Duolingo

Push Notifications

Product Teardown

Next leap's learn in public challenge

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What is Duolingo

Duolingo is a popular platform that offers gamified approach to language education. It aims to make language learning easy, accessible, effective and enjoyable. Duolingo's bite-sized lessons incorporate **interactive exercises, quizzes, and speaking practice**, allowing users to develop their **reading, writing, listening, and speaking skills** effectively.

The platform encourages consistent practice through features like streak tracking and personalized notifications, helping users stay motivated and engaged.

Duolingo in numbers

500 Mn+ registered users
40 Mn+ MAU
3.2 Mn+ paid users

40+ Languages
100+ Courses
7Bn+ Lessons/month

600 Mn+ Downloads
4.7 Star rating
$350 Mn+ Annual Revenue

When Duolingo launched in 2011, it had around 100,000 weekly active users. As of 2024, Duolingo boasts over 40 million weekly active users.

Target User Segment

Students

Professionals

Travellers

Casual Learners

Key Value Propositions

Free Access

Gamified Learning

High Engagement

Community & Support
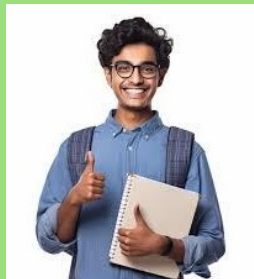
Personlized Learning

Wide Language Selection

Raghav Ram
17 y/o Student
Going for higher studies

Mostly uses the app on mobile in their room for learning.

Needs

Communicate effectively and confidently

Understand lectures clearly

Make new friends

Learn from his room at affordable price

Pain-points

Insufficient language proficiency

Lack of confidence in speaking

High prices of language courses

The process of learning new language is boring

Richa Patel
25 y/o Fresher
Preparing for first job

Uses both mobile and laptop from her room for preparation.

Needs

Professional Communication

Presentation Skills

Industry specific vocabulary

Networking

Career Advancement

Convenient and easy learning

Pain-points

Time Constraint

High cost of courses

Limited Practice Oppotunities

Lack of confidence

Access to quality resources

Boring Process

Duolingo provides two types of notifications to it's users i.e Push notifications and In app notifications

Push notifications

Push notifications are real-time messages delivered to a user's device to capture their attention, even if the app is closed. They appear as alerts on the lock screen or notification center, designed to prompt user action or provide updates. These notifications keep users informed and encourage app interaction.

Example

Daily Streak Reminders, Goal Reminders, Practice Reminders, New Features or updates, Special Challenges Subscription offers, Friend activity

Benifits

Increased User Engagement, User Retention, Timely Updates, Improved User Experience

In app Notifications

In-app notifications in Duolingo appear while using the app, offering real-time feedback, updates, and guidance through banners or pop-ups. They enhance the learning experience with immediate progress and achievement alerts.

Example

Completion feedback, Progress Updates, Practice Suggestions, Achievement Alerts, Lesson Updates, Error Messages

Benifits

Real time interaction, Enhanced User EX, Increased User Retention, Personalization, User Feedback, User Education
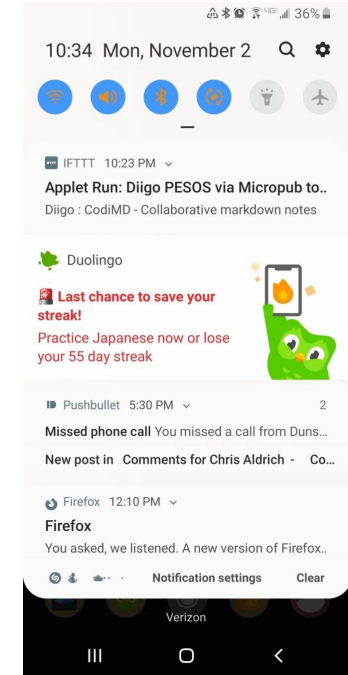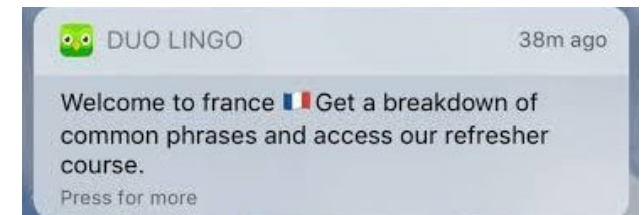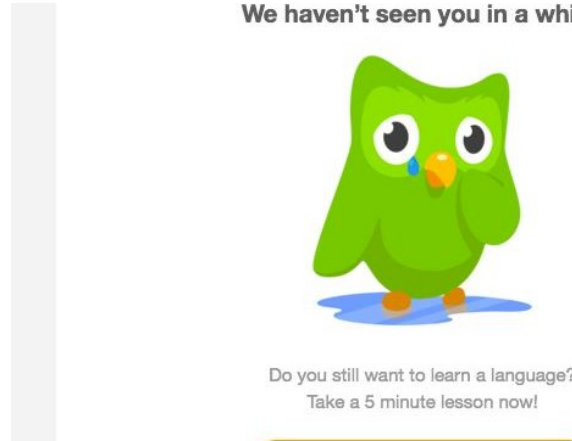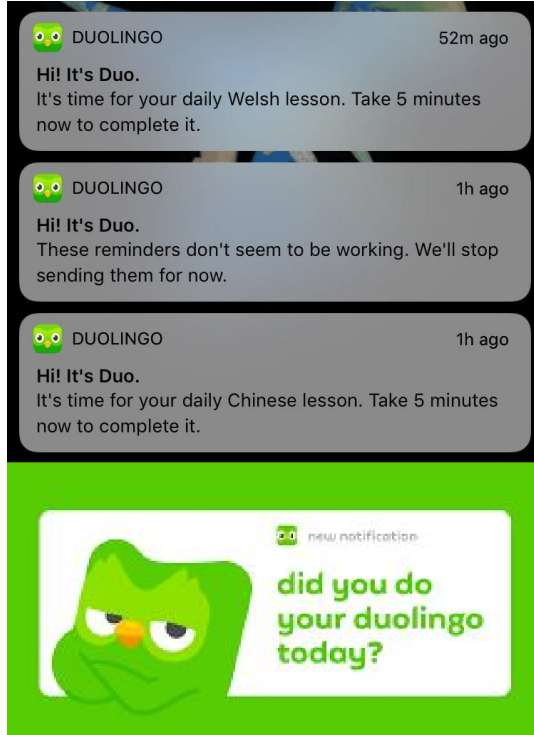
We haven't seen you in a while.

Do you still want to learn a language?
Take a 5 minute lesson now!
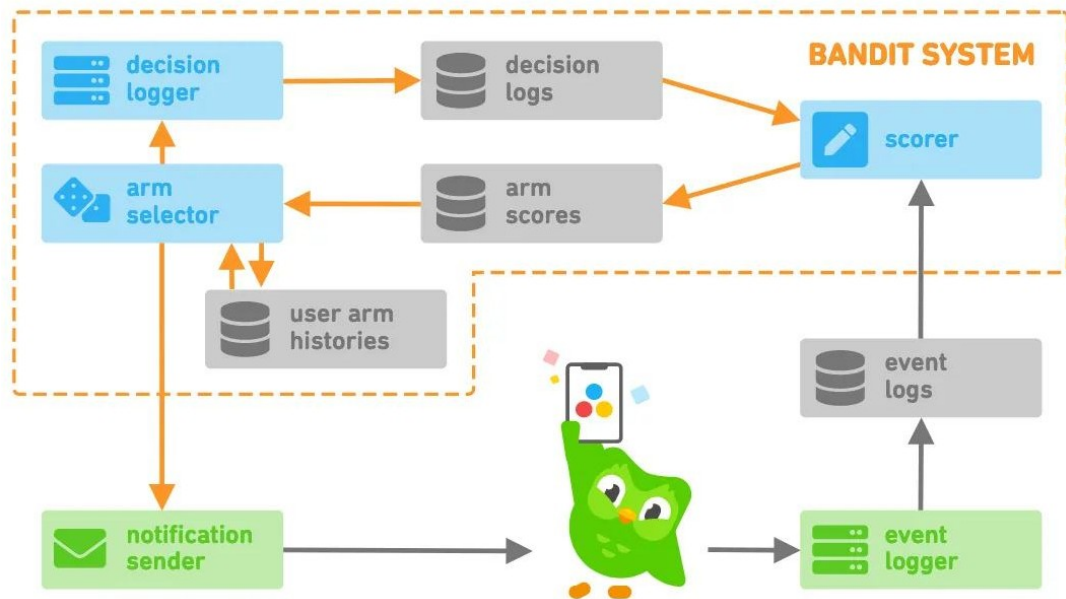
Technology

Figure 6: System diagram of our deployment architecture.

Are notifications really working for the companies ?

For daily-interaction platforms like Duolingo, notifications are highly effective. However, in the e-commerce industry, where users don't visit the app daily, push notifications are less impactful. New Android updates and other apps are silencing push notifications to save battery and space.

E-commerce platforms are continuously seeking new methods for user engagement and retention.

Overview   User Persona   Notifications   **UX**   Key Metrics

Behind the scene

A stack is an arrangement of "things" kept in order one over the other, and a technology stack is a set of technologies stacked together to build any application. The technology stack determines the type of applications you can build, the level of customization possible, and the resources needed for development.

ASP.net

ASP.Net could help build Duolingo's web-based applications with .NET and C#.

Criteo

Duolingo could use Criteo for dynamic, personalized ads to re-engage potential learners.

jQuery

jQuery could simplify client-side scripting and ensure Duolingo's web pages work across different browsers.

Frontend

User Interface
User Flow

Backend

Programming logic
Servers
Databases
Functionality

Push Engage

PushEngage could be used to send personalized browser push notifications to remind and engage Duolingo users.

Key Success Metrics
Keep as high as possible

Number of lessons/User/Day
Daily Active Users , Monthly Active
Users.
Retention Rate, Churn Rate, Bounce Rate
Click Through Rate on Push notifications
Subscribers to Learner Ratio
Net Promoter Score

Key Failure Metrics
Keep as low as possible

Customer Acquisition Cost (CAC)
/ User Lifetime Value (LTV)

Churn Rate / Retention Rate

Customer Support Requests /
Active Users

next leap

Gamification and engaging content are key drivers of
Duolingo's success.