



HKUST Green Mobile App

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HKUST  Sustainability

The HKUST Sustainability Unit aims to educate and influence the HKUST community to develop a better understanding of issues in four major areas, namely energy conservation, recycling, waste minimization and pollution prevention.

In this project, we took advantage of the increasing popularity of mobile technology and developed the HKUST Green App - a multiplatform mobile phone application for the HKUST Sustainability Unit.

App Features Overview

The following diagram shows the services that this application can provide.



Some existing informative features (e.g. News, Events, Video Channel) in official website green.ust.hk were redesigned to improve user experience on the small screens. The app also includes new interactive elements, such as voting, feedback and virtual green tour.

System Software Design

To build a cross-platform mobile application with native device functionalities like a camera, we decided to develop a mobile website supplemented with a back-end layer (PhoneGap), bridging operating systems of different mobiles iOS, Android, Blackberry and Windows 8.

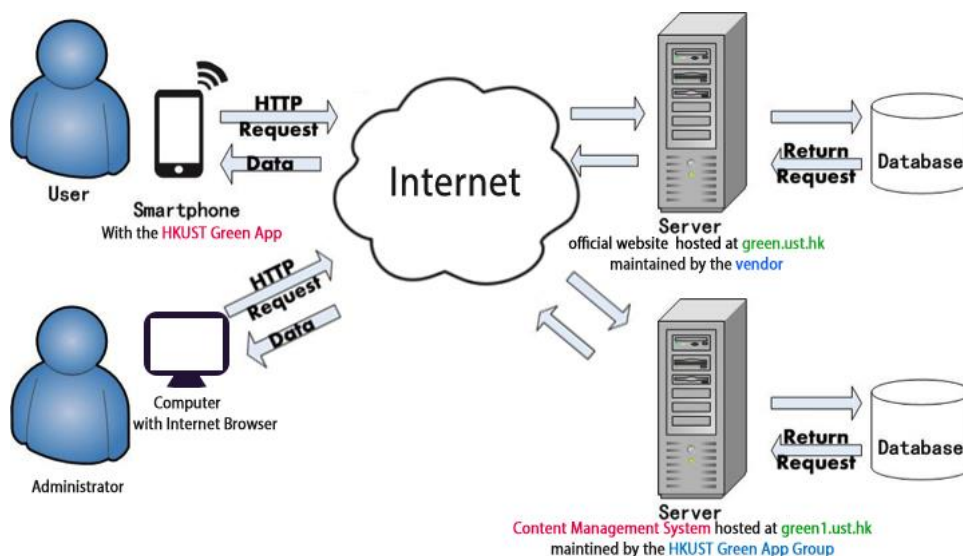


jQuery is a client-side JavaScript library, while **Intel's App framework** is a mobile framework designed to simplify and enhance the development of mobile web applications. It supports a lightweight Model View Controller(MVC) and other UI components.

PhoneGap is an open source framework for quickly building device-neutral mobile applications. It is an interface enabling web technology (supporting HTML, CSS, JavaScript) to work with native device features like a camera, geo-location and an accelerometer.

App Content Management System (CMS)

To enhance the scalability and error tolerance, HKUST Green App CMS is separated from the official website CMS. The user data (e.g. feedback cases, voting answers) is sent to the server green1.ust.hk, which sits the CMS for the green app. The administrator can gain access to the CMS via web browser and export the user data for further use.



Features Highlight:(1)-Feedback

To let students take an active role in stamping down wastage, they can report any cases around the campus through our app. In the report page, users can take a picture of the case and type in the relevant information. The cases will be submitted to the content management system built by us and followed up by the sustainability unit.

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Feedback

If you have any suggestion on building a sustainable HKUST community or want to report a problem on campus, please share it with us.

Step 1: Choose an image (Take Photo / Photo Gallery)
Step 2: *Enter the location and details
Step 3: Enter name, telephone or email
Step 4: Click the submit button

Take Photo **Photo Gallery**

*Location and details...

Name...

Telephone...

Email address...

Old Feedback

green1.ust.hk/green-cgi-bin/Home/ReportHistory.php

Show 10 - 2 entries

| Report ID | Image | Location | Checked | Report Date |
|-----------|-------|----------|---------|---------------------|
| 1 | | room 123 | Yes | 2014-04-16 10:22:53 |
| 2 | | hbt | Yes | 2014-04-17 16:42:13 |

Showing 1 to 2 of 2 entries

First Previous Next Last

Features Highlight:(2)-Vote

Students or guests could cast their vote on discussion of the green issues. In the content management system, the administrator can export the raw survey statistics in excel format or view statistic chart.

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Voting

Choose your talk section:

GREN1XXX

Refresh

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Question

(1) Do you like planting?

Yes

No

Submit

