YOLOgo – Creating Personalized Student Travel Plans with Generative AI

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Abstract

YOLOgo is an **AI-powered travel app** designed for university students, offering personalized, budget-friendly itineraries to optimize travel experiences. It balances budget, time, and activities to ensure an affordable yet enriching trip.
The app addresses a **human-centered problem**: the challenge students face in balancing time, budget, and experiences when planning trips. YOLOgo simplifies this by providing AI-driven solutions that meet students' needs while ensuring memorable, affordable travel.

01. Research Insights

Research shows that while **88.5%** of university students love traveling, planning remains a major hurdle—**76.1%** find filtering and comparing travel information the most time-consuming task. With **84%** willing to use an AI travel assistant, there's a clear demand for a solution that simplifies planning, forming the basis for our YOLOgo design.

03. Requirements discovery

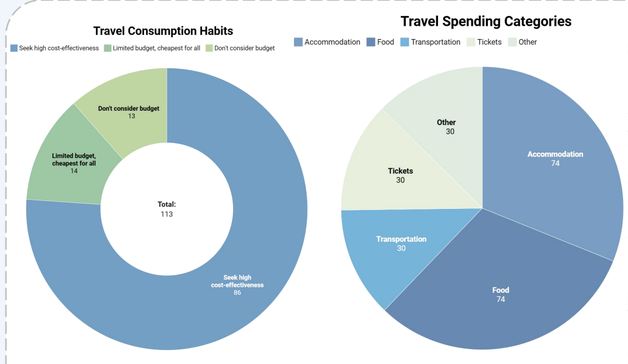

Fig.1 Travel spending habits

Fig.2 Travel expenses focus

Our survey revealed that while most college students prefer budget travel, they're willing to invest in key areas. (Figures 1).
Specifically, ***food and accommodation*** emerged as their top spending priorities(Figures).
Then we made the persona shown in Figure 3

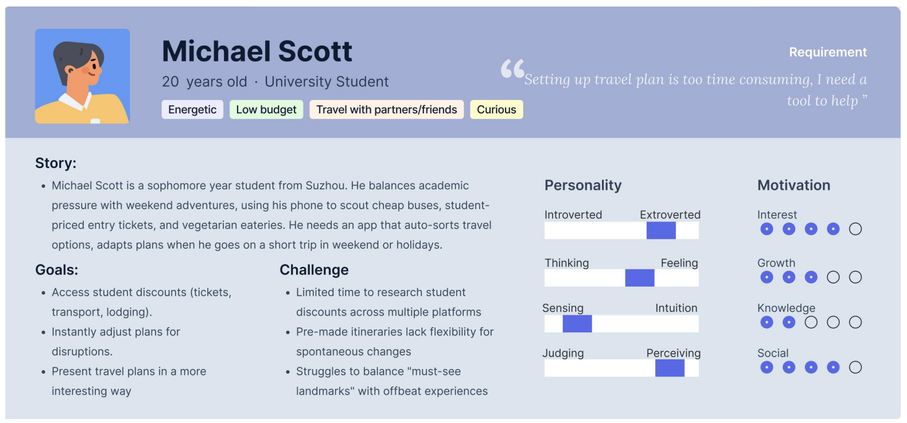

Fig.3 Persona

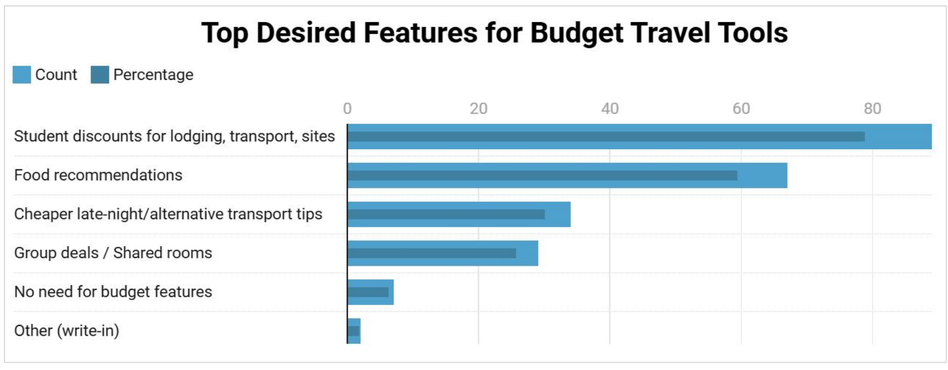

Fig.4 Travel spending habits

Given the low-budget focus, our survey showed that students most desire features like ***student discounts for accommodations and transport***, along with ***meal deals***.

User Needs & Pain Points	App Features Addressing the Need
Natural, fluid interaction	Flexible Planning Options Voice Input While Walking Visual & Interactive Itinerary
Smart itinerary suggestions	Smart Dining Integration Desire for Unique & Fresh Experiences Balanced Itinerary (Not Too Full or Empty)
Budget travel optimization	Suggests budget-friendly travel choices
Adaptive & real-time itinerary adjustments	Users can adjust the plan through in-app AI conversation

Fig.5 Must-to-have functions and detials

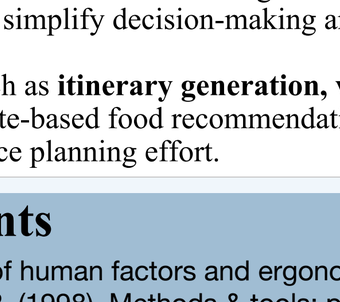

Fig.6 Functionality Recognition

Based on our needs analysis, we outlined the **required features** with *different priority* (see Figure 4), and a survey confirmed that over 50% of respondents supported **each *must-have requirement***. (see Figure 5)

02. Methodology

Based on user requirements gathered from interviews and surveys, we implemented three iterations guided by the Interaction Design Lifecycle Model(Figure 6), following its iterative cycle of discovering requirements, designing alternatives, prototyping, and evaluating.

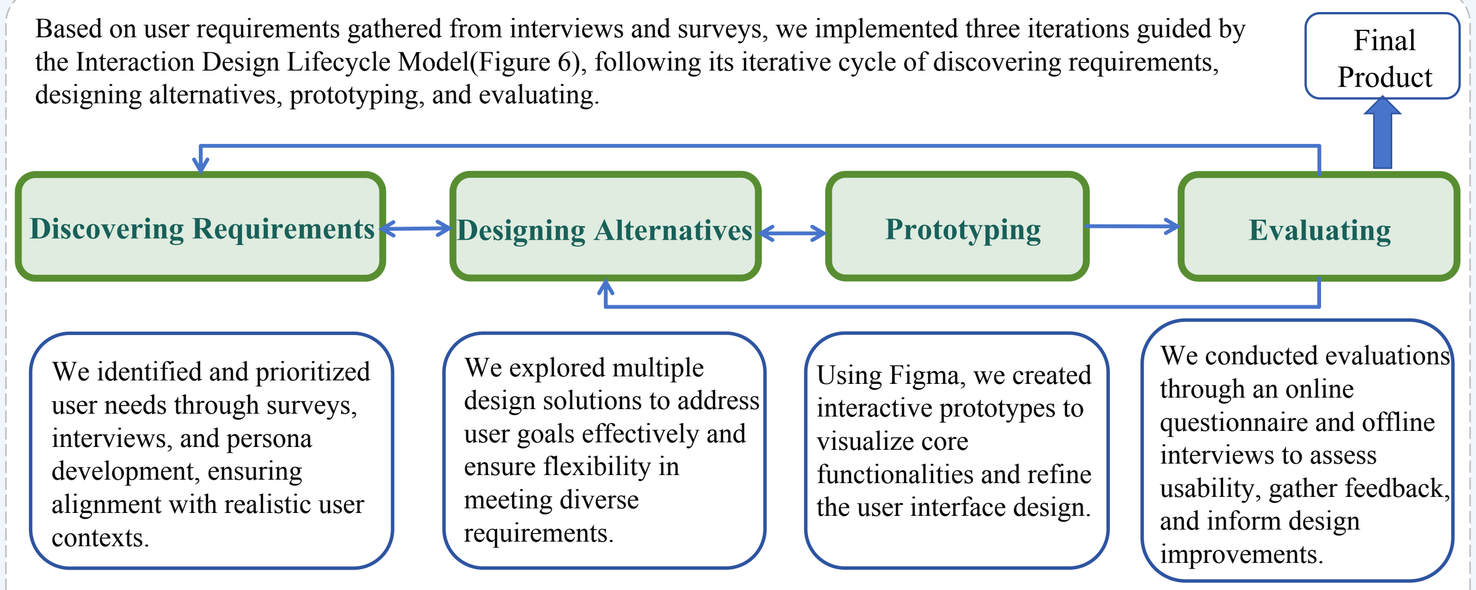

Fig.6 Interaction Design Lifecycle Model

04. Design alternatives and prototypes

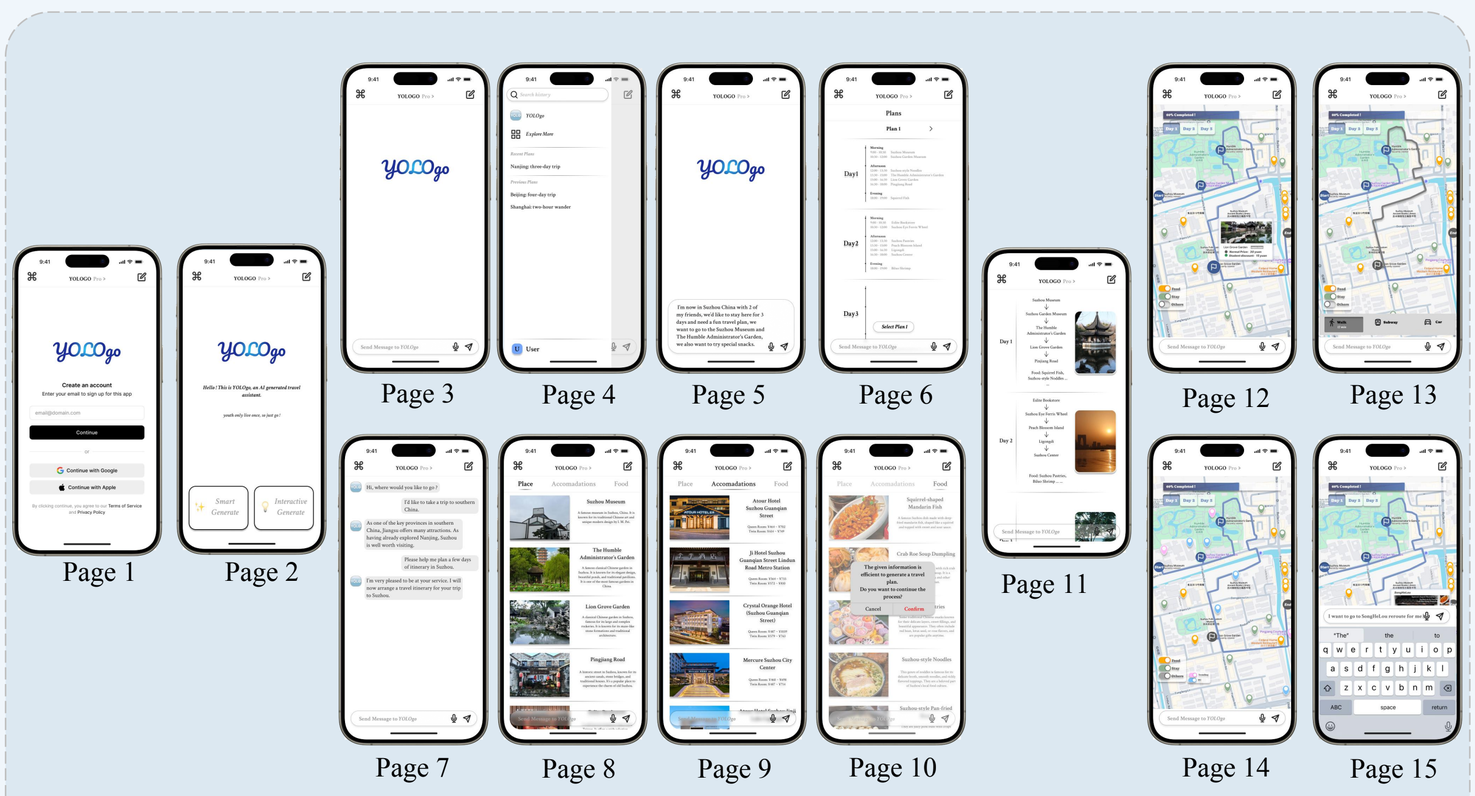

Fig.7 App prototype UI design

Main functions

Interactive Map: The prototype provides a map view for itinerary details. Daily routes appear in colored lines, with stops marked by color-coded icons. Users can see each location's distribution and order briefly. Clicking an icon opens a detail card with intro, reviews, and average cost. The map also includes icon filtering and route selection between two points.

Multiple Plan Comparison and Combination: The system generates at least 2-3 distinct itineraries, shown on a timeline. Users can compare daily differences, note advantages, and pick or combine plans.

Dynamic Itinerary Adjustment: Users can request changes in the chat, and the AI instantly replans and updates. This semi-automated mode ensures user control, avoids unconfirmed schedules, and balances flexibility with oversight.

Product Flow Overview

Users start by choosing one of two planning modes:

Line1:Quick Generate (page 3- page 6) – Ideal for users who already know their travel goals. The AI instantly generates multiple itinerary styles. Users can then select and customize their preferred plan.

Line2:Interactive Guidance (page 7- page 10) – For those still exploring ideas, the AI asks guided questions about preferences in areas like attractions, accommodation, and food. This helps users clarify their needs step by step.

Both paths lead to a preview of *a text-and-image itinerary* (page 11), which the AI then transforms into *a visual map with routes* (page 12- page 15). In this interactive map, users can further personalize the content they want to see along the route.

05. Evaluation

We conducted usability testing[1] and heuristic evaluation to refine the user experience. Key principles such as visibility of system status, flexibility for both novice and expert users, and consistent page layouts [2] were followed to ensure a smooth and intuitive interaction process.

06. Conclusion & Future Work

YOLOgo provides a **human-centered solution** to the common challenges university students face when planning trips with limited time and budget. Our survey results validate the need for personalized, affordable travel planning tools that simplify decision-making and enhance the overall experience.

While our current design outlines key features such as **itinerary generation, visual planning, and budget optimization**, future work will focus on implementing deeper personalization. Based on user feedback, we plan to explore features like taste-based food recommendations, AI-generated travel logs (Plogs), and interactive travel companions. We also aim to integrate real-time data from multiple platforms to improve reliability and reduce planning effort.

References & Acknowledgements

[1] Lewis, J. R. (2012). Usability testing. Handbook of human factors and ergonomics, 1267-1312.
[2] Muller, M. J., Matheson, L., Page, C., & Gallup, R. (1998). Methods & tools: participatory heuristic evaluation. interactions, 5(5), 13-18

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Feel free to scan the QR code below to see our prototype demo!