What, Why & How

What

Three step process for users:

1. Input personal information
   - Calculates calorie goals
2. Specify macro-nutrient mix
   - Sets target macros
3. Select Favourite Foods
   - Generates meal ideas

Results:

- Daily Calorie targets
- Macro nutrient mixes
- Sample meal plans genera

Why

Benefits of planning

1. Structure/ accountability.
Counting calories lets you know exac d you should eat and plan meals a gly.

2. motivational.
When your diet improves, the imm health benef – weight loss, in gy, etc. d to positive behavioral c habits.

3. better choices.
Counting es can help yo ify which foods are e nut nse and whic ds lack nutritional

4. ge exe
Kno at exercise helps burn calories can inspire you to ge f the couch and move.

(A nclude cons/risks – time required, rt, behaviour, disconnects etc)

How

- Harris nedict formula for BMR
- Diet s for Macro mixes
  ce for Food content (P/F/C)
  User choice for available foods/menu

- Follow 3-step process ->

Done

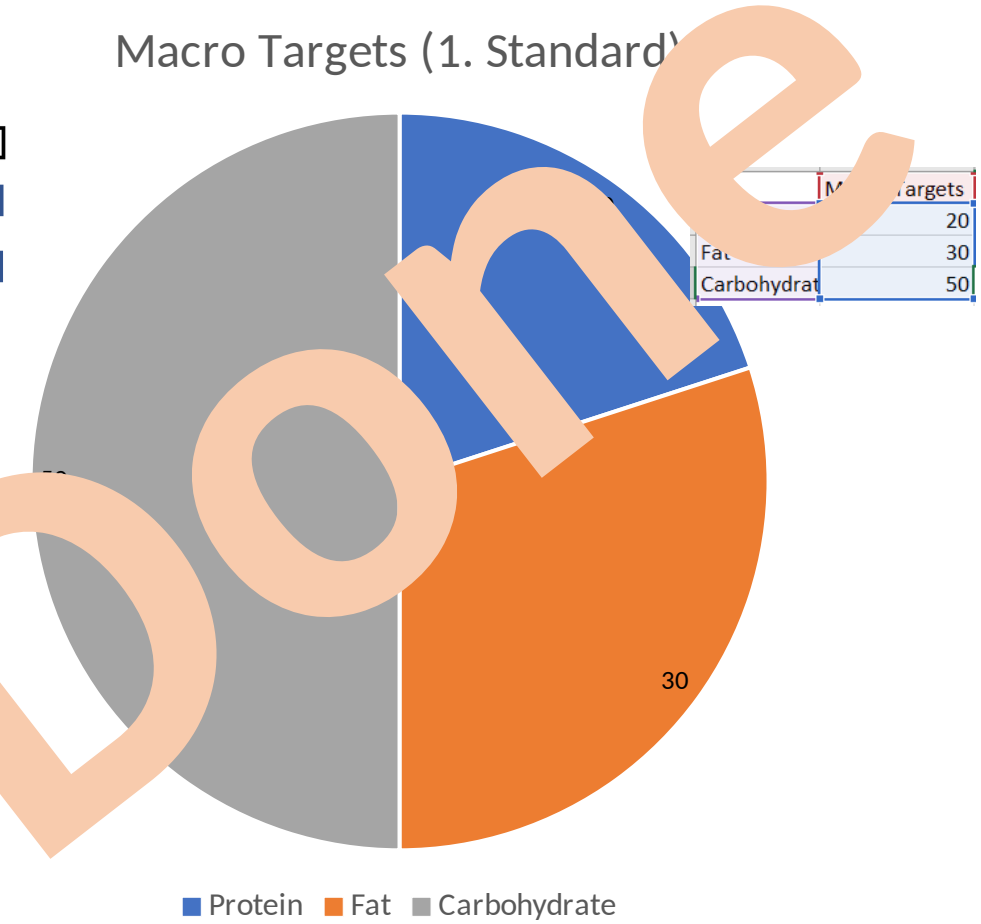
Step 1 - Populate the input fields below to calculate your calorie goals

Metric	Units	User Input	
Height	cm inches	Input H	
Weight	kg lbs	Weight	
Age	years	In re	
Gender		ctGe der	
Activ l		stimate Activity Level	
Calories to:			
	Maintain	Output	Formula
	Gain weight	Output	Formula
	Lose weight	Output	Formula

Done

Step 2 - Select your goals below to calculate your macro-nutrient splits:

1. Standard ☑
2. High Protein ☐
3. Low Carb ☐



Done

Step 3 - Tick/check boxes for foods you like from each category below to generate sample meal-plan ideas which fit your caloric goals & macro-nutrient targets

Protein
- ❑ Chicken
- ❑ Eggs
- ❑ Turkey
- ❑ Salmon
- ❑ Cod
- ❑ Steak
- ❑ Pork
- ❑ Haddock
- ❑ Whiting
- ❑ Mackerel

Carbohydrate
- ❑ Bread
- ❑ Pasta
- ❑ Rice
- ❑ Oats
- ❑ Cereal
- ❑ Bananas
- ❑ Oranges
- ❑ Apples
- ❑ Potatoes
- ❑ Sweet Potatoes
- ❑ Beans/Pulses
- ❑ Quinoa

Fats
- ❑ Coconut Oil
- ❑ Olive Oil
- ❑ Butter
- ❑ Bacon
- ❑ Cheese
- ❑ Cream
- ❑ Almonds
- ❑ Walnuts
- ❑ Brazil Nuts
- ❑ Seeds

Click to generate sample Meal-plan Idea 

Breakfast
- Set Calories = Daily Calories * 0.30
- Set protein, carb, fats to Macros * 0.3 each / per gram
- Select Random Protein + random Carb + random Fat

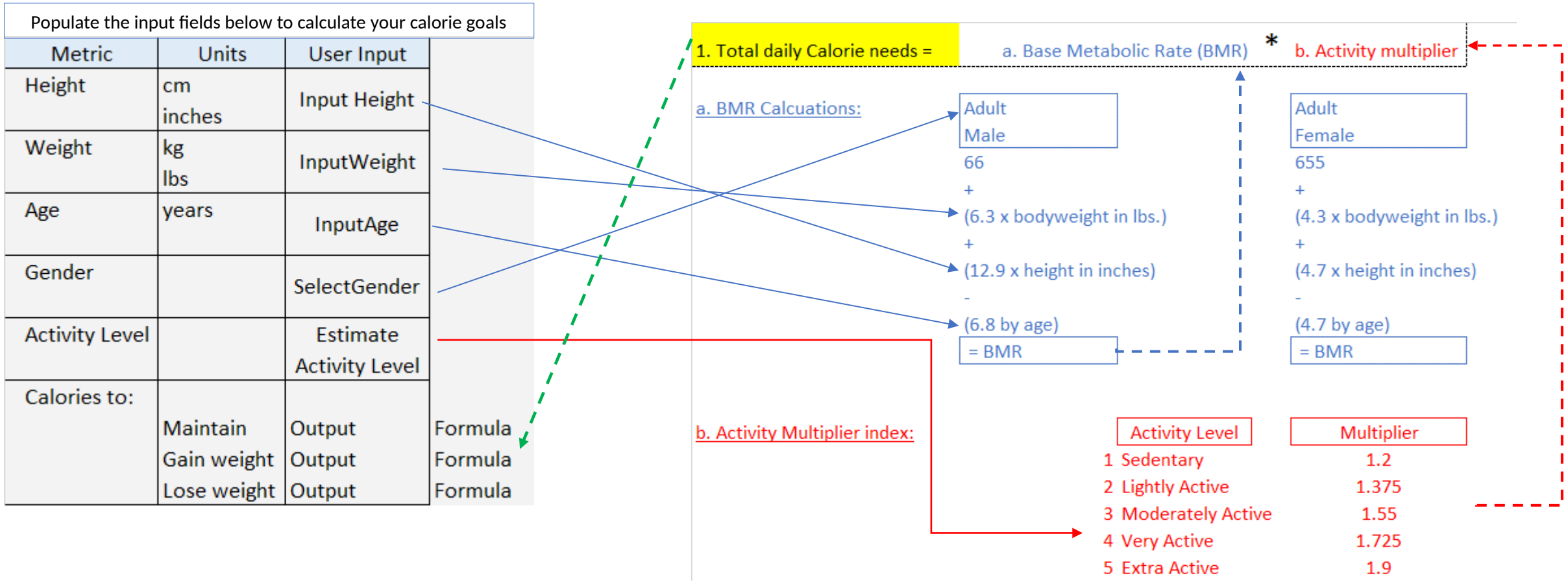
Lunch
- Set Calories = Daily Calories * 0.30
- Set protein, carb, fats to Macros * 0.3 each / per gram
- Select Random Protein + random Carb + random Fat

Dinner
- Set Calories = Daily Calories * 0.30
- Set protein, carb, fats to Macros * 0.3 each / per gram
- Select Random Protein + random Carb + random Fat

Click to share this meal plan on Twitter / Instagram 

Click to export to CSV 

Formulas & Logic (For Javascript)



Checks & controls (examples)

- Age check
  - If <18 – throw a warning to come back when old enough
- Calorie check
  - If calories fall below recommended minimums - warning

Step 1

Initial Calorie Calculation

Browser window

Personal Data	Units	User Input
Height	cm inches	Input Height
Weight	kg lbs	InputWeight
Age	years	InputAge
Gender	M / F	SelectGender
Activity Level	1 - 5	Estimate Activity Level
Calories to:	Maintain Gain weight Lose weight	Outputs

Javascript

User inputs their height
Allow inches or centimetres
Do not allow height to be too small or too large
Do not allow to be blank

→ Height Variable

User inputs their height
Allow kilograms or pounds
Do not allow weight to be too small or too large
Do not allow to be blank

→ Weight Variable

User inputs their age
Measured in years
Do not allow age to be <18
Do not allow age to be >120

→ Age variable

User selects Gender from dropdown menu
Set to either Male or Female - used in BMR formula

→ Gender Variable

User selects an estimated activity level from a dropdown menu
1 Sedentary
2 Lightly Active
3 Moderately Active
4 Very Active
5 Extra Active

→ Activity Level variable

Maintenance Daily Calorie goal is output of calculation (See BMR formula)
To obtain "Gain Weight" goal - take maintenance plus 500 calories
To obtain "Lose Weight" goal - take maintenance less 500 calories
User ticks a box for which of the three scenarios to carry forwards to Step 2

→ Calculation → Calorie variable

1. Total daily Calorie needs = a. Base Metabolic Rate (BMR) * b. Activity multiplier

a. BMR Calculations:

Adult Male	Adult Female
66	655
+	+
(6.3 x bodyweight in lbs.)	(4.3 x bodyweight in lbs.)
+	+
(12.9 x height in inches)	(4.7 x height in inches)
-	-
(6.8 by age)	(4.7 by age)
= BMR	= BMR

b. Activity Multiplier index:

Activity Level	Multiplier
1 Sedentary	1.2
2 Lightly Active	1.375
3 Moderately Active	1.55
4 Very Active	1.725
5 Extra Active	1.9

Step 2

Macro Split Calculation

Javascript

Calories to:	Examples:	
Maintain	2500	Get Step 1
Gain weight	3000	Output
Lose weight	2000	

Pre-defined Macro scenario splits:

Scenario 1: Standard split

Macronutrient	Allocation	Calories	Daily Grams
Protein	20%	500	125g
Carbohydrate	30%	750	188g
Fat	50%	1250	139g
		2500	451g

Scenario 2: High Protein

Macronutrient	Allocation	Calories	Daily Grams
Protein	45%	1125	281g
Carbohydrate	30%	750	188g
Fat	25%	625	69g
		2500	538g

Scenario 3: Low Carb

Macronutrient	Allocation	Calories	Daily Grams
Protein	20%	500	125g
Carbohydrate	10%	250	63g
Fat	70%	1750	194g
		2500	382g

Lookup table/array:

Macronutrient	Calories per 1g
Protein	4
Carbohydrate	4
Fat	9

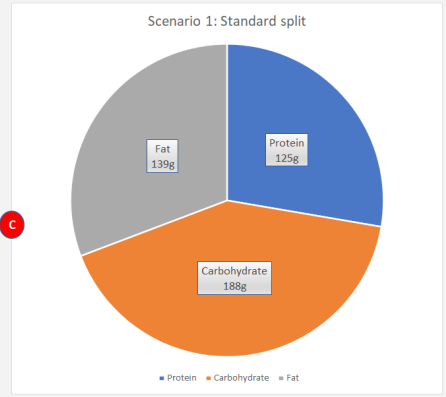
Browser window

User selection:

A
1 Standard ☒
2 High Protein ☐
3 Low Carb ☐

B

C



Checks & controls

- Age check
  - If <18 – throw a warning to come back when old enough
- Calorie check
  - If calories fall below recommended minimums – warning
- Gender
  - Male or Female

Random Number generated to select random foods from macro nutrient arrays

I114

=VLOOKUP(RANDBETWEEN(1,5),$H$105:$M$109,2,0)

Start with PDCT

	Protein	Carb	Fat	Total	
calories	500	750	1,250	2,500	from step 1

Standard static % split per meal

Use Macro Mix (selected by user in step 2) to allocate %'s across macronutrients (prot/carb/fat)

Sample Meal ratios: 20% 30% 50% from step 2

meal plan ratio calculator

			Protein	Carb	Fat	Total	
	25%	Breakfast	125	188	313	625	step 3
	35%	Lunch	175	263	438	875	step 3
split per meal	40%	Dinner	200	300	500	1,000	step 3 check
		Total	500	750	1,250	2,500	step 4 TRUE
		check	TRUE	TRUE	TRUE		

Use meal splits (pre-determined/static %) to allocate calories by macronutrient by meal

Food lookup index – cross referenced by meal plan generator

Foods lookup index

index#:	Protein	cal/g	Carb	cal/g	Fat	cal/g	
1	chicken	2	bread	3	cheese	4.02	Final index will be larger to provide variety
2	fish	2	pasta	1.31	Olive Oil	8.84	Initial index to test & develop formulas
3	Turkey	1.9	Potatoes	0.77	Nuts	6.07	
4	Pork	2.42	Quinoa	1.2	Mixed Seec	5.59	
5	steak	3	rice	1.3	Avocado	1.6	

Index is used in meal plan generator lookup for each food group

meal plan generator

	Protein			Carbohydrate			Fat		
	food	grams	calories	food	grams	calories	food	grams	calories
Meal:									
Breakfast	fish	63	125	pasta	143	188	Avocado	195	313
Lunch	chicken	88	175	pasta	200	263	Olive Oil	49	438
Dinner	chicken	100	200	rice	231	300	cheese	124	500
Total			500			750			1,250

*Also Include 1 serving of Fresh Vegetables with each meal (Broccoli, Lettuce, Cauliflower, Red/Green/Yellow Peppers, Mushrooms etc)

**Fresh vegetables are often considered "free" caloric content, due to their other health benefits - fibre, micronutrients, glycemic index etc