

Cooklang: Hacking the Recipe Format

The way we write recipes hasn't fundamentally changed in centuries. What if we could hack it?



• Alexey Dubovskoy, FOSDEM 2025, CC BY 4 •

Why Cooking Shouldn't Start with a Scrolling Marathon

The image shows a screenshot of the Natasha's Kitchen website. At the top left is the logo for "NATASHA'S KITCHEN". The navigation menu includes "Home", "Recipes", "Cookbook", "Videos", "Shop", "About", "Subscribe", and a search bar. The main content area features a recipe for "Beef Plov" with a 5-star rating and 624 comments. A large image of the dish is shown. A white pop-up window is overlaid on the page, titled "Cozy Soup Recipes" and "TO WARM YOU UP THIS WINTER (+ salads & breads!)". It contains an email input field and a red button that says "Send Me The Recipes!". A "Wait! Don't Go" button is at the top of the pop-up. In the background, there are social media icons for Instagram, Facebook, Pinterest, and YouTube, and a "Reader Favorites" section.

Authentic “innovation”

Dishwasher salmon

🌐 12 languages ▾

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From Wikipedia, the free encyclopedia



Dishwasher salmon is a [fish](#) dish made by a cooking technique where [salmon](#) is wrapped in aluminum foil and placed in a [dishwasher](#) for a full cycle. Dishwasher companies and [Consumer Reports](#) have identified potential issues, including inconsistent temperatures and the risk of [food poisoning](#).

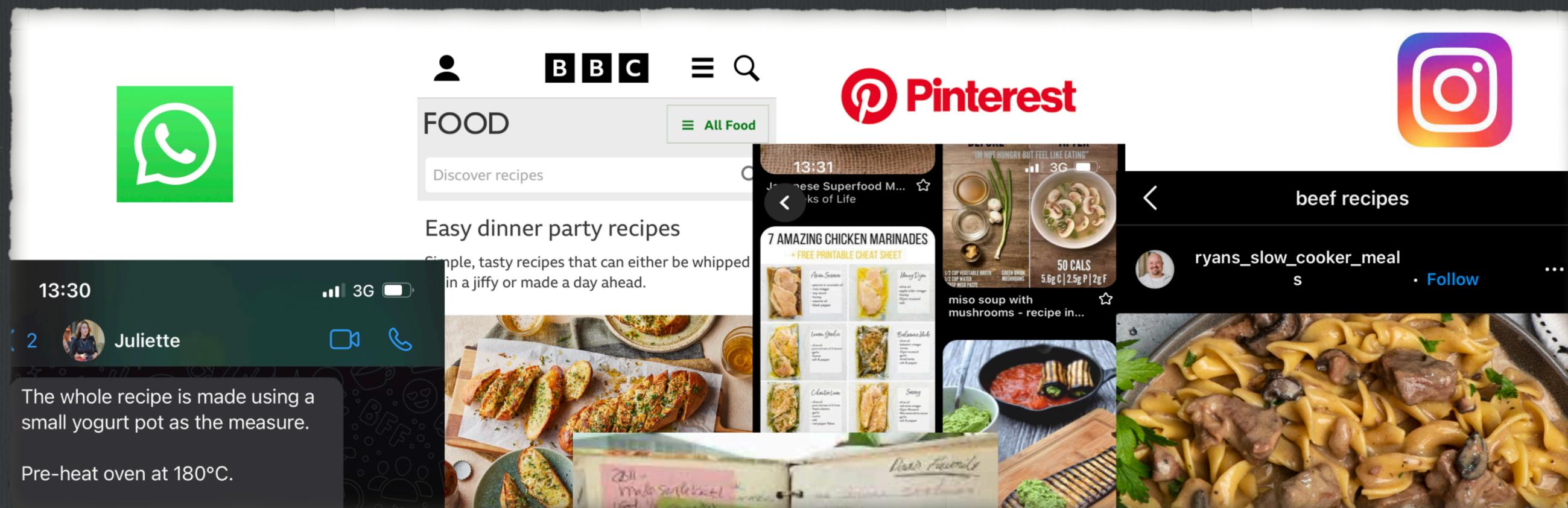
Safety concerns

Dishwasher companies and [Consumer Reports](#) have recommended against cooking fish with a dishwasher because dishwashers are not designed or tested for cooking, dishwashers do not have temperatures as consistent as stoves, and it is questionable whether



Salmon fillets wrapped in aluminum foil and placed on a dishwasher rack

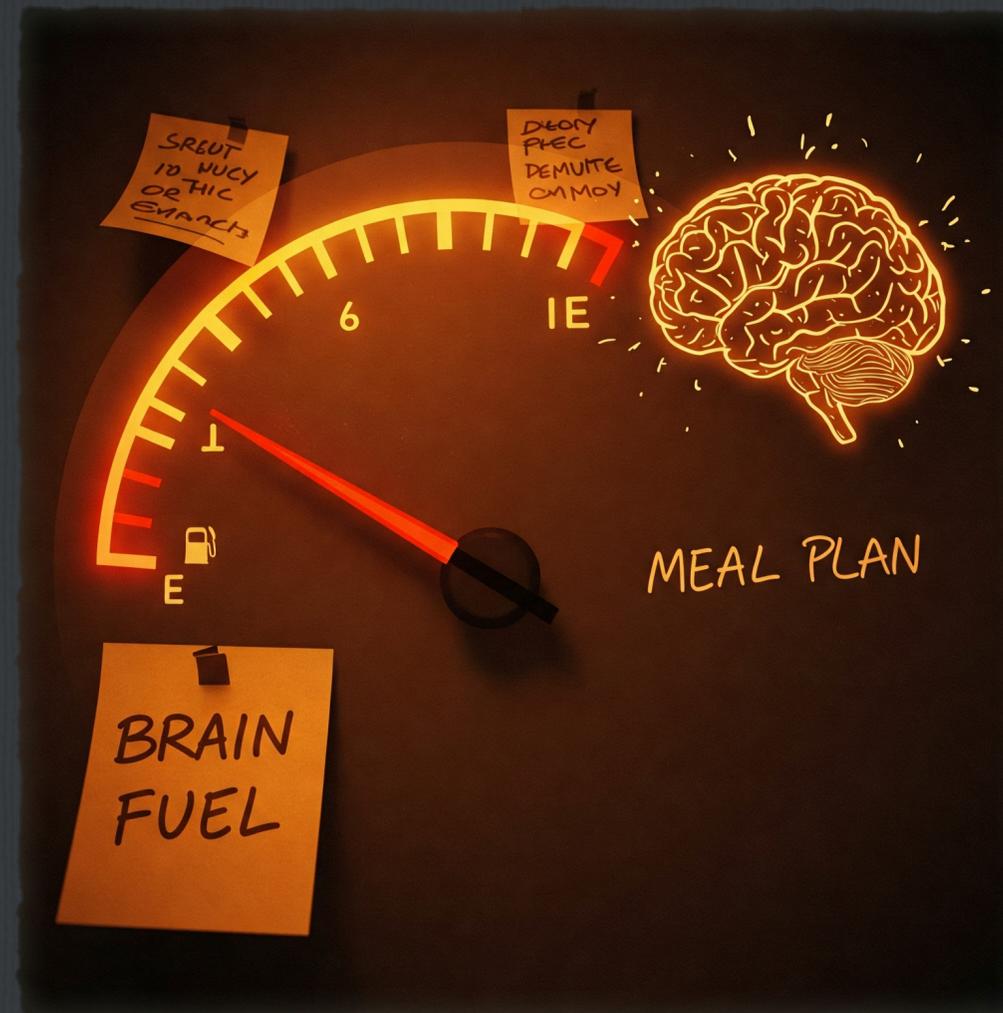
The Recipe Black Hole: Why Sharing is Still a Mess



The Personalisation Problem: Do I Really Own My Recipes?

- I don't own my recipes.
- Want to remove garlic? Too bad—no easy way to do it.
- Adjust proportions to suit my taste? That's a battle.
- Even with apps like Paprika, adding a recipe is a pain:
 - Copy-paste chaos.
 - Mobile UI that feels like a maze.
 - What happens if the app shuts down?

The Recipe Paradox: Why Meal Planning Feels Harder Than Cooking???



The Great Wall of Culinary Chaos

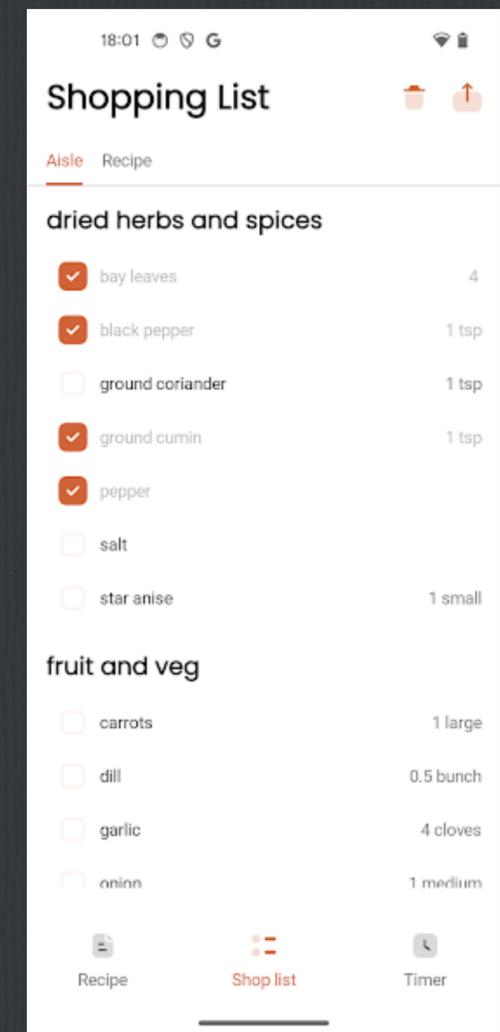
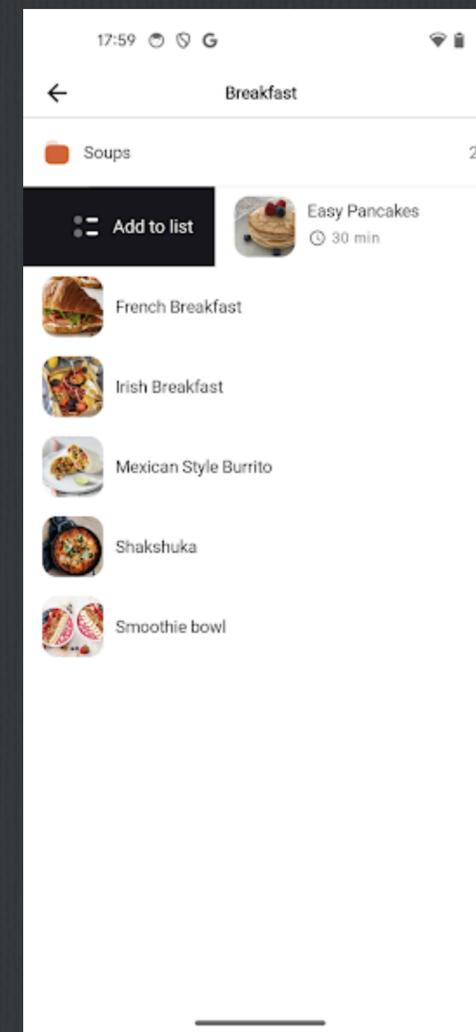
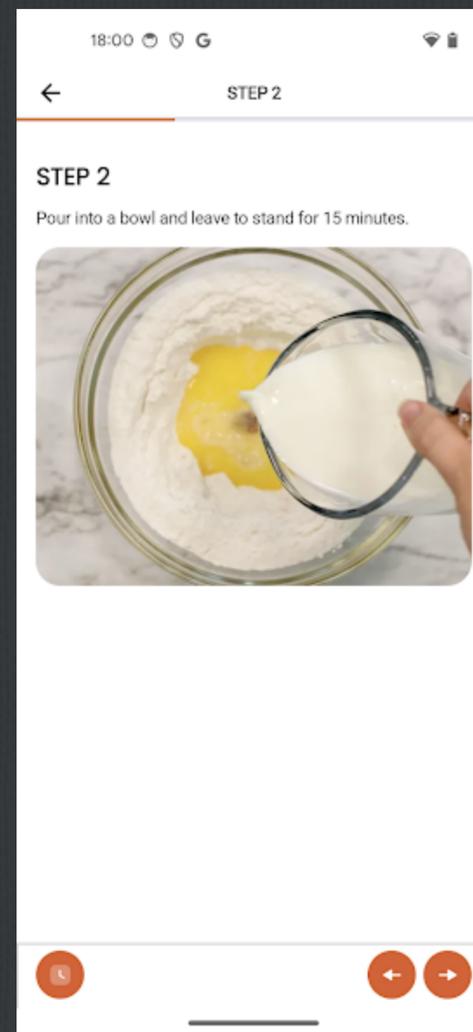
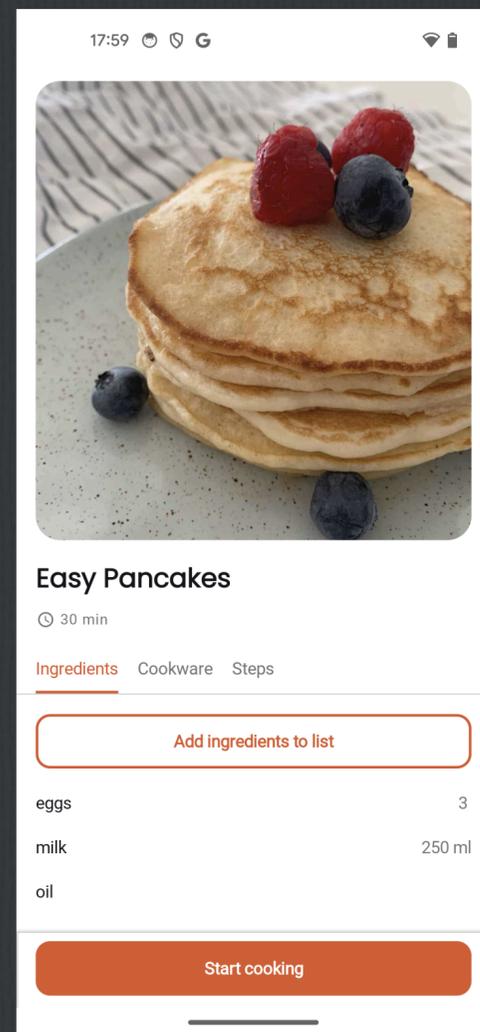
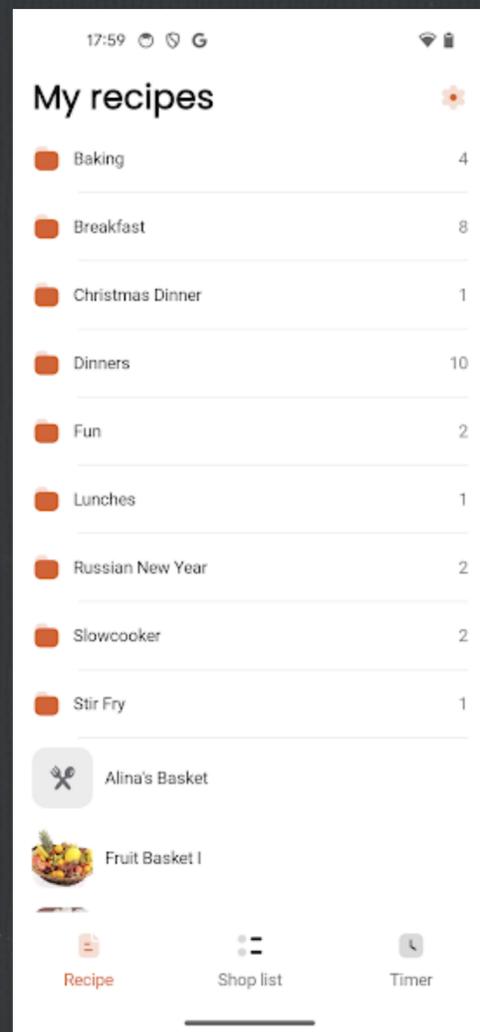
- Problem with finding good recipes
- Problem with storing recipes
- Problem with sharing
- Problem with personalisation
- Problem with brain fuel

The Surprisingly Modern Power of Plain Text



- Recipes as plain text files: store, share and personalise
- Make computers work and save our brain fuel
- Small libraries what allow to reuse other's work

...turn files into beautiful recipes



Cooklang: More Than a Format—A Growing Ecosystem



Search results for `cooklang` on GitHub. The page shows 146 results. The top results are:

- cooklang/cooklang-obsidian**: Edit and display CookLang recipes in Obsidian. Includes tags: `obsidian`, `obsidian-plugin`, `obsidian-md`, `cooklang`. Language: TypeScript. 226 stars. Updated on 15 Nov 2024.
- cooklang/spec**: Home for Cooklang specification and general discussions about the ecosystem. Includes tag: `cooklang`. 605 stars. Updated 15 days ago.
- Zheoni/cooklang-chef**: A CLI to manage cooklang recipes. Includes tags: `rust`, `cli`, `parser`, `cooking-recipes`, `cooklang`. Language: Rust. 74 stars. Updated 4 days ago.
- cooklang/cooklang-import**: A command line tool to import recipes into Cooklang format. Includes tags: `hacktoberfest`, `cooklang`.

Filter by:

- Code: 4.5k
- Repositories: 146
- Issues: 451
- Pull requests: 2k
- Discussions: 51
- Users: 2
- More

Languages:

- TypeScript
- JavaScript
- Python
- Go
- Ruby
- Rust
- Dockerfile
- C
- Shell
- C#

CLI Demo

```
Recipes — dubadub@MacBookPro — ~/recipes — -zsh — 78x19
[→ recipes cook
Usage: cook <COMMAND>

Commands:
  recipe      Manage recipe files
  server      Run a webserver to serve your recipes on the web
  shopping-list  Create a shopping list [aliases: sl]
  seed        Populate directory with seed recipes
  help        Print this message or the help of the given subcommand(s)

Options:
  -h, --help    Print help
  -V, --version  Print version

Docs: https://cooklang.org/cli/help/
[→ recipes █
```

[→ recipes cook recipe read Breakfast/Easy\ Pancakes.cook]

Ingredients:

eggs 3
plain flour 125 g
milk 250 ml
sea salt 1 pinch
oil

Cookware:

frying pan

Steps:

1. Crack the eggs into a blender, then add the plain flour, milk and sea salt, and blitz until smooth.
[eggs: 3, plain flour: 125 g, milk: 250 ml, sea salt: 1 pinch]
2. Pour into a bowl and leave to stand for 15 minutes.
[-]
3. Melt the butter (or a drizzle of oil if you want to be a bit healthier) in a large non-stick frying pan on a medium heat, then tilt the pan so the butter coats the surface.
[oil]
4. Pour in 1 ladle of batter and tilt again, so that the batter spreads all over the base, then cook for 1 to 2 minutes, or until it starts to come away from the sides.
[-]
5. Once golden underneath, flip the pancake over and cook for 1 further minute, or until cooked through.
[-]
6. Serve straightaway with your favourite topping.
[-]

→ recipes █

Recipes — dubadub@MacBookPro — ~/recipes — -zsh — 84x36

```
[→ recipes cook recipe read -f json --pretty Breakfast/Easy\ Pancakes.cook ]
```

```
{
  "metadata": {
    "map": {}
  },
  "sections": [
    {
      "name": null,
      "content": [
        {
          "type": "step",
          "value": {
            "items": [
              {
                "type": "text",
                "value": "Crack the "
              },
              {
                "type": "ingredient",
                "index": 0
              },
              {
                "type": "text",
                "value": " into a blender, then add the "
              },
              {
                "type": "ingredient",
                "index": 1
              },
              {
                "type": "text",
                "value": ", "
              },
              {
                "type": "ingredient",
                "index": 2
              }
            ]
          }
        }
      ]
    }
  ]
}
```



```
[→ recipes cook shopping-list ./Breakfast/Easy\ Pancakes.cook ./Breakfast/Irish\ Breakf  
ast.cok ./Dinners/Sicilian-style\ Scottadito\ Lamb\ Chops.cook
```

```
TRACE checking auto aisle file: ./config/aisle.conf
```

```
[dried herbs and spices]
```

```
black pepper
```

```
fennel seeds          1 tsp
```

```
ground cinnamon      1 pinch
```

```
salt                  1 pinch
```

```
sea salt              1 pinch
```

```
[fruit and veg]
```

```
fresh oregano         2 springs
```

```
garlic                2 cloves
```

```
lemon
```

```
mushrooms            100 g
```

```
[meat and seafood]
```

```
bacon                 5 strips
```

```
lamb chops           8 large
```

```
[milk and dairy]
```

```
butter                30 g
```

```
eggs                  2 large, 3
```

```
milk                  250 ml
```

```
[oils and dressings]
```

```
extra virgin olive oil 1 splash
```

```
oil
```

```
[tinned goods and baking]
```

```
baked beans          1 can
```

```
plain flour          125 g
```

```
→ recipes █
```

localhost

 Cook [Recipes](#) [Shopping list](#) [Preferences](#)

[Home](#) / [Breakfast](#) / Easy Pancakes [Add to shopping list](#)

[Ingredients](#) [Cookware](#) [Steps](#)

eggs	3
milk	250 ml
oil	
plain flour	125 g
sea salt	1 pinch

cook.md recipe converter

The screenshot shows a web browser window with the URL <https://www.bbcgoodfood.com/recipes/easy-pancakes>. The page features a blue banner for Sensient with the text "Champions aren't made in comfort zones." and a "Learn More" button. Below the banner is a navigation bar with links for "Join our Subscriber Club", "Newsletter sign up", "Good Food Shows", "Download our app", "Planet-friendlier", "Sign in", and "Register". The main content area displays the "goodFOOD" logo and a navigation menu with "Recipes", "Health", "What to buy", "Healthy Diet Plan", "Subscribe", and "Market Street". A search bar is also present. The breadcrumb trail shows "Home > Recipes > Easy pancakes". The recipe title "Easy pancakes" is prominently displayed, along with the author "Cassie Best", a 4.5-star rating from 695 users, and 419 comments. A video player is visible at the bottom left of the recipe card.

Cooking with Control: How Cooklang Empowers Dietary Management

The screenshot shows a web browser window with the URL mgw.dumatics.com. The page title is "The Diary Of A Diabetic". The main content area displays the recipe "Low Carb Edamame Falafel" under the category "Snacks". A red warning box states: "Danger: This recipe is based on wheat gluten so it is not suitable for those with Gluten Intolerance. I am sure it's obvious but still." Below this, the "Key Stats" section features a circular badge indicating "1.99 Net Carbs per Serving". A photograph of several golden-brown falafel balls is shown on a white plate. To the right, a table of contents lists sections: Key Stats, Ingredients, Cookware, Steps, Process, Nutrition Info, Nutrition Labels, Net Carbs in each Ingredient, Cooklang, and Tag cloud. The tag cloud includes terms like Bread, Indian, Breakfast, Lunch, Dinner, Continental, Snacks, Dessert, Dips, Salad, Italian, Greek, Mexican, Drinks, Curry, Paneer, Salads, and Japanese. At the bottom, it specifies "Cooking Time: 60 minutes" and "Serves: 16".

https://mgw.dumatics.com/a_diabetics_journal/Recipes/Snacks and Sides/recipe_008_low_carb_edamame_falafels.html#cooklang

Get involved

- Visit our web-site <https://cooklang.org>
- Visit our GitHub <https://github.com/Cooklang>
- Join our Discord (link on web-site)
- Learn and experiment with playground, parsers, CLI, Obsidian plugin, ML...
- Contribute! Docs, Rust libraries, JS, ML, ... all waits your contribution
- Contact me alexey@cooklang.org

Thanks! And happy cooking!