

# Mobile Application for The Link REIT

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Sponsored by The Link REIT

# Background

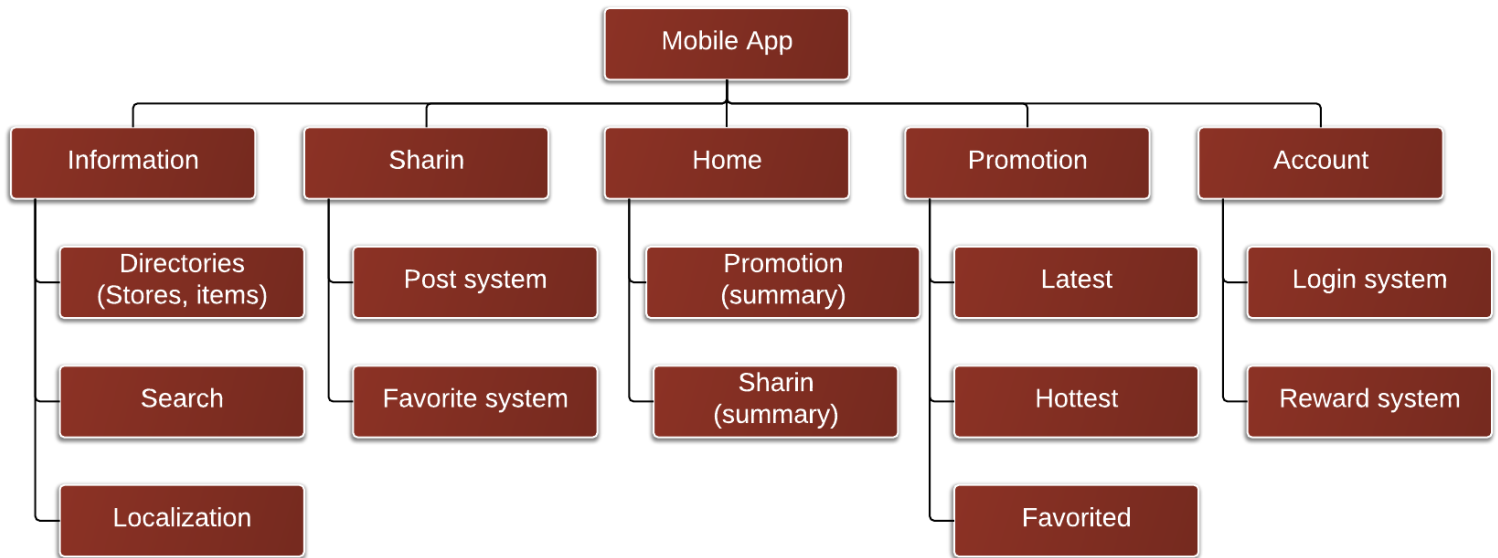
The Link Real Estate Investment Trust (“The Link REIT”), being the leading REIT in Asia, has the desire to serve local communities not only by physical means, but also by the use of new technologies.

In this project, we used both engineering and business approaches to develop a mobile application and a web interface for The Link REIT. The aim is to bring The Link REIT and the visitors of the Lok Fu Plaza together as a community. The application can bring both parties a positive experience and help the visitors to engage in the community.

## Project Feature Overview

### Mobile App

The mobile app is designed for Lok Fu Plaza customers to improve their shopping experiences, and attract more people to the mall.



### Administration Website

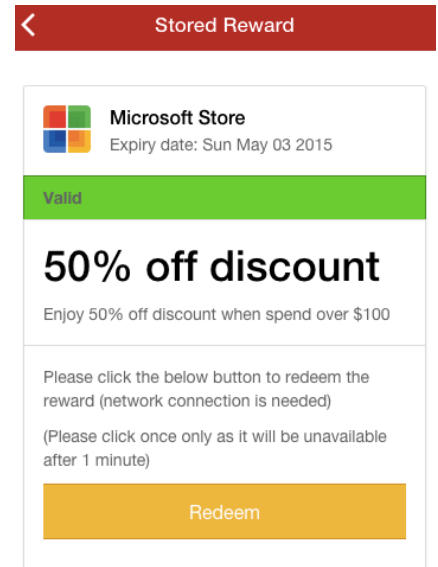
The administration website is designed for LinkREIT system administrators, analysts and storeowners to monitor the database system, analyze the data and upload information respectively.

store_id	image	message	like	uploadDate	endDate
7	<a href="http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/mcdonaldsP1.jpg">http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/mcdonaldsP1.jpg</a>	Killer O-Fish is only sold for \$9!	11	2015-04-01 00:00:00	2015-04-30 00:00:00
8	<a href="http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/starbucksP1.jpg">http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/starbucksP1.jpg</a>	Exclusive christmas Starbucks card collection.	20	2015-04-01 00:00:00	2015-04-08 00:00:00
9		Come and try Windows 10!	15	2015-04-02 00:00:00	2015-04-30 00:00:00
7	<a href="http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/mcdonaldsP1.jpg">http://res.cloudinary.com/linkreigit/image/upload/v142116122/promotion/mcdonaldsP1.jpg</a>	Justice League is in McDonald now!	33	2015-04-15 00:00:00	2015-04-30 00:00:00
10		This is a promotion	1	2015-04-03 00:00:00	2015-04-30 00:00:00
7		This is a promotion	0	0000-00-00 00:00:00	2015-04-30 23:59:59
9		This is a promotion	0	2015-04-15 00:00:00	2015-04-30 00:00:00
10		This is a promotion	0	2015-04-16 00:00:00	2015-04-30 00:00:00
11		Buy 3 get 1 free	0	2015-04-12 00:00:00	2015-05-01 00:00:00
11		We are celebrating our 20th year in Hong Kong	0	2015-04-13 00:00:00	2015-05-01 00:00:00
12		Welcome to our new store in Lok Fu	0	2015-04-14 00:00:00	2015-05-01 00:00:00
12	<a href="http://res.cloudinary.com/linkreigit/image/upload/v1421159475/mw-w-1410_2014-green-rea-roll_2f46b.jpg">http://res.cloudinary.com/linkreigit/image/upload/v1421159475/mw-w-1410_2014-green-rea-roll_2f46b.jpg</a>	Kumamon Lucky Charms are now in OK!	0	2015-04-15 00:00:00	2015-05-01 00:00:00
13		Welcome to our new business centre in Lok Fu	0	2015-04-16 00:00:00	2015-05-01 00:00:00
15		10% off for takeaway order and \$20 coupon upon \$300 purchase with Hong Kong Credit Cards	0	2015-04-15 00:00:00	2015-05-01 00:00:00
15		10% off for takeaway order, \$20 coupon upon \$300 purchase and 10% off for Lok Fu Card users with Hong Kong Credit Cards	0	2015-04-14 00:00:00	2015-05-01 00:00:00
15		Buy 3 get 1 free tea set with American Express	0	2015-04-13 00:00:00	2015-05-01 00:00:00
18		Welcome to our new store in Lok Fu	0	2015-04-12 00:00:00	2015-05-01 00:00:00
19	<a href="http://res.cloudinary.com/linkreigit/image/upload/v142115125/mw-w-1410_2014-green-rea-roll_2f46b.jpg">http://res.cloudinary.com/linkreigit/image/upload/v142115125/mw-w-1410_2014-green-rea-roll_2f46b.jpg</a>	New green tea cake this week	0	2015-04-12 00:00:00	2015-05-01 00:00:00
19	<a href="http://res.cloudinary.com/linkreigit/image/upload/v142115148/mw-w-1410_2014-green-rea-roll_2f46b.jpg">http://res.cloudinary.com/linkreigit/image/upload/v142115148/mw-w-1410_2014-green-rea-roll_2f46b.jpg</a>	New chocolate cake this week	0	2015-04-13 00:00:00	2015-05-01 00:00:00

# Features Highlight

## (1) Membership System

To build the loyalty of the app users to the app, membership system is established. Members can bookmark their favorite stores and items. They can even interact with the community and enjoy benefits of getting discounted deals



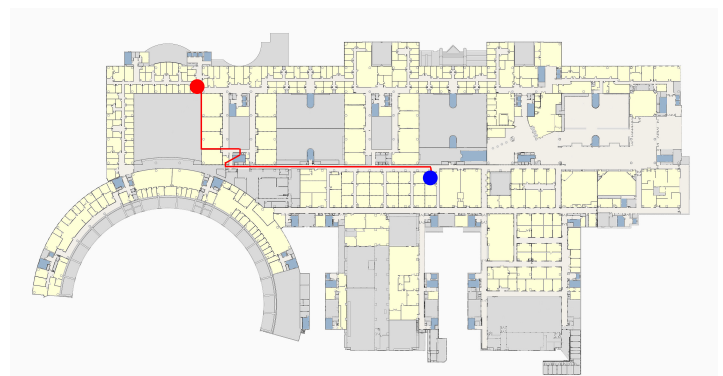
## (2) Sharin'

Users can share their view and experience in Lok Fu Plaza with one another on the platform. Under different Sharin' topics, text messages and images can be shared.



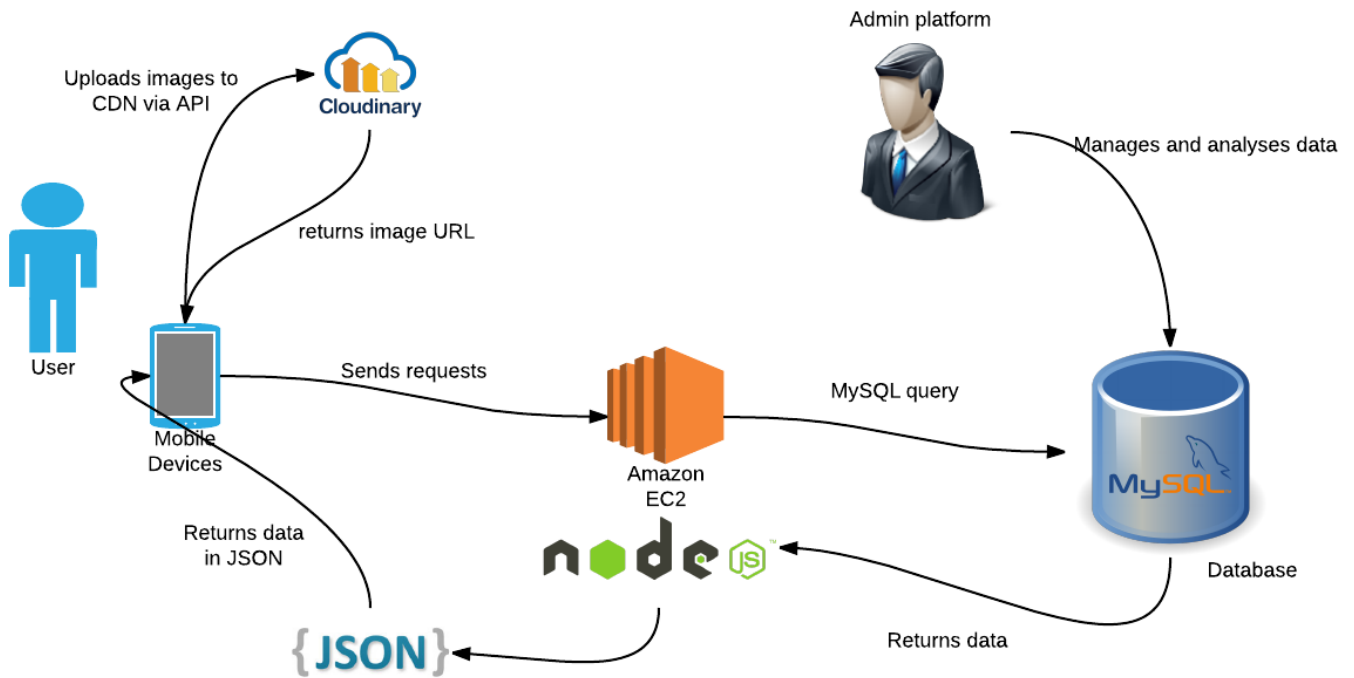
## (3) Indoor Localization

On the map, users can find their current position inside the mall, and follow a suggested shortest path to their destination store.



\*HKUST campus map is used for demonstration purposes

# System Architecture



The server was implemented in Node.js to communicate with the mobile application and the database. The server listens to requests from the app, retrieve data from the database and returns to the user.

## Proudly Powered By



**AngularJS** is a powerful framework that enables MVC design patterns in the app. **Ionic** provides a library of CSS and Javascript functions. **Cordova** provides plugins for the app to access native device features.

**Amazon Web Service** hosted the online server on a cloud instance. **Cloudinary** is the online CDN that hold resources for fast access.



**Node.js** and **Express** created a RESTful API server that can handle concurrent requests from clients. MySQL served as the database to store data

