## main()

Runs program and calls the functions.



## load\_penguins(csv)

Load the penguins.csv file Read the csv file into a pandas dataframe

Input: penguins.csv file

Output: dataframe with all columns



avg\_body\_mass(species,sex, body mass)

- Group data by species and sex
- Calculate average body mass for each group

Input: penguins.csv file Output: table of averages



## correlation by island(island,flipper,bill)

Calculate the correlation coefficient between bill length and flipper length for each island

Input: dataframe of island, flipper length, and bill length Output: dictionary of correlation coefficients



## Df\_clean

Create a clean data frame containing flipper length, bill length, and island

Input: penguins.csv
Output: clean dataframe



generate\_report(correlation\_by\_island, avg\_body\_mass) Displays the correlation coefficient of flipper length, bill length between islands, and the average body mass for each species and sex.

Input: correlation\_by\_island(dict), and avg\_body\_mass(table)
Output: txt file