How Switzerland Eats

Degree programme: BSc in Computer Science
Specialisation: IT Security
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This project delivers a mobile-friendly questionnaire that lets Swiss residents assess their eating habits in under ten minutes. It collects anonymised data, returns an immediate nutrition score, and is built with strict data-protection safeguards. The prototype proves the concept and lays the groundwork for a future nationwide public-health tool.

Context

SwissFoodQuiz is a web application that lets anyone find out how healthy their diet really is in under ten minutes. Drawing on the success of Australia's Healthy Eating Quiz, the project adapts the concept to Swiss food culture and official dietary guidelines. Instead of a long and boring, form-like survey, users navigate a short, visually engaging questionnaire on mobile or desktop. Every response is stored anonymously and aggregated, giving nutrition researchers an accurate, privacy-preserving picture of national eating habits.

Goals

- Design a friction-free, mobile-first survey that delivers an instant, easy-to-interpret nutrition score.
- Implement a secure, production-ready stack (Vue.JS for the single-page front end, FastAPI for the REST back end, PostgreSQL for persistent storage).
- Validate the prototype with nutrition and software experts, and lay the groundwork for future modules such as personalised advice, recipe suggestions and gamified challenges.

Engagement challenge

Keeping users motivated all the way to the final screen required subtle gamification. Two lightweight mechanics proved most effective:

- Section progress bars that show at a glance how close the user is to finishing each block.
- A burst of confetti animation at the end of every section, paired with a mini badge, to reward progress and encourage users to continue.

These elements create a playful flow without lengthening the questionnaire or distracting from the core content.

Results

- Responsive interface: All screens were prototyped in Figma and implemented as a Vue.JS SPA that works seamlessly on phones, tablets and laptops.
- Swiss-tuned scoring: The Australian algorithm was simplified and recalibrated for Swiss portion sizes and food categories. Users receive both a global score and section-by-section feedbacks.
- Robust data model: A PostgreSQL schema tracks quizzes, sections, questions, choices and anonymised answers, while admin tables let authorised staff tweak coefficients or add new items without code changes.

Conclusion

The project demonstrates that a fast, friendly self-test can coexist with rigorous data collection and strict data-protection standards. The codebase is ready for the next milestones: large-scale user testing and richer analytics. With these additions, SwissFoodQuiz could evolve into a nationwide public-health service that nudges Swiss residents toward healthier, evidence-based eating habits, one quick quiz at a time.

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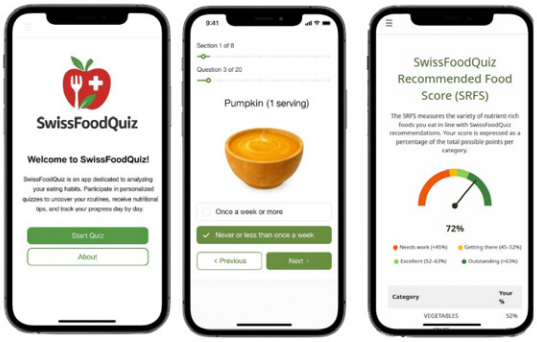
high-level architecture overview



sample UI