DIAMOND CO.

Baker’s "No-Waste" Recipe Scaler

No-Waste Recipe Scaler: Accurately Scale Baking Recipes by Weight or Volume, Reduce Waste ≤30% – Free, No Account Required

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1. Core Features (MVP)
Recipe Scaling Tool
How It Works:
- **Scaling Algorithm:**
  - **Weight-based ingredients** (e.g., flour, sugar, chocolate): Scaled linearly by weight (e.g., 500g → 1kg).
  - **Volume-based ingredients** (e.g., milk, butter, honey): Converted to weight using USDA FoodKeeper factors (e.g., 1 cup flour = 120g).
  - **Leavening agents:**
    - **Yeast:** Scaled by fermentation time (reduce by 5% per hour beyond 2 hours; override with custom %).
    - **Baking powder:** Adjusted per USDA altitude charts (add 1/8 tsp per 500g flour if altitude >1000m).
    - **Eggs:** Whisk 2 large eggs + 1 tbsp water per 500g flour for batches >1.5×.
  - **Unsupported ingredients** (e.g., chocolate chips, buttercream, gluten-free blends): Display "Ingredient not recognized" with suggested substitutes (e.g., 100g chocolate chips → 100g chopped nuts) or manual-entry fallback.

Ingredient Support Matrix:
Category	Scaling Method	Notes
Flours	Weight	All-purpose, whole wheat, oat flour, gluten-free blends.
Sugars	Weight	Granulated, powdered, brown sugar.
Liquids	Volume → Weight	Milk, water, honey (USDA factors applied).
Fats	Weight	Butter, oil, shortening.
Leaveners	Weight + Adjust	Yeast: 5% less per hour beyond 2h (override allowed). Baking powder: +1/8 tsp per 500g flour.
Eggs	Volume + Adjust	2 eggs + 1 tbsp water per 500g flour for batches >1.5×.
Chocolate Chips	Weight	Substitute with nuts (1:1 ratio).
Buttercream	Volume	Scale by volume (e.g., 1 cup → 2 cups).
Gluten-Free Blends	Manual	Requires recipe-specific adjustments.

Example Workflows:
Weight-Based Recipe (Sourdough Bread)

- **Original:** 500g flour, 350g water, 10g salt.
- **Scale to 1kg batch:**
  - **Tool Output:** 1kg flour, 700g water, 20g salt.
  - **Waste-Reduction Note:** "Save leftover dough for focaccia (freeze in 100g portions, for 3 months)."

Volume-Based Recipe (Cookie Dough)
- **Original:** 2 cups flour, 1 cup butter, ½ tsp salt.
- **Scale to 48 cookies (original makes 24):**
  - **Tool Output:** 4 cups flour, 2 cups butter, 1 tsp salt.
  - **Waste-Reduction Note:** "Roll dough to ¼-inch thickness for even baking. Leftover batter → 6–8 mini pancakes."

Checklist for Accuracy:
- [ ] Handles fractions (e.g., ½ cup → 2½ cup).
- [ ] Converts between units (e.g., 250g → 8.8 oz).
- [ ] Preserves instructions (no scaling for steps like "preheat oven").

Waste-Reduction Notes
- **Content:**
  - **Substitution tables:** "1 cup all-purpose flour = ¾ cup whole-wheat flour + ¼ cup oat flour."
  - **Storage tips:** "Freeze dough in 1-cup portions for up to 3 months (USDA FoodKeeper)."
  - **Repurposing ideas:** "Leftover pancake batter → 6–8 mini pancakes (yield: 8 servings)."
- **Sources:** USDA FoodKeeper (storage), tested ratios (substitutions).

Feedback Submission
- **Rating:** 1–5 stars (required).
- **Comments:** Optional text field (e.g., "Works great for cakes but not pies").
- **Data Collected:** Timestamp, browser, device (for analytics). *No ingredient entries stored.*

Printable Guide (Optional)
- Download scaled recipe as PDF with:
  - Clean formatting (no ads).
  - QR code linking back to the tool.
  - Waste-reduction notes in the footer.

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2. Technical Stack
Frontend:
- **React.js** (for dynamic scaling UI).
- **Tailwind CSS** (responsive design, mobile-friendly).
- **Example UI Flow:**
  1. Landing page: "Paste your recipe → Enter batch size → Download scaled recipe".
  2. Feedback modal: "How was your experience? (★★★★☆) + Comments".

Backend:
- **Node.js** (API for scaling logic).
- **Firebase** (store feedback, track usage).

Hosting:
- **Vercel** (frontend, HTTPS, fast load times).
- **Firebase Hosting** (backend, scalable).

Privacy & Offline Functionality:
- **Privacy:** Ingredient entries are processed locally. *No personal data stored. Complies with GDPR/CCPA.*
- **Offline:** Works offline after the initial load (no server dependency).

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3. Launch Plan
Distribution Channels
Channel	Action Items
Baking Communities	Post in: - Reddit (r/baking, r/food) - Facebook Groups (e.g., "Bakers of the World") - Pinterest (pin tool with image: "Never Waste Ingredients").
Social Media	TikTok/Instagram: - 30-sec demo video (e.g., "How to scale a pie crust recipe"). - Hashtags: #BakingHacks #NoWasteCooking.
Newsletter	Email subject: *"Free Recipe Scaler – No More Ingredient Waste!"* Include screenshot of tool.

Promotional Copy
Headline: *"No-Waste Recipe Scaler: Accurably Scale Baking Recipes by Weight or Volume, Reduce Waste ≤30% – Free, No Account Required"*
Subhead: *"Double, halve, or customize recipes without guesswork. Free and easy to use."*
CTA Buttons:
1. *"Try the Tool Now"* (directs to tool).
2. *"Share Feedback"* (opens feedback form).

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4. Analytics & Monitoring
Key Metrics:
- **Conversions:** % of visitors who scale a recipe.
- **Feedback Rate:** % of users submitting ratings/comments.
- **Error Rate:** % of scaling attempts failing (e.g., unsupported units).

Tools:
- **Google Analytics:** Track traffic sources, bounce rate.

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- **Firebase Analytics:** Monitor feedback submissions.

**Weekly Report Template:**
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Week X Report

- **Visitors:** [X] (vs. [Y] last week).
- **Scalings Completed:** [X] (e.g., 120).
- **Feedback Submitted:** [X] (e.g., 20 ratings, 5 comments).
- **Top Feedback:** "Loved the PDF download!" (3 stars).

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## **5. Maintenance Plan**
**Monthly:**
- Review feedback → fix bugs (e.g., "Grams aren't converting correctly").
- Add new units (e.g., "pinch of salt" → "¼ tsp").

**Quarterly:**
- A/B test UI changes (e.g., button colors, feedback prompts).
- Update database with common baking terms (e.g., "1 stick butter" → "113g").

**Continuous:**
- Feature requests: Add "save recipe" for logged-in users.

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## **6. Kill/Boost/Clone Rules**
- **Kill Rule:** If **<50% of visitors scale a recipe** in 24 hours, terminate.
- **Boost Rule:** If **10+ feedback submissions** in 24 hours, prioritize fixes.
- **Clone Rule:** If **$10 revenue** (e.g., ads, donations), consider premium features.

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## **7. 24-Hour Launch Checklist**
| Time | Task                                                                 |
|---|---|
| 0-6h | Deploy MVP to test domain (`test.no-waste-scaler.bakersventure.com`). |
| 6-12h | Test scaling logic (e.g., ½ cup → 2½ cup). Fix bugs.                |
| 12-24h | Full launch to `no-waste-scaler.bakersventure.com`. Post in Reddit. |

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## **8. Additional Page Elements**
### **FAQ**
**Q: How accurate is the scaling?
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