

Build an Interactive Malta Household Budget Calculator

Act as a senior financial application developer and user-experience designer. Build a fully functional, editable, responsive **Malta Household Budget Calculator**.

Subtitle: “**Know where your money goes. See what's left.**”

This must be a working interactive application, not a report, screenshot, static prototype or spreadsheet. Prioritise simplicity, reliability and immediate feedback.

Use English and euros throughout. Format calculated financial figures consistently to two decimal places.

1. Default budget

Prepopulate these editable monthly amounts:

Category	Amount
Net household income	€3,200
Rent or home loan	€950
Utilities: electricity, water and internet	€180
Groceries / household shopping	€600
School and children	€220
Transport / fuel	€300
Subscriptions / entertainment	€85
Monthly savings target	€400

The initial results must be:

- Living expenses excluding savings: **€2,335.00**
- Money left before savings: **€865.00**
- Savings target: **€400.00**
- Total allocations including savings: **€2,735.00**
- Cash remaining: **€465.00**

These are illustrative demonstration values, not official Maltese household averages.

2. Live calculations

Recalculate immediately whenever an editable amount changes. No Calculate button is required.

Use:

- Living expenses = all enabled monthly expenses and monthly provisions, excluding savings.
- Money left before savings = net income – living expenses.
- Total allocations = living expenses + savings target.
- Cash remaining = net income – living expenses – savings target.
- Expense share of income = living expenses ÷ net income × 100.
- Savings share of income = savings target ÷ net income × 100.
- Individual allocation share = individual monthly allocation ÷ net income × 100.

Define cash remaining as unallocated money after planned expenses and savings. Distinguish it from the economic definition of disposable income after tax.

Allow zero values. Reject negative income, expense and savings values. Blank amount fields count as zero. Invalid input must retain the last valid budget without breaking the application.

When income is zero, show an understandable unavailable percentage instead of Infinity or NaN.

Income entered is already net. Never deduct income tax again.

3. Financial dashboard

At the top, show four prominent figures:

1. Monthly net income
2. Monthly expenses
3. Savings target
4. Cash remaining

Make cash remaining the largest and most prominent figure.

Use:

- Green when cash remaining is at least 10% of net income.
- Amber when positive cash remaining is below 10% of net income.
- Red when cash remaining is negative.
- A clearly labelled fully allocated state at zero.

For a negative budget, explain the amount by which allocations exceed income. Also explain any savings-target funding shortfall. If living expenses alone exceed income, state that clearly.

4. Prominent “Try a what-if” section

Place this section **directly below the dashboard and above the expense editor**, spanning the available width.

Give it a light green background, a clear green border, generous spacing and the heading **“Try a what-if”**.

Supporting text:

“Choose any expense and see how a change affects your cash remaining.”

Expense dropdown

Provide a dropdown containing:

- Every standard expense category.
- Every enabled Additional Malta Household Cost.
- Every user-created custom expense.

Exclude income and savings from this expense selector.

Update the list immediately when users add, rename, enable, disable or remove expenses.

Clearly identify annual expenses.

Signed adjustment slider

Use a real horizontal slider:

- Minimum: **-€500**
- Centre: **€0**
- Maximum: **+€500**
- Step: **€10**
- Initial value: **€0**

Moving left deducts from the selected expense. Moving right adds to it.

Show labelled scale points at -€500, -€250, €0, +€250 and +€500. Display the selected signed euro adjustment above the slider.

The expense, totals, chart and remaining cash must update **in real time while the slider moves**. Do not require an Apply button.

Exact signed amount

Beside the slider, provide a numeric field labelled:

“Exact adjustment (+ or -)”

Allow exact signed amounts such as:

- -30
- +125.50
- 0

The field must update the budget immediately as valid values are entered.

Exact amounts may exceed the slider's ±€500 range.

Keep the slider and exact field synchronised where the amount is representable on the slider. For amounts outside its range or between its €10 steps, preserve the exact typed amount and calculate from that amount; do not silently round the actual adjustment.

Invalid or temporarily incomplete input must not corrupt the budget.

Baseline and adjustment behaviour

The baseline is the selected expense's value when it is selected or when a new adjustment session begins.

Calculate:

Adjusted expense = baseline expense + signed adjustment

Do not cumulatively add every slider movement.

Example with groceries starting at €600:

- Slider +€100 → groceries €700.
- Move to +€200 → groceries €800, not €900.
- Move to €0 → groceries €600.
- Move to -€100 → groceries €500.

Do not allow an expense to fall below zero. If a requested deduction exceeds the baseline expense, clamp the actual expense to zero and clearly show the actual change.

When selecting another expense, retain previous budget changes and centre the adjustment controls at zero for the newly selected expense.

For an annual expense, apply the adjustment to its annual amount and divide the resulting annual total by 12 for the budget. State this clearly.

Percentage change and cash-risk guidance

Show a prominent signed percentage change for the selected expense:

Percentage change = (adjusted expense – baseline expense) ÷ baseline expense × 100

For groceries starting at €600:

- +€100 → **+16.7%**
- +€200 → **+33.3%**
- -€100 → **-16.7%**

Use the actual clamped change when deductions reach zero.

When the starting expense is zero, show 0% if unchanged. For an increase from zero, explain that a percentage change cannot be calculated.

Display a clearly coloured impact indicator containing:

- Signed percentage change.

- Cash-cushion status.
- Current cash remaining.

Choose the indicator's colour from the resulting cash remaining:

- **Green:** at least 10% of net income remains.
- **Amber:** at least 5% but less than 10% remains.
- **Red:** less than 5% remains, zero remains, or the budget is negative.

Include text labels such as “Comfortable cushion”, “Low cushion” and “Critical cushion” so meaning does not depend on colour alone.

Show a concise explanation of these thresholds.

Also display:

- Starting expense amount.
- Adjusted expense amount.
- Actual signed euro change.
- Monthly or annual frequency.
- Monthly equivalent for annual costs.

Undo and Reset

Keep these buttons:

- **Undo Last Change**
- **Reset to Original Budget**

Undo must support manual edits and what-if changes. Treat a continuous slider drag or editing interaction as a coherent change rather than creating an undo entry for every tiny slider movement.

Reset must restore every original default, remove custom expenses, disable optional costs and return cash remaining to **€465.00**. Reset the what-if controls appropriately.

Show concise feedback after changes and undo/reset actions.

5. Expense editor

Below the what-if section, group editable fields into:

Income

- Net monthly household income

Housing and utilities

- Rent or home loan
- Utilities: electricity, water and internet

Everyday expenses

- Groceries / household shopping

- Transport / fuel
- School and children
- Subscriptions / entertainment

Savings

- Monthly savings target

Use clearly labelled numeric fields with euro symbols. Update them visibly when what-if controls change an expense.

Provide a **“Your additional expenses”** section where users can:

- Add a custom expense.
- Edit its name and amount.
- Choose monthly or annual frequency.
- Remove it.

Use safe text rendering for custom labels.

6. Additional Malta Household Costs

Provide a collapsible section titled **“Additional Malta Household Costs”**.

Include optional categories:

- Vehicle insurance and annual licence
- Car maintenance and repairs
- Medical, dental and pharmacy spending
- Mobile phone costs
- Clothing and personal care
- School uniforms, books and activities
- Childcare or private lessons
- Home and property maintenance
- Pets
- Gifts, birthdays and holidays
- Other household expenses

Users must explicitly enable an optional category. Enabling a category with zero entered must not change the demonstration budget.

For each enabled category, provide:

- An amount.
- Monthly or annual frequency.
- Its calculated monthly provision.

Annual provisions equal annual cost ÷ 12. Avoid double-counting.

7. “Where your money goes” breakdown

Show a compact horizontal-bar breakdown beside the expense editor on desktop and stacked beneath it on mobile.

Include:

- Housing
- Utilities
- Groceries
- Children and school
- Transport
- Subscriptions
- Each enabled optional expense individually
- Each custom expense individually
- Savings target
- Remaining cash

For **every item**, show:

1. Its monthly euro amount.
2. Its percentage of total monthly net income.
3. A clearly distinguishable horizontal bar.

Use monthly equivalents for annual expenses.

Example: groceries €600 out of €3,200 net income = **18.8% of net income**.

Update amounts, percentages and bars immediately during manual edits and slider movement.

Keep all financial results readable without relying on bars or colour.

If remaining cash is negative, show its negative amount and negative percentage explicitly. Avoid drawing a misleading positive remaining-cash bar.

Below the breakdown, show:

- Left before savings.
- Total allocations.
- Expenses as a percentage of net income.
- Savings as a percentage of net income.

8. Understanding Your Income in Malta

Provide a secondary collapsible information section with this exact title.

Briefly explain:

- The main calculator uses net take-home income after applicable payroll deductions.

- Malta has progressive personal income taxation.
- Tax rates depend on tax status and family circumstances.
- Categories include single, married and parent rates, with qualifying child-related variations.
- Employees commonly pay income tax through the Final Settlement System.
- Social Security Contributions are separate from income tax.
- Gross-to-net estimates require the applicable tax status and contribution rules.
- Married households do not all use the same computation.

Link to official sources:

<https://mtca.gov.mt/personal-tax/tax-rates/tax-ratesindividuals>

<https://mtca.gov.mt/personal-tax/individual/taxationforindividuals>

Keep this informational. A gross-to-net estimator is not required.

9. Malta Budget Insights

Provide a secondary collapsible section titled “**Malta Budget Insights**”.

Verify official sources when browsing is available:

https://nso.gov.mt/themes_sources___met/household-budgetary-survey/

<https://nso.gov.mt/annual-non-financial-accounts-of-the-household-sector-2024/>

The verified 2024 release reported a household savings rate of **19.4% of gross disposable income**, published on **5 December 2025**.

Identify the reference year and verification date. Check for newer releases before claiming this is the latest.

Explain that aggregate national savings measures are not directly equivalent to the proportion of an individual household’s monthly take-home salary saved and are not a prescribed household target.

Do not invent precise average Maltese spending figures.

Keep research secondary to the calculator.

10. Visual design and accessibility

Use:

- A light background.
- White panels.
- Dark, readable text.
- Restrained green accents.

- Rounded inputs and buttons.
- Clear spacing.
- Clean system typography.
- A prominent remaining-cash figure.
- Minimal animation.

Ensure:

- Comfortable desktop and smartphone use.
- No horizontal scrolling at widths down to 320px.
- Large touch targets.
- Readable numeric fields.
- Keyboard-accessible controls.
- Keyboard-operable slider.
- Visible focus states.
- Accessible labels and live result announcements.
- Text explanations alongside status colours.

11. Local saving and offline version

Preserve entered budget values locally on the device where available. Handle unavailable storage gracefully.

If supported by the chat environment, preserve interactive state there too.

Generate a standalone HTML version containing all HTML, CSS and JavaScript, with:

- No external JavaScript libraries.
- No remote fonts.
- No network requests required for calculator functionality.
- Full offline operation.
- Source links that can be opened when internet access is available.

Generate and test the file before claiming an offline version exists.

12. Required verification

Test actual application controls, not just formulas.

Verify:

1. Initial living expenses €2,335, savings €400 and remaining cash **€465**.
2. Groceries +€100 → groceries €700 and cash **€365**.
3. From defaults, subscriptions –€30 → subscriptions €55 and cash **€495**.
4. Manual groceries €750 → cash **€315** immediately.

5. Groceries +€100 and subscriptions –€30 → cash **€395**.
6. Reset → original values and cash **€465**.
7. Overspending produces negative cash and a clear warning.
8. Subscriptions €20 with a €30 deduction → €0, never negative.
9. Slider movement changes totals during movement, without confirmation.
10. Consecutive slider positions use the baseline and do not accumulate.
11. Returning the slider to zero restores that session's baseline expense.
12. Groceries +€100 shows **+16.7%** change.
13. Both increases and decreases show correct signed percentages.
14. Indicator transitions through green, amber and red at the stated cash thresholds.
15. Exact signed amounts, including decimals, calculate correctly.
16. Zero baseline expenses and zero income do not produce NaN or Infinity.
17. Annual expenses use monthly provisions correctly.
18. Custom and enabled optional expenses appear in the selector and breakdown.
19. Every breakdown item shows its correct percentage of net income.
20. Undo, Reset, local saving and offline editing work.
21. Mobile layouts fit at 320px, 390px, 768px and desktop widths.
22. No expense is double-counted, savings remain separate, and net income is not taxed again.

13. Deliverable

Build the calculator now.

Present the functioning interactive calculator first, with the default **€465.00 remaining**.

Then briefly explain:

- How to edit values.
- How to use the live slider and exact signed adjustment.
- How to interpret percentage changes and cash-cushion colours.
- How to undo or reset.
- How to open the tested standalone offline version.

Do not substitute a static representation for the working application.