dat %>%

mutate(location = ifelse(year == 2010, 1, 2),

location = ifelse(year == 2015 &

country %in% c("United Kingdom", "Portugal"),

location+0.22, location),

hjust = ifelse(year == 2010, 1, 0)) %>%

mutate(year = as.factor(year)) %>%

ggplot(aes(year, life\_expectancy, group = country)) +

geom\_line(aes(color = country), show.legend = FALSE) +

geom\_text(aes(x = location, label = country, hjust = hjust),

show.legend = FALSE) +

xlab("") + ylab("Life Expectancy")

different 2015-2020 \*\*\* map

library(ggrepel)

dat %>%

mutate(year = paste0("life\_expectancy\_", year)) %>%

select(country, year, life\_expectancy) %>%

pivot\_wider(names\_from = "year", values\_from="life\_expectancy") %>%

mutate(average = (life\_expectancy\_2015 + life\_expectancy\_2010)/2,

difference = life\_expectancy\_2015 - life\_expectancy\_2010) %>%

ggplot(aes(average, difference, label = country)) +

geom\_point() +

geom\_text\_repel() +

geom\_abline(lty = 2) +

xlab("Average of 2010 and 2015") +

ylab("Difference between 2015 and 2010")