



SmartCart: Smart shopping, made simple.



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Introduction

Tired of wasting time comparing grocery prices, planning meals, or struggling to find the right recipes? Our app combines personalized recipe suggestions, real-time grocery pricing, and efficient route planning to save you time and money.

By integrating your shopping list with store data and intelligent recipe generation, we simplify meal prep while ensuring your groceries are always within budget.

Objectives

1. **Simplify Meal Planning:** Personalized recipe suggestion
2. **Enhance Grocery Shopping:** Provide real-time pricing data to help users make cost-saving choices
3. **Optimize Routes:** Suggest efficient routes to grocery stores, saving time and money

Problem

Students have enough time to cook, but not to plan meals.

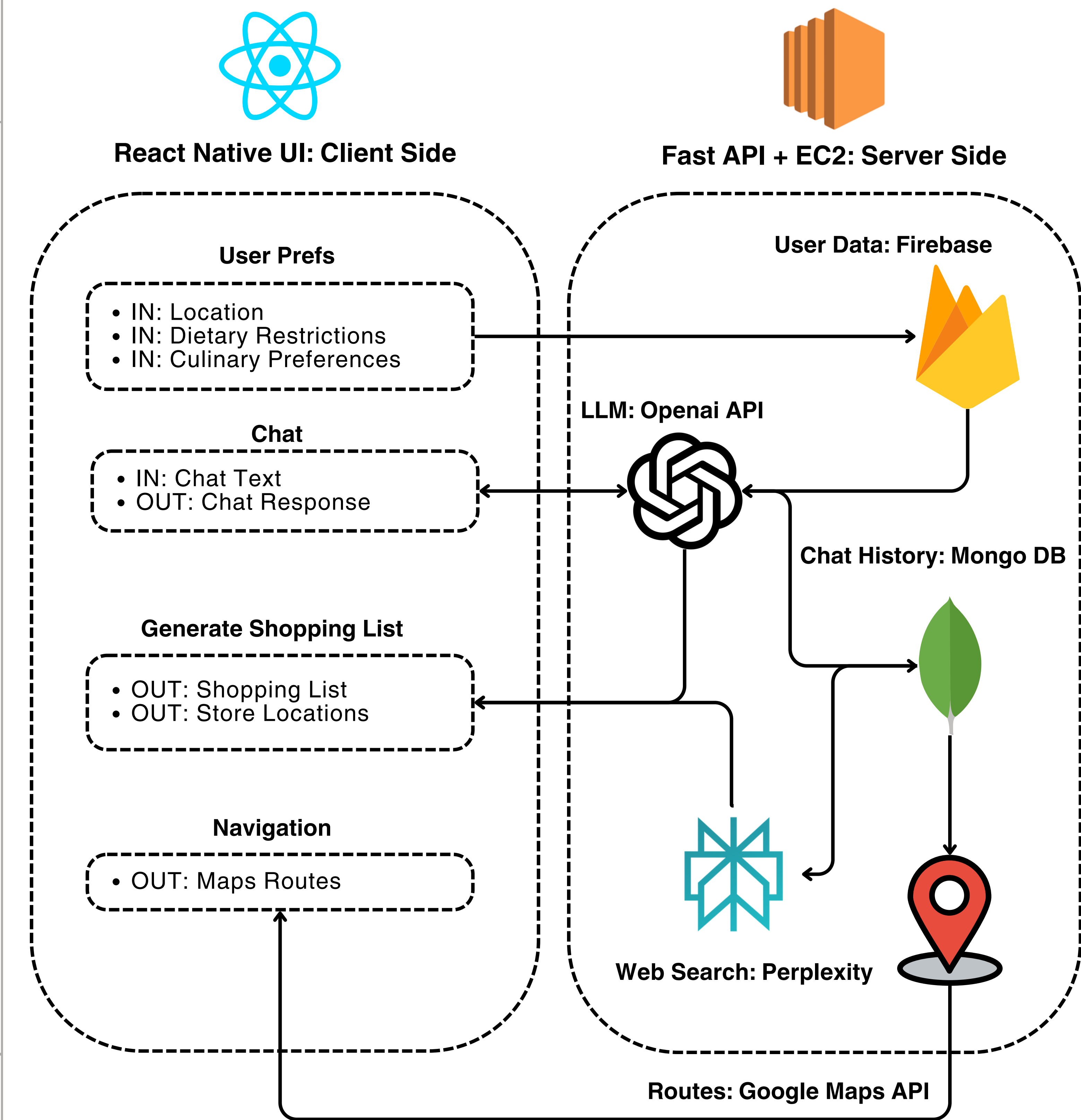
Methodology

1. **Recipe Generation:** Use LLMs to suggest personalized recipes.
2. **Database Integration:** Store data securely with MongoDB.
3. **Route Optimization:** Optimize travel routes using Google Maps API.
4. **Mobile App Development:** Build cross-platform app with React Native.
5. **User Testing:** Gather feedback for continuous improvement

Future Work

- Run benchmarks to test how well different LLMs follow dietary restrictions and culinary preferences.
- Run benchmarks testing different LLMs' pricing accuracy.
- Add automatic checkout with select stores.

Architecture



Results and Conclusion

Based on feedback from our users, SmartCart serves successfully helps students (1) simplify meal planning, (2) enhance grocery shopping, (3) optimize shopping routs. Based on our own tests our system performs well when estimating prices, recommending items that comply with user preferences, and finding stores with all items in the shopping list. In conclusion, our system successfully helps busy students with meal planning.

Collect User Prefs.

Chat Recommends Recipes

Generate Shopping List

Generate Store Recommendations

Checkout Experience

