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Mobile Application
Proposal

Presented by
GROUP III

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Introduction

Jlaja is designed to simplify and enhance the travel experience by offering an all-in-one platform that allows users to plan, organize, and manage their trips efficiently. With features like group planning, shared itineraries, expense tracking, real-time location sharing, and more, Jlaja is positioned to meet the needs of casual and frequent travelers alike. Beyond its academic roots, Jlaja is also being proposed as a potential business venture for investors, with a clear path for monetization and scalability in the travel tech market.



We extend our heartfelt thanks to Professor Wandy Wandy for his guidance and insight throughout this process. Additionally, we are grateful to all those who contributed their time, support, and encouragement to help bring this project to life.



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Executive Summary

The travel industry is constantly evolving, and travelers are increasingly seeking digital solutions to streamline their experiences. Jlaja addresses this issue by offering a comprehensive platform designed for group travel planning and coordination. Its key features—group itinerary management, expense tracking, and real-time location sharing—offer seamless collaboration among travelers.

Built with scalability in mind, Jlaja is poised to capture a share of the growing travel tech market. With user-friendly design and robust technical architecture, the app has the potential to appeal to both local and international travelers, establishing itself as a go-to platform in the travel industry. We aim to secure strategic partnerships and investor funding to propel the app's development and commercialization.



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Timeline

01

Initial R&D

Sept 3 - Sept 24

App concepting	03-10
Features ideation	03-12
Brand design	10-17
Market research	10-17
Monetization ideation	10-17
Lo-fi UI design	16-19
Login page layout in Android Studio (AS)	17-23
Proposal development	10-24

02

Core App Development

Sept 25 - Oct 31

<i>September</i>	
Setup Firebase	25-27
User auth integration	25-30
Homepage UI design and layout in AS	25-30
<i>October</i>	
Hi-fi UI design	01-15
Group planning feature	02-18
Shared itinerary feature	02-18
AI-generated itinerary	02-18
Expense log feature	18-31
Split bill feature	18-31
Notifications setup	18-31

03

Test & Refine

Nov 1 - Nov 12

Internal beta testing	01-02
User testing	05-07
Bug fixing	02-10
App optimization	02-11
Pitch deck ideation	02-12
Pitch outlining	12

04

Pitch & Publish

Nov 13 - Nov 26

Finalize pitch deck	13-18
Pitching day	19
Copywriting for Google Play Store submission	20-22
Publish on Play Store	23
Promotion and launch	23-26

Meet Our Team

UI / UX

Developer



**Joel Nathanael
Marsahala**



**Jorel Alexander
Setiabudi**



**Calvin
Willyanto**



**Evan Aditya
Chandra**

Business & Commerce

Leader



**Georgius Bintang
Bagus Irianto**



**Rainer Dylan
Elias**



**Samuel Theodore
Gunawan**

Jlaja is developed by a team of seven dedicated students from Sampoerna University, with a shared passion for technology and innovation. While this is our first mobile app project, we bring a diverse set of skills, including front-end programming, UX/UI design, and strategic planning, making us well-equipped to execute the project from concept to reality.

Our vision for Jlaja is not just to create an app, but to build a solution that simplifies group travel and makes planning more efficient for both casual and frequent travelers. With a focus on innovation and practicality, we are eager to bring Jlaja to the market and create a positive impact in the travel industry.



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Application Components



**Group
Planning &
Voting**



**AI Generated
Itinerary &
Chatbot**



**Expense
Tracking**



**Itinerary
Checklist**



**Offline
Access**

Jlaja offers a range of features to cater to every traveler's needs. The free version provides essential tools like **basic trip planning**, allowing users to create and manage itineraries with ease. Travelers can also **share itineraries** with a limited number of people, making group coordination simple. The app includes a built-in **expense tracker** to monitor costs and ensure budgets are followed. Additionally, **weather updates** keep users informed of conditions at their destination, helping them adjust plans as needed.

For more advanced functionality, the **premium version** unlocks powerful features. Users get **unlimited access to shared itineraries**, making it easy to coordinate with larger groups or for more complex trips. **Offline access** to trip details ensures that plans are available even without internet connectivity. Jlaja also simplifies group expenses with **automatic expense splitting** and integrated payment systems, making settling bills hassle-free. The **real-time location tracking** feature allows users to stay aware of each other's whereabouts during the trip. To top it off, **task assignments** and **reminders** help delegate responsibilities, keeping everyone on track and ensuring smooth group travel.

Mind mapping could be accessed [here](#)



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Technical Requirements

Platform

The app will be initially developed for the **Android Operating System (API 24 ‘Nougat’)** to ensure broad accessibility and reach across mobile users.

Backend

Firebase (cloud-based **server architecture**) and **Firestore** (cloud-based **database**) will be used to support scalability, ensure data resilience, and provide seamless performance under varying loads.

Frontend

Jlaja's front-end is developed using **Kotlin** and **Java**, providing a responsive, efficient, and scalable user experience on Android platforms.

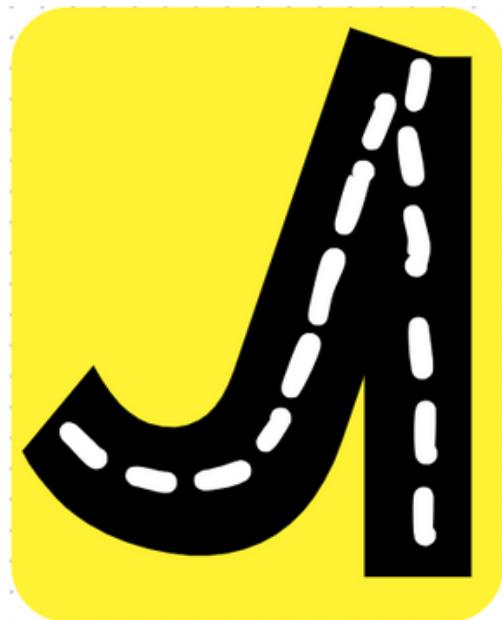
- **Security Measures:** Jlaja incorporates **OTP via phone** and **Two-Factor Authentication (2FA)** to enhance security, ensuring user data protection and secure account access across all interactions.
- **API Integration:** Third-party services including payment gateways (**Midtrans**), **social media platforms** (for sharing and connection features), and **language translation** APIs for multilingual support.



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Logo Philosophy

Our logo embodies the core principles of connection, exploration, and modern simplicity, which align with the mission of our app.



Initial Sketch

Symbolism of Roads:

The initial sketch illustrates two roads converging, symbolizing how our app facilitates connections between people. This merging of paths reflects the **seamless experience of planning trips**, organizing events, and **collaborating in groups**—all of which are central features of the Jlaja app.

Letters 'J' and 'L':

The abstract formation of the letters 'J' and 'L' in the logo represents the first two letters of our brand name "Jlaja." This integration adds an artistic yet **personalized touch, reinforcing the brand's identity** in a subtle and sophisticated manner.



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Logo Philosophy



Modernized-Minimalist Final Logo

Our logo embodies the core principles of connection, exploration, and modern simplicity, which align with the mission of our app.

Evolution to Minimalism:

As the design evolved, the logo transformed into a **sleek and minimalist** representation. The modernized look, with its simple lines and geometric forms, is visually clean and effective across digital platforms. The grounding qualities of green and the stimulating, adventurous vibe of orange. This harmony captures the dual essence of travel: exploration (orange) and connection with nature (green) - important to Jlaja's mission of connecting people through travel.



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Logo Philosophy



Modernized-Minimalist Final Logo

Compass as a Full Stop:

The circular icon in the bottom right corner, which contains a stylized compass, serves as both a full stop to the logo and a symbol of direction and guidance. The compass represents **exploration, discovery, and navigation**—mirroring the app's ability to help users find and plan their journeys with ease. This thoughtful detail emphasizes that users are not just connecting, but also exploring, guided by **purpose and mindfulness**.

Overall Message:

The Jlaja logo encapsulates the concepts of **connection, exploration, and togetherness**. The bold simplicity of the design ensures it is adaptable across various media, while the use of the compass signals a deeper purpose—guiding users to meaningful and responsible experiences.



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UX Theory & Flow



Android Splash Screen

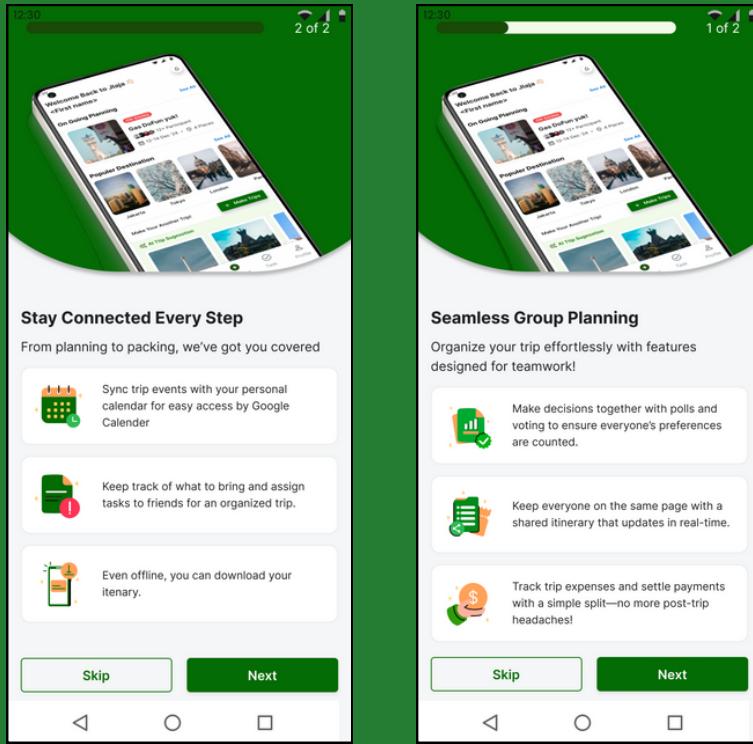
Purpose

The splash screen introduces the brand (in this case, "Jlaja") to the user. It is a transitional screen shown while the app is loading.

UX Consideration

- Brand Awareness: This screen helps build brand recognition and sets the tone for the user's experience. The logo is centered and prominent, contributing to instant recognition.
- Minimalism: It is simple, with no distractions. A clean splash screen avoids overwhelming the user and gives a sense of focus.
- Delay Management: The app's loading time is hidden by this screen, reducing perceived waiting times, a key part of enhancing the user experience.

Onboarding Screens



Purpose

These screens likely introduce key features or instructions to guide users in using the app, leading them toward signing up or using the app.

UX Consideration

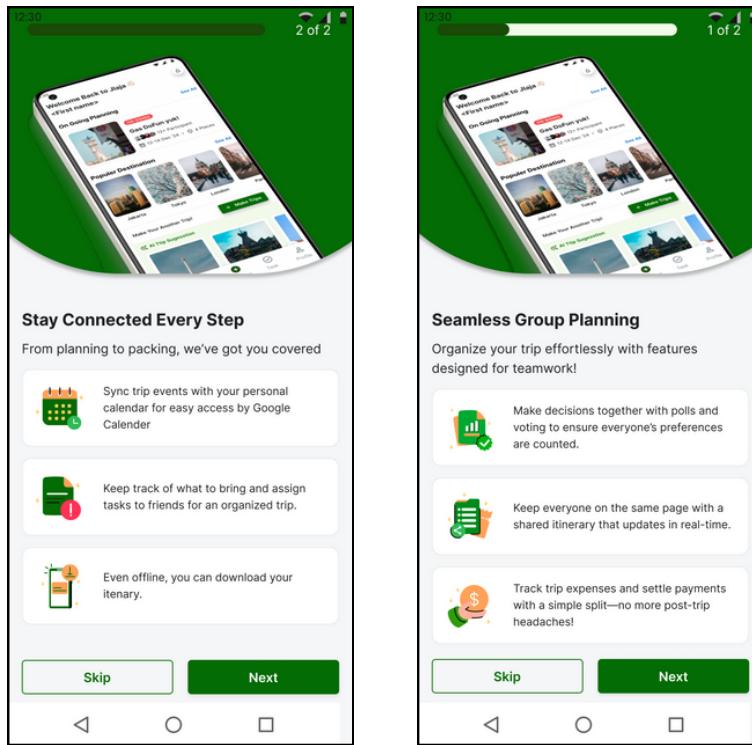
Content Hierarchy: The top-down layout guides users from the text to the action button, ensuring readability and prioritizing user action.

Whitespace: Ample whitespace reduces cognitive load, promoting clarity and simplicity.

Progress Indicators: Dots at the bottom show progress, giving users control and setting expectations for the onboarding process.

Consistency: The consistent layout (logo, text, button) across screens creates familiarity, reducing friction and making navigation easier.

Onboarding Screens (continued)



Action-Oriented Design:

- Next Button: The "Next" buttons are predictably placed at the bottom, aligning with user expectations and simplifying navigation.
- Contrast and Affordance: The solid-bordered buttons contrast with the white background, making them clearly identifiable as interactive elements, ensuring usability by reducing guesswork.
- Primary Action Highlighting: Clear, action-oriented labels to guide users. The final "Start Planning" button, highlighted in green, emphasizes its importance as the main call-to-action, signaling the end of onboarding.

Transition to App Usage:

- Signaling Completion: The "Start Planning" button signals the end of onboarding, guiding users to the app's core functionality, aligning with user expectations for a clear transition.
- Motivation: Using active language like "Start Planning" ties into emotional design, encouraging the user to feel ready and empowered to begin.



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Branding and Recognition:

The "Jlaja." logo at the top reinforces brand identity and remains consistent across screens, aiding familiarity and reducing cognitive load.

Visual Hierarchy and Layout:

Greeting text like "Hello, Welcome Back!" creates a friendly tone. Icons for username and password save space and improve usability, while ample whitespace reduces clutter and enhances focus.

Buttons and CTAs:

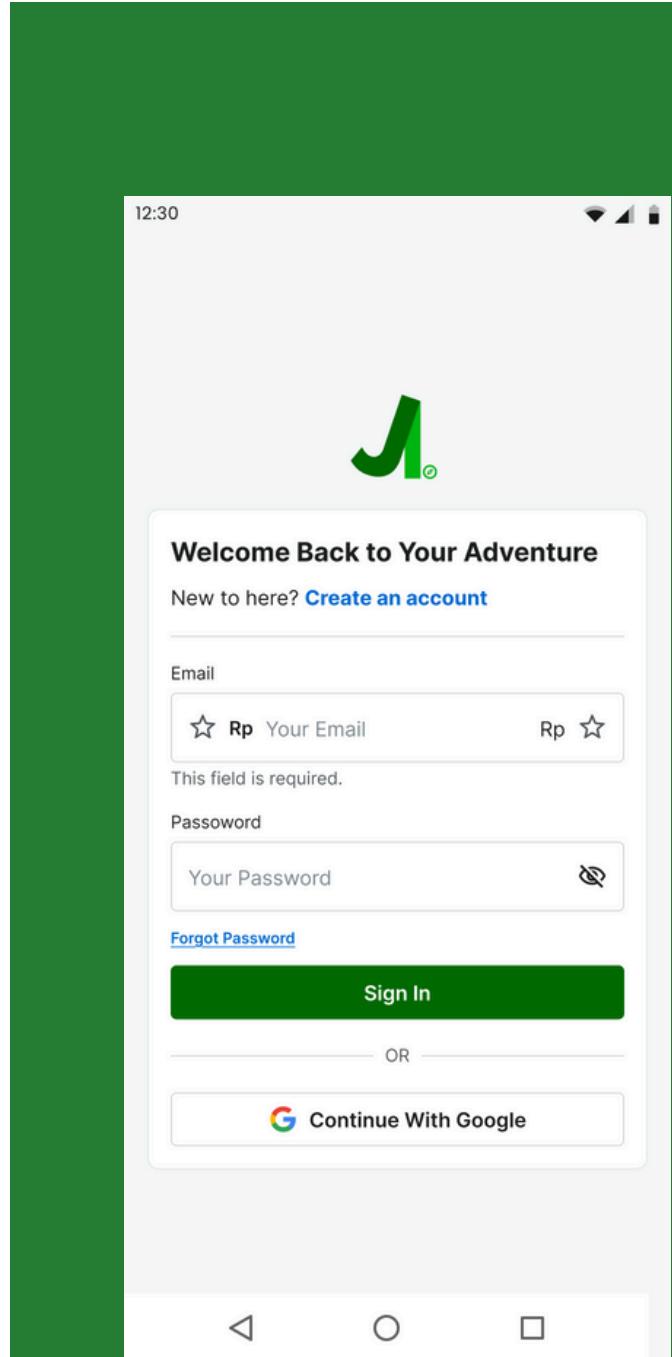
The solid green "Login" button stands out with high contrast, signaling the primary action. Secondary actions like "Forgot Password" and "Sign Up" are smaller and use different colors to follow visual hierarchy.

Predictability:

The form layout (username, password, login) follows conventional patterns, ensuring a familiar user experience.

Error Prevention and Recovery:

The "Forgot Password" link helps users recover accounts easily, while "Sign Up" clearly directs new users.



Android Login Screen



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A screenshot of a mobile application's sign-up screen. The top bar shows the time as 12:30 and has signal strength icons. The main content area has a white background with a dark grey header.

Start Your Adventure!

Already have an account? [Login in here](#)

First Name

Second Name

Email

Your Password

Confirm Password

I agree with [terms and conditions](#) by Jaja

Sign In

OR

Continue With Google

Navigation icons: back, forward, search.

Sign up screen

Branding and Introduction:

The consistent logo placement reinforces brand identity and familiarity. The title "Create an account" and supporting text clearly convey the screen's purpose and app value.

Input Fields and Icons:

Clearly labeled fields with familiar icons improve efficiency, while well-spaced fields with ample whitespace enhance readability and prevent overwhelm.

CTAs:

The prominent green "Sign Up" button is the primary action. The bordered "Sign in with Google" offers a faster alternative, reducing barriers. The "Login" link, a secondary action, helps users navigate between flows without confusion.

Progressive Disclosure:

Offering email sign-up and Google sign-in provides flexible, user-friendly entry points, with clear distinction between primary and secondary actions to minimize errors.



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Branding & Recognition:

The logo consistently anchors the screen, building brand familiarity, while the profile icon ensures easy access to personal settings.

Visual Hierarchy:

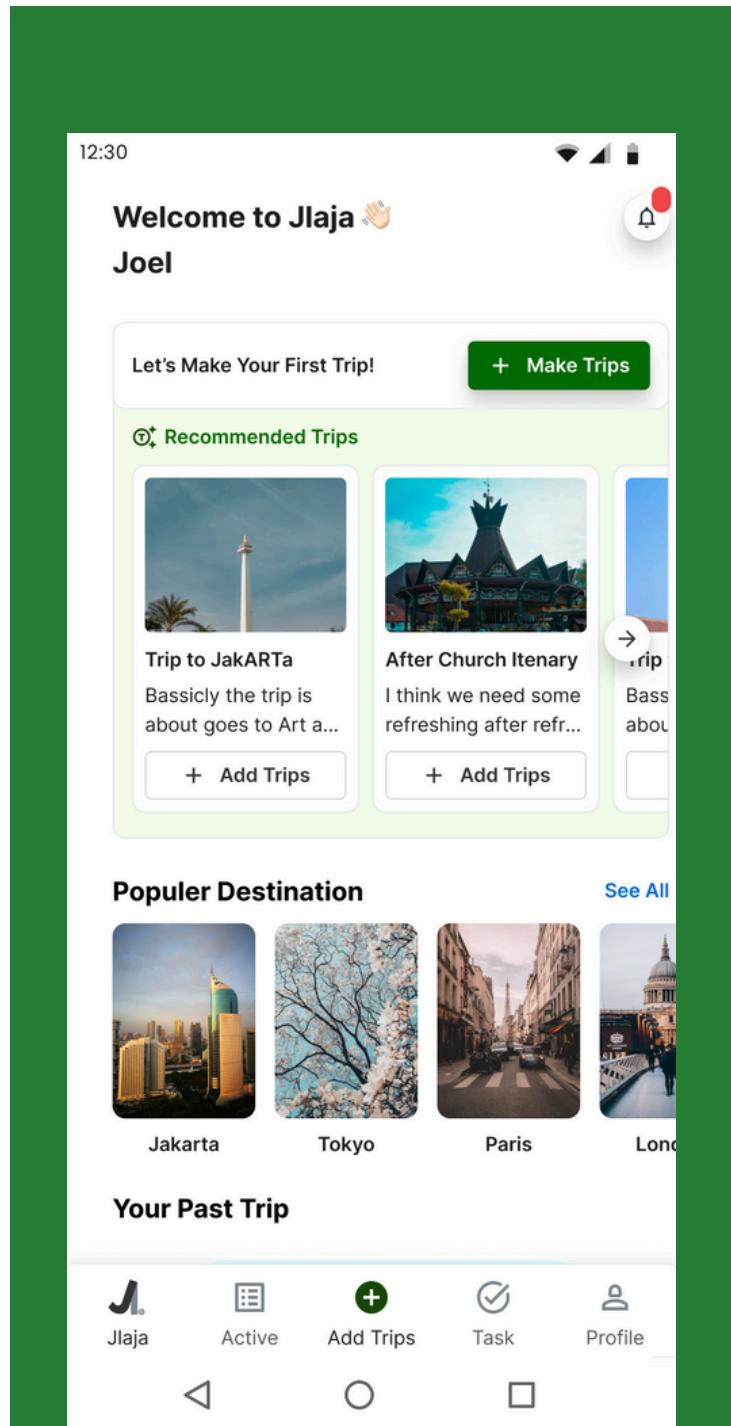
The welcome message is bold and personal, capturing attention. The “Ongoing Trips” and “Past Trips” sections are organized logically, with minimal details, using cards for easy scanning.

Navigation & Interaction:

The bottom navigation bar, featuring familiar icons, is intuitive, with the Home button centrally placed. Large touch targets follow Fitts's Law, making interaction easy.

Progressive Disclosure & Simplicity:

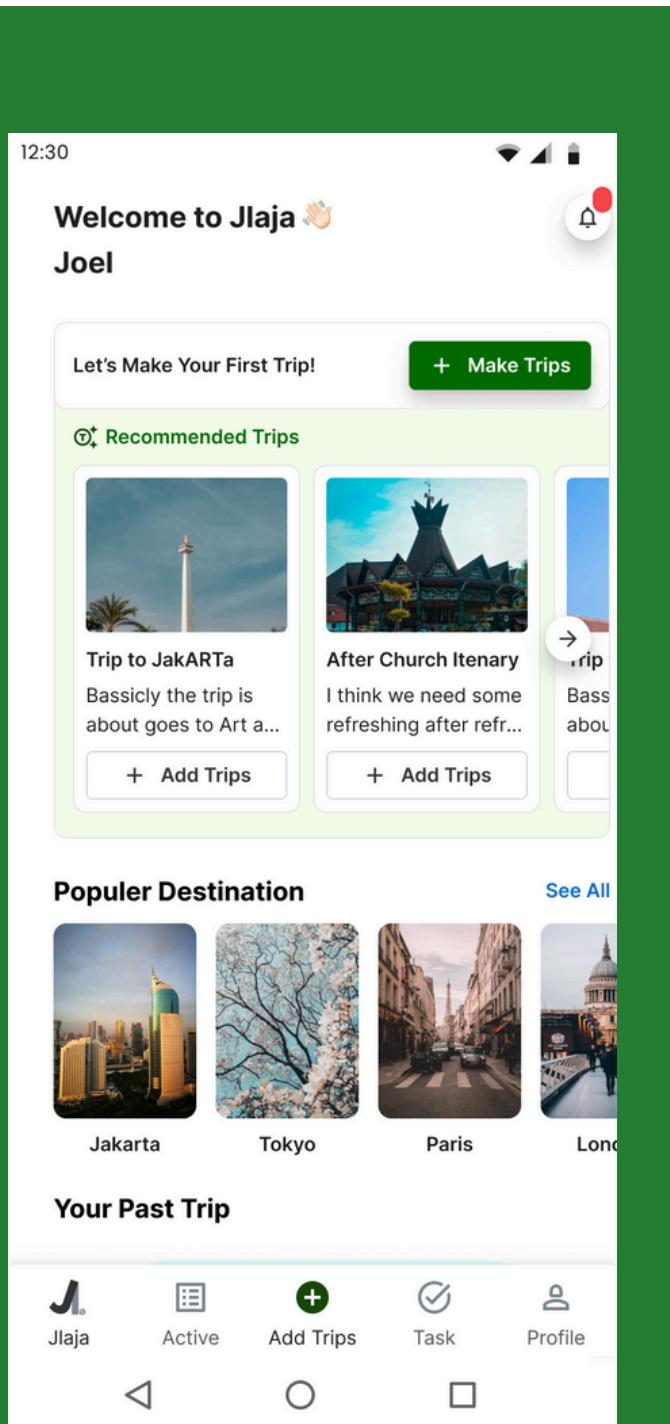
Minimal text and clear CTAs (e.g., the plus icon and "View more") guide users through key actions, reducing cognitive load.



Home screen



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Home screen

Personalization & Engagement:

Personalized greetings and progress trackers create a sense of connection and motivate users to engage.

Affordance & Feedback:

Icons like the plus sign clearly invite interaction, and the design emphasizes user control and clean exploration.

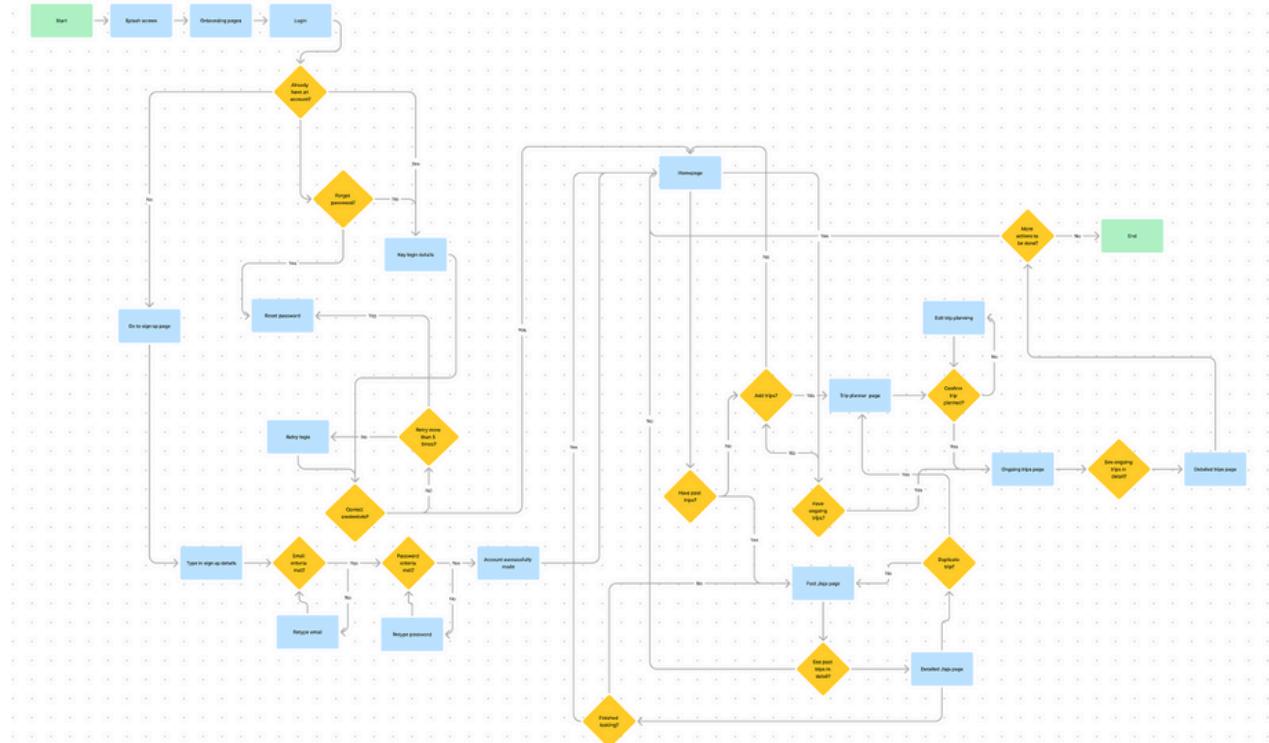
Accessibility:

Readable text, large buttons, and strong contrast align with accessibility standards, ensuring usability for all.



UX Flow (up to homepage)

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The user experience (UX) flow begins with the **splash screen**, followed by a series of onboarding screens.

After onboarding, the user is directed to the **login page**. At this point, the app will prompt the user to confirm whether they have an account and remember their login credentials.

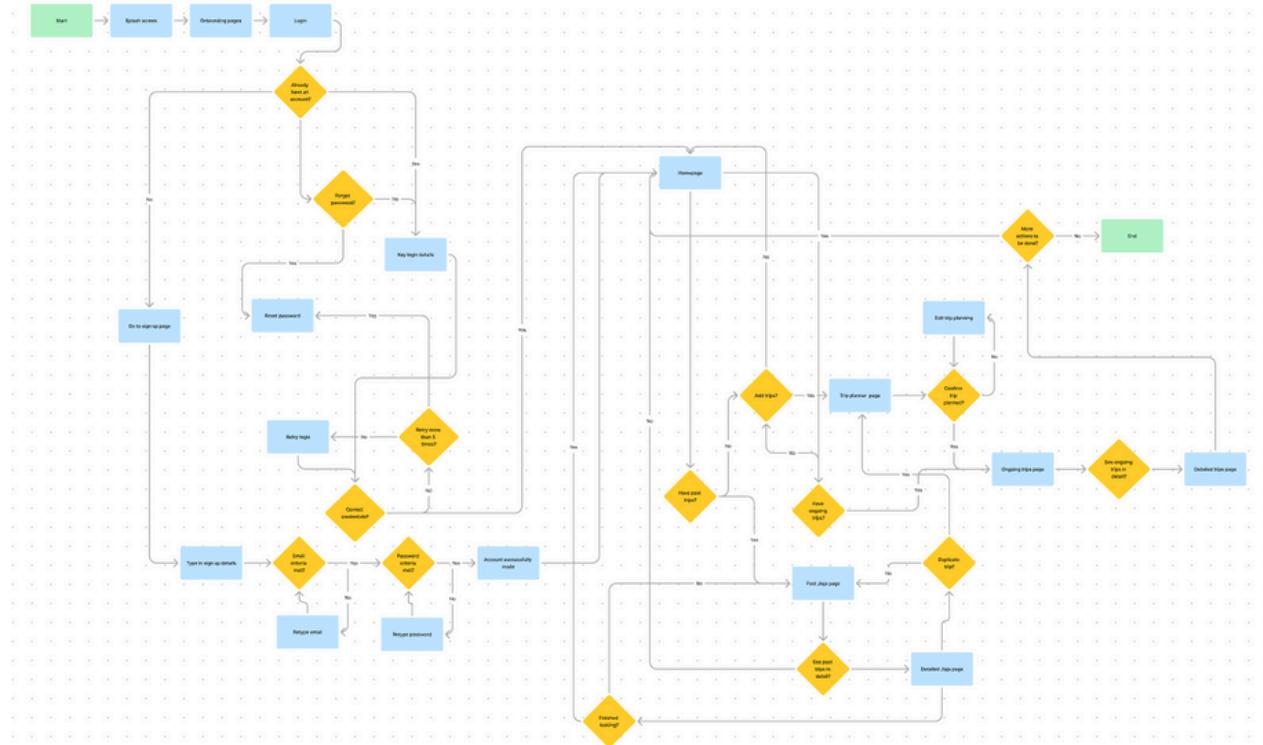
If the user has forgotten their password, they will be redirected to the **password reset process**. However, if the user creates a new account or enters valid login details, they will be successfully redirected to the **homepage**.

View the UX Flow [here](#).



UX Flow (from homepage)

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According to the UX flow, the user is presented with two options: view '**Ongoing Trips**' or '**Past Trips (Jlaja)**'.

If there are no ongoing or past trips, they can plan a new trip on the '**Trip Planner**' page'. Once a trip is confirmed in the 'Trip Planner,' it will appear in the '**Ongoing Trips**' section.

In the 'Past Trips (Jlaja)' section, users can **duplicate previous trips** to save time. They can also view detailed reviews of both their past and ongoing trips.

[View the UX Flow here.](#)

Cost & Expenses

The development and launch of Jlaja require careful planning and allocation of resources to ensure its successful execution and scalability. This section provides a brief overview of the projected costs and expenses necessary for the app's development, marketing, operations, and infrastructure.

The outlined costs covers the anticipated expenses of running a mobile application with the capacity of 50.000 downloads in the Android operating system using the *Firebase* backend system as of November 2024.

This breakdown offers a comprehensive view of the financial investment needed to achieve key milestones and position Jlaja for long-term growth with the exception of expected expense in legal, local business regulations fee, and local tax.





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Cost of Development

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
*BACKEND DEVELOPMENT (FIREBASE)	605.600	Monthly	605.600.95
PR & MARKETING	4.500.000	Monthly	4.500.000
DEVELOPER FIXED RATE (3 PAX)	24.000.000	Monthly	24.000.000
ESTIMATED TOTAL			29.105.600

*Refer to next page for details and specifics.

Cost of Business Operations

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
BUSINESS PROPOSAL	4.500.000	Monthly (2 Months)	4.500.000
MARKET RESEARCH & FEASIBILITY STUDY	4.500.000	Month of Research & Publish	4.500.000
LEGAL & COMPLIANCE	Undetermined	Undetermined	Undetermined
ESTIMATED TOTAL			9.000.000

Cost of Firebase Backend

Calculated using Firebase pricing calculator per September 2024

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
CLOUD FIRESTORE	168.710	Monthly	168.710
REALTIME DATABASE	No cost	Monthly	No cost
AUTHENTICATION	No cost	Monthly	No cost
CLOUD STORAGE	100.618	Monthly	100.618
CLOUD FUNCTION	No cost	Monthly	No cost
HOSTING	85.722	Monthly	85.722
FIREBASE ML	250.785	Monthly	250.785
TESTLAB & *QA	No cost	Daily	No cost
ESTIMATED TOTAL			605.836

*Quality Assesment



This expense is based on an app designed to accommodate 50,000 installations [1]. A significant increase in costs is anticipated over time, especially if the app is required to support a higher volume of downloads.

[1] See citations for further detail



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Cost of Publishing and Marketing

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
GOOGLE PLAY STORE DEVELOPER ACCOUNT	379.970	One-Time	379.970 (one-time purchase)
INITIAL MARKETING (SOCIAL MEDIA, ADS)	7.000.000	Monthly	7.000.000
APP STORE OPTIMIZATION (ASO)	3.800.000	Monthly	3.800.000
ESTIMATED TOTAL			11.179.970

Cost of UI/UX

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
UI/UX DESIGNER (PAX)	4.500.000	Monthly	4.500.000
PROTOTYPING & WIREFRAMING TOOLS	No cost	No cost	No cost
ESTIMATED TOTAL			4.500.000





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Ongoing Expense (Post Launch)

DEPARTMENT	COST (IDR)	PERIOD	MONTHLY TOTAL (IDR)
CUSTOMER SUPPORT [2]	5.500.000	Monthly	5.500.000
APP MAINTENANCE & BUG FIXES	7.000.000	Month of Maintenance	7.000.000
ESTIMATED TOTAL			12.500.000

[2] See citations for further detail

Overall Monthly Cost

COST DESCRIPTION	TOTAL (IDR)
DEVELOPMENT	28.500.000
BUSINESS OPERATIONS	9.000.000
FIREBASE BACKEND	605.836
PUBLISHING AND MARKETING	11.179.970
UI/UX	4.500.000
ONGOING	12.500.000
ESTIMATED TOTAL	66.285.570

*Not including taxes and licensing



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Next Steps

As we move forward, our immediate focus is on completing the core development of the app, conducting user testing, and building partnerships that align with our monetization strategy.

01

Finalize MVP: Complete the Minimum Viable Product (MVP) with essential features within the next few months.

02

Beta Testing & Feedback: Launch a beta version to a small group of users, gather feedback, and refine the app's performance based on user input.

03

Marketing Initiatives: Platforms like Instagram and TikTok will be key for social media promotions to build an early user base, focusing on students and young travelers.

10%

With a target user base growth of **10%** per month, we aim to scale to 24,000 users by the end of year one with a foundation of 5,000 users in the first 6 months.

15%

We estimate that **10-15%** of users will engage with affiliate offers, growing as we add more partners and exclusive deals.

50%

With targeted Google ads and banner ads, we aim to monetize **50%** of our free user base by displaying relevant ads

Scalability & Initial Developments

References

- [1] Firebase. (n.d.). See a cloud Firestore pricing example / Firebase. Firebase. <https://firebase.google.com/docs/firestore/billing-example#small-50k-installs>
- [2] SEEK Limited. (2024, March 22). Apa Itu Customer Service? Tugas, Gaji Dan Skillnya - Jobstreet Indonesia. Jobstreet. <https://id.jobstreet.com/id/career-advice/article/apa-itu-customer-service-tugas-gaji-skill>



*Simplify Your Travel,
Amplify Your Fun*



Group III