

Building **QUACK**

A Social Discovery App

A Mobile Social Application, exclusively for
students, built on PHP using MongoDB





The Client

An Australia-based young entrepreneur, with an insight into student psyche and an interest in creating a social app that brings student communities closer and enables peer networking.

The Background

In spite of the success of social media platforms like Facebook, Twitter and Tumblr, there is still space for an interactive platform where like minded peers, primarily students, can get together, build social connections, share thoughts and ideas, stay updated, and make new friends, minus parental and other external interferences.

The Task

- Building an all new social media app that is exclusively for high school students in Australia, while dealing with the expansiveness of Big Data.
- Bringing together the complexity of back-end operations with the user-friendliness of the front-end, and ensuring that the experience is limited exclusively to young students.

The Challenge

- Building a highly scalable social app within a modest budget and short timeline.
- An incredibly large number of users, and Big Data – humongous amounts of shareable data such as text, pictures and videos.
- Building the UX – creating an app that is high on usability.
- Creating a read-intensive application.
- Ensuring zero latency of delivery.
- A constantly evolving platform that requires frequent changes in functionalities to achieve desired results.



Why Suyati

- A proficient team of Product Engineering Consultants, and a cumulative experience of 20+ years.
- Expertise in Open Source, PHP and MongoDB.
- A Suyati innovation termed Mongologue—a framework that allows one to build niche social media platforms that facilitate the sharing of myriad content such as text, pictures and videos, and is horizontally scalable.

Solution in a Line

Build Quack, a new High School Social App on PHP, using MongoDB and Mongologue that is horizontally scalable, thereby creating a platform to share content.

The Solution Highlights

To develop Quack, the product engineers at Suyati chose MongoDB for its excellent capabilities in scalability and handling large amounts of data, along with filtering and searching, besides quick APIs.

MongoDB is competent in handling a variety of data formats; be it text, videos, pictures, tags and more. This ability to work with a range of data structures made MongoDB a good choice of database to build Quack on.





Features

Quack is an easy and accessible mobile social app for students in Australia that allows students to follow schools and universities of their choice, and receive Quack-styled posts and pictures from students attending the chosen institutions.

Students can select the year levels they would like to follow and interact with like-minded peers, while also sharing their own content like status updates, photos and videos. The app also offers the opportunity to meet new people and make new friends.

Its features are:

- Login using Facebook username and password.
- Find and select your own school/university and the year level you are in.
- Find and follow other schools/universities and select year levels to get updates from students who are attending the schools you follow in the year levels you have selected.
- You can like, comment, post pictures and tag followers, and write blogs.
- Your profile will show your pictures from Facebook.
- You can check out mutual friends and share interests with individuals you follow.
- You can write your own posts or select pre-made posts, and edit them, tag followers in them or create hash tags.
- Snap Chat-like timed photos, where you can post photographs and add a timer to them, after which the photos will disappear from your post.
- You can unsubscribe from users' posts or block them completely if you don't wish to interact with them.



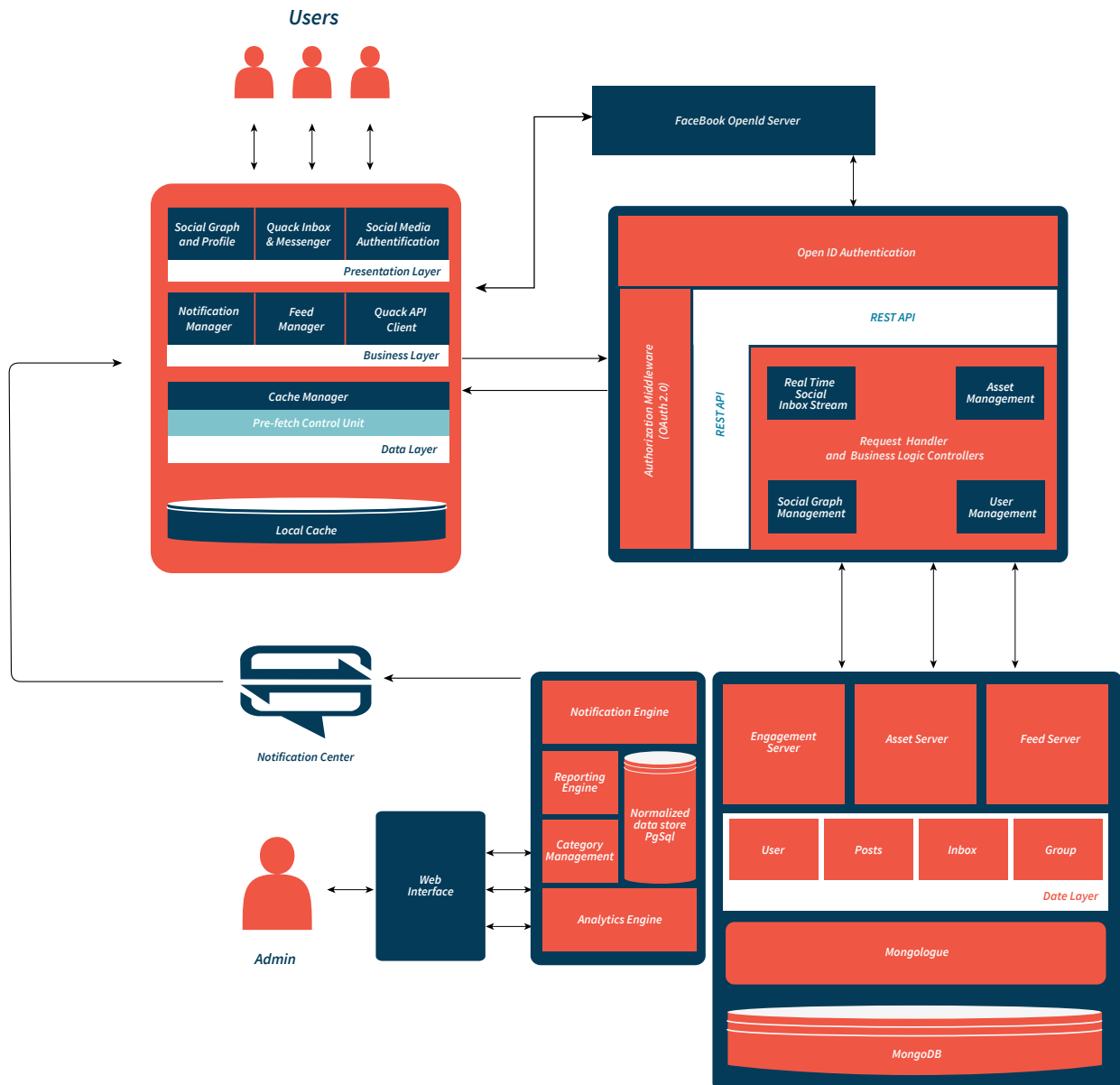
Technical Features

The Quack app is built for Cloud as the exact number of users cannot be predicted. It had to be horizontally scalable; and therefore a technology called sharding in MongoDB was used. Sharding divides the data over multiple servers called shards, and each individual shard acts as a standalone database, while together they make up a single logical database.

The technical features of Quack include:

- An iPhone app with the back-end built on PHP.
- MongoDB and Mongologue framework to ensure horizontal scalability and the handling of varied sharable content.
- Rest API built using Slim framework.
- OAuth 2.0 authentication for Rest API.
- A custom layer that handles the logic exclusive to Quack.
- Notification Engine to push notifications to the phone app.
- Facebook SDK Integration for Single SignOn.
- Facebook Mutual likes and Friends listing.
- Data Caching using CoreData Framework.
- User Tagging along with Comment or Post.

The System Design



Results

Quack was launched in the AppStore in May 2015, and the initial response has been remarkable.



About us

Suyati focuses on delivering niche IT solutions and services, including CMS (Ektron), CRM (Salesforce) and e-commerce. We are an Ektron Featured Implementation Partner, Microsoft Gold Partner, and Salesforce AppExchange Partner, with extensive experience in .NET, FOSS and Mobile App technologies.

Suyati's expertise in Open Source, PHP and MongoDB is manifested by a team of 6+ developers and product engineering consultants. We are, in fact, a ready partner for MongoDB, acknowledged by the organization themselves. We pride ourselves in the development of Mongologue—a framework that facilitates the creation of social media sites.

To learn more visit: www.suyati.com/services

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