

Online College Navigation System Through Barcode

Prof. Jyotsna Gabhane

Rishiket Kavitkar, Mayur Warhade, Suchit Durge, Shubham Bahure, Prabhat Dhole

Dept. of Computer Technology, Priyadarshini College Of Engineering, Nagpur, Maharashtra, India

Abstract : *The campus of any college may be very large or it may have many departments/sections. Every time lots of new people visit college campus and they are not aware about the internal structure or design of such college campus. Many new buildings are built and some departments may be relocated inside the college, there are no facilities to find such places like administrative buildings , departments buildings, library, canteen, sports ground and seminar hall etc. In case of college or university campus finding those spaces from current location created difficult to the new comer to reach easily and timely in the desired location, the new visitors also face same problem inside college, moreover there does not exist an efficient system to inform above any event which will happen just few minutes or few hours later in the college with its proper location and shortest path from current location. Now a days , most of the or almost all people use android phone for personal purpose, a global positioning system(GPS) based map application will be most helpful to find desired place and shortest route from recent place and to get informs of events or map with its place thus, it will reduce obstruction and confusion of everyone inside the college. Later the GPS offers extreme coverage and it has been broadly used to deliver the information about college. But the concert of GPS is too poor inside buildings to offer the inside position and for this we similarly use the QR-maps which is used in smartphones to obtain exact locations of different places in college campus. This paper offerings the plan of a QR-map created application and website on android platform and webpage stand and the application has been implemented using android SDK.*

Keywords: PHP, XAMPP, APACHE, HTML, CSS.

1. Introduction :

College and university based navigations are now a days far more than merely devices to communicate based on new techniques like GPS and sensor, area and accelerometer, that can determine the orientation of the device. Location-based applications are matted with better real time views are probable. In the context of this work, College based navigation application enabling the user to find specific locations in an college campus and offers him the possibility to present the college area environment via augmented reality. Many area are held in college and there are many ways to find where a particular places will be conducted so that users can find places in that college through mobile application .we are developing application and online server for mobile user, mobile phones are now a days, far more than merely communication devices. This mobile based system also provides the facility of report about a particular area in the college to the registered user and user who just uses this application can select the starting point area and destination point area after that get the map of that particular area from starting to destination . This system also offers the QR-code to provide user to just scan the QR-code and simply redirect to online server and find the particular building/ground/canteen principal office etc. There are different navigation systems existing in the market which uses Bluetooth, Wi-Fi, AGPS or RFID. Bluetooth requires expensive receivers and the accuracy of Bluetooth navigation depends upon the number of cells used. Wi-Fi also demands costly access points for indoor navigation. AGPS uses network assistance servers for indoor navigation.

2. Literature Survey :

It is a website with QR codes with reading ability that allows the user to readily restrict, navigate, and view the map of building on their smart phones. QR codes are Two-Dimensional codes where data is encoded in optically clear format. QR code will be used all through the building to carry info required for the navigation system. The navigation application in mobile uses the camera to read QR code. The location details from the QR code is used to offer the user his/her current location. The college navigation system is based on the application of QR-code and Online server access points found abundantly in smartphones and buildings. QR-code based navigation system has least complexity. Thus, the methodology is partitioned into six steps: buildings map design, administrative buildings , departments buildings, library, canteen and feedback display. Wi-Fi has been upgraded in terms of decreasing the power consumption and the difficulty of design while maintaining the accuracy and speed of the system. designing of the college campus map guidance system via the use of google map on an college campus environment. It is a website for mobile user and windows platform users with QR codes. NFC technology is used to find the shortest path to the particular destination and QR codes. QR codes are distributed with known and readily-accessible positions within the buildings, college campus and the users of the system can then scan these codes to their current location and subsequently able to access the different navigation features inside the college campus.

3. Objectives :

There are several profitable navigation website such as Google maps, Yahoo maps and Map quest that provide user with direction from one place to another place. However, this applications can search only the college campus, but they are not able to provide routes that on-campus path would require. A campus has multiple buildings in its infrastructure. The persons who come to the campus for the first time have a solid time to orientate themselves and find localities. Even if there are charts at some points on the campus, user cannot get to their destination. The main aim of this project to find the accurate navigation inside a college campus building using QR code which is a very easy process. The system will provide quick and easy navigation as it is using QR code. The college navigation will be very accurate using QR code.

4. Tools and Technology :

4.1 PHP :

PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side. PHP is well suited for web development. PHP stands for Hypertext Pre-processors. PHP is an interpreted language, i.e., there is no need for compilation. PHP is more rapidly than other scripting languages, for example, ASP and JSP. PHP is a server-side scripting language, which is used to manage the dynamic content of the website. PHP can be embedded into HTML. PHP is an object-oriented language. PHP is an open-source scripting language..

4.2 My Sql :

MySQL is currently the most general database management system software used for dealing the relational database. It is open-source database software, which is maintained by Oracle Company. It is commonly used in conjunction with php scripts for creating powerful and dynamic server-side or web-based enterprise applications.

4.3 Sublime Text Editor 3 :

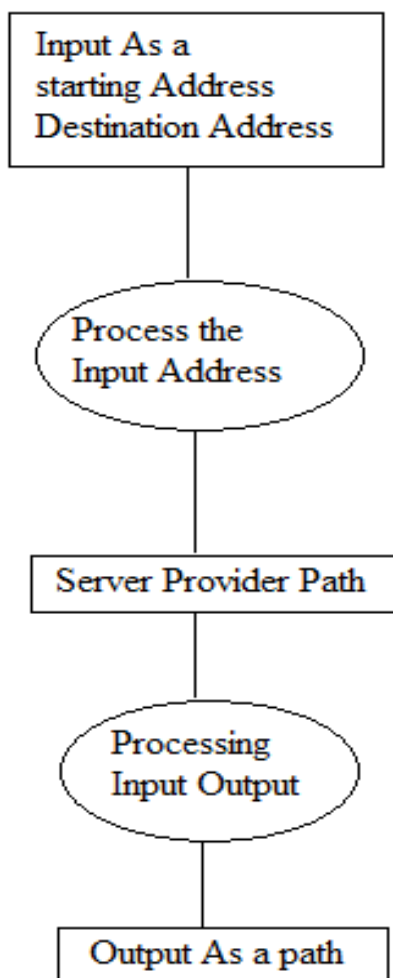
Sublime Text 3 (ST3) is a lightweight, cross-platform code editor known for its speed, ease of use, and strong community support. It's an incredible editor right out of the box, but the real power comes from the ability to cross-platform code editor known for its speed, ease of use, and strong community support. It's an incredible editor right out of the box, but the real power comes from the ability to enhance its functionality using Package Control and creating custom settings.

4.4 Apache :

Apache is the most widely used web server software. Developed and maintained by Apache Software Foundation, Apache is an open source software available for free. It runs on 67% of all webservers in the world. It is fast, reliable, and secure. It can be highly customized to meet the needs of many different environments by using extensions and modules. Most WordPress hosting providers use Apache as their web server software. However, WordPress can run on other web server software as well.

5. Activity Diagram :

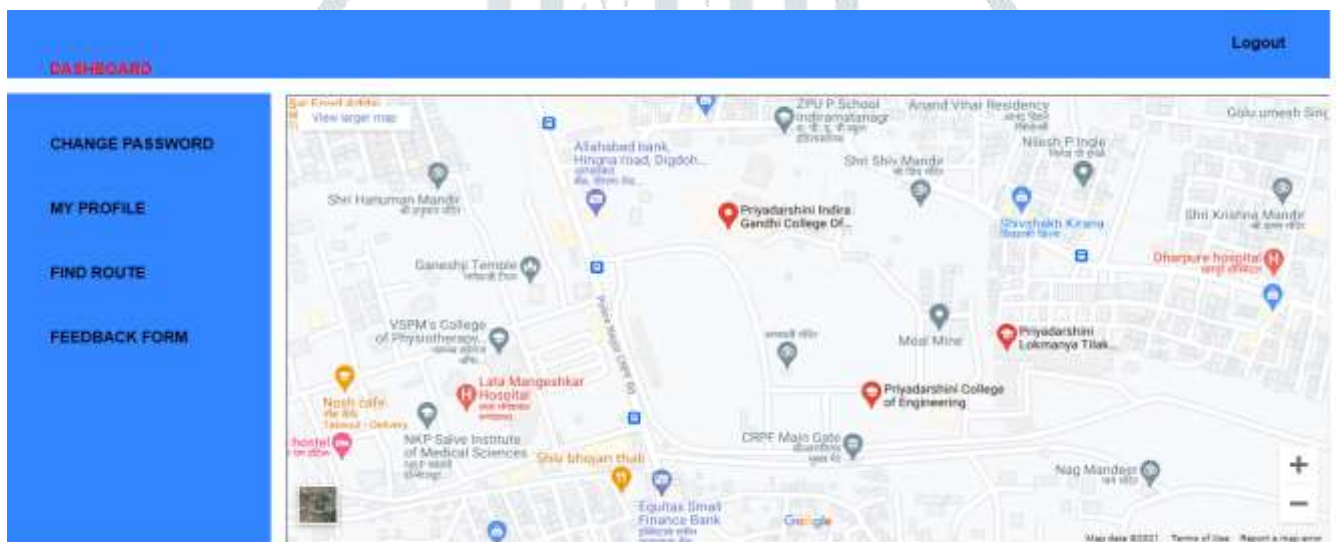
5.1 Data Flow Diagram :



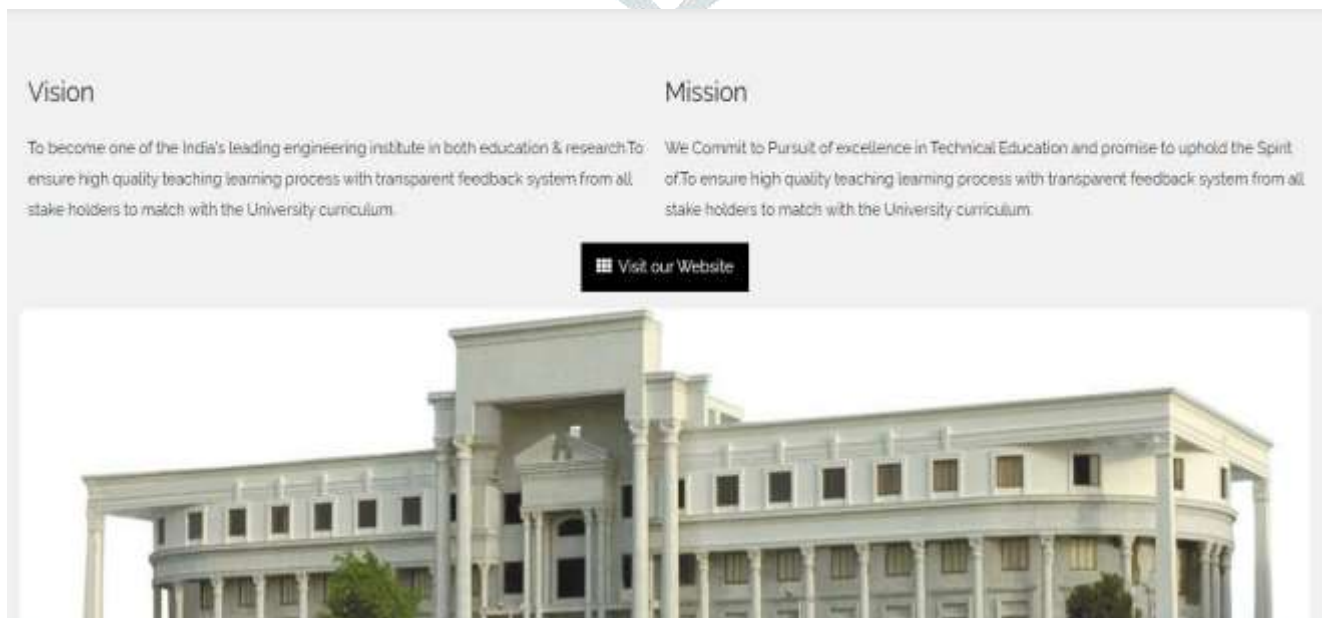
5.2 Index Page :



5.3 Dashboard Page :



5.4 Vision and Mission page



6. Advantages and Applications :

6.1 Advantages :

- Helps Peopleor Student Find Your Destination with in the Campus.
- See inside campus.
- It also helps the outside person who came first time in campus.
- Student can find the Departments of college.
- Also find the Buildings floor info.

6.2 Applications :

It is applicable in College campus for getting the Information from one place to another place.

7. Conclusion and Future Scope :

In current years with the help of Google maps ,location searching became a new inclination when people are not alert of their location. Google map offers lots of functionality like showing any location , track from any location to other location and evaluate the time to reach the location. The online server application based campus navigation system with QR code is very much required in a dynamic atmosphere where many things are not under human control. This system satisfies the need of various participants involved in the process. It provide the information of an location within the college campus and gives shortest path guide for participants from his/her current location to desired place. System minimizes the frustration and confusion of people inside college campus. The QR code added to the system allows intended users to scan a code and get necessary information about internal Structure of building within the Priyadarshini main campus.

8. References :

- <https://www.google.com>
- “Android draw route between two geo location MapV2,” android-draw-route-between-two- geo.html(Accessed March, 2014)
- <https://www.youtube.com>
- <https://en.wikipedia.org/html>
- <https://en.wikipedia.org/xampp>