**Puerto Rico Hurricane Mortality: Part 2**

This assessment continues from the previous page and assumes that you have defined all of the variables from those questions. In particular, make sure s is defined as in the previous exercises.

**Question 8**

1.0/1.0 point (graded)

Notice that towards the end of the page defined by s you see a *"Total"* row followed by rows with other summary statistics. Create an object called tail\_index with the index of the *"Total"* entry.

What is the value of tail\_index? correct

35 Loading

You have used 1 of 10 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 9**

1.0/1.0 point (graded)

Because our PDF page includes graphs with numbers, some of our rows have just one number (from the y-axis of the plot). Use the str\_count function to create an object n with the count of numbers in each row.

How many rows have a single number in them?

You can write a regex for a number like this \\d+.

correct

2 Loading

You have used 10 of 10 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 10**

1.0/1.0 point (graded)

We are now ready to remove entries from rows that we know we don't need. The entry header\_index and everything before it should be removed. Entries for which n is 1 should also be removed, and the entry tail\_index and everything that comes after it should be removed as well.

How many entries remain in s? correct

30 Loading

You have used 1 of 10 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 11**

1/1 point (graded)

Now we are ready to remove all text that is not a digit or space. Do this using regular expressions (regex) and the str\_remove\_all function.

In regex, using the ^ inside the square brackets [] means *not*, like the ! means not in !=. To define the regex pattern to catch all non-numbers, you can type [^\\d]. But remember you also want to keep spaces.

Which of these commands produces the correct output?

s <- str\_remove\_all(s, "[^\\d]")

s <- str\_remove\_all(s, "[\\d\\s]")

s <- str\_remove\_all(s, "[^\\d\\s]")

s <- str\_remove\_all(s, "[\\d]")

correct

You have used 1 of 2 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 12**

4.0/4.0 points (graded)

Use the str\_split\_fixed function to convert s into a data matrix with just the day and death count data:

s <- str\_split\_fixed(s, "\\s+", n = 6)[,1:5]

Now you are almost ready to finish. Add column names to the matrix: the first column should be day and the next columns should be the header. Convert all values to numeric. Also, add a column with the month. Call the resulting object tab.

What was the mean number of deaths per day in September 2015? correct

75.3 Loading

What is the mean number of deaths per day in September 2016? correct

79 Loading

Hurricane María hit Puerto Rico on September 20, 2017. What was the mean number of deaths per day from September 1-19, 2017, before the hurricane hit? correct

83.7 Loading

What was the mean number of deaths per day from September 20-30, 2017, after the hurricane hit? correct

121.5 Loading

You have used 5 of 10 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 13**

1/1 point (graded)

Finish it up by changing tab to a tidy format, starting from this code outline:

tab <- tab %>% \_\_\_\_\_(year, deaths, -day) %>%

mutate(deaths = as.numeric(deaths))

tab

What code fills the blank to generate a data frame with columns named "day", "year" and "deaths"?

separate

unite

gather

spread

correct

You have used 1 of 2 attempts Some problems have options such as save, reset, hints, or show answer. These options follow the Submit button.

**Question 14**

1.5/2.0 points (graded)

Make a plot of deaths versus day with color to denote year. Exclude 2018 since we have no data. Add a vertical line at day 20, the day that Hurricane María hit in 2017.

Which of the following are TRUE?

Check all correct answers.

September 2015 and 2016 deaths by day are roughly equal to each other.

The day with the most deaths was the day of the hurricane: September 20, 2017.

After the hurricane in September 2017, there were over 100 deaths per day every day for the rest of the month.

No days before September 20, 2017 have over 100 deaths per day.

partially correct

Answer

Incorrect:

Try again. If you look at the 2017 line, the peak death date is actually September 25, 2017.

You have used 2 of 2 attempts