# BMI Analysis & Charting

## The Program

A single user’s BMI or select a character

or

Ask user’s height and weight

Generate some population data

Calculate the BMI

Display category

Display statistics and plots indicating how user fits in wrt gender other categories

Guess the planet or some other feature at the end.

## The Components

The main program, calls all the top-level functions and checks progress to decide what to do. (2) (3)

get\_user\_data\_choice (3)

input none

return “starwars” or “realistic”

Generate a population dataset with height, weight, gender, planet?

get\_population (me)

input “starwars” or “realistic”

return data.frame with id/name, height, weight, gender, planet

get\_realistic\_data (2)

input none

return data.frame with id/name, height, weight, gender, planet

get\_starwars\_data (1)

input none

return data.frame with id/name, height, weight, gender, planet

get\_height\_weight (1)

input none

return vector named numbers height and weight

get\_character (1)

input none

return “character name”

calculate\_bmi (4)

input height weight

output bmi

categorise\_bmi (4)

input bmi

output BMI category

plot\_bmi (3)

input population data frame and user/characters BMI (number) and label name

produce plot

return none

Ask user height and weight. What checking is required?

Ask user to select a character. How will they know which characters are available?

Calculate the BMI for the user or the character.

Calculate the BMI for the population.

Work out the BMI category for the user or the character.

(Ask the user what plot is required.)

(Ask the user what analysis is required.)

Display the (required) plots.

Display the (required) analyses.

## The Tasks