

Dataset: Palmer Penguins

Columns: species, island, sex, flipper_length_mm, body_mass_g

Calculation:

Average body mass by species by island

percentage above flipper-length threshold within species by sex

Function decomposition

load_penguins(csv_file)

FUNCTION: read CSV and turn into dictionary

INPUT: csv_file (str)

OUTPUT: rows (list[dict])

clean_penguin_row()

Function : clean all the spaces and commas

INPUT: row (dict)

OUTPUT: row (dict)

group_by_keys(rows, keys)

FUNCTION: group by different keys

INPUT: rows (list[dict])

OUTPUT: buckets (dict[tuple, list[dict]])

calculate_avg_body_mass_by_species_island(rows)

FUNCTION: calculate avg body mass by species x island

INPUT: rows (list[dict])

OUTPUT: results (list[dict])

generate_csv_report(rows, outfile)

FUNCTION: turn dictionary into csv

INPUT: rows (list[dict]), outfile (str)

OUTPUT: None

Teammates: None