

Student ID card Barcode Recognition for Android Mobile Phone User Manual



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Introduction

This user manual will provide the system requirement, system usage and a step by step setup instruction for both client and web server.

Our Mobile Barcode Recognition(MBR) will be constructed by two parts generally. One is the client on Android mobile phone, and the other one is the web server which provides entry for dummy student database.

If you are a MBR mobile client application user, you will be happy to find only setups for client useful and interesting. While if you are about to construct the web server for dummy student database, you will find it useful to look at setups for both web server and client.

System Requirements

Client

- **Hardware:** GPhone(G1 Magic)
- **Software:** Apps Installer
- **Operating System:** Android 1.6
- **Network connecting**

Web Server

- **Hardware:** PC
- **Operating System:** Windows XP/2000/2003/VISTA
- **Web Server:** Tomcat 6
- **Database:** MySQL
- **Network connecting**

Installation Instructions

The web server provides database retrieve service. If you are a mobile end user, you will not be worried about how to dispose the server, nor concern at the instruction about web server below.

However, if you are a system administrator, instruction for web server will be helpful in disposing the web server.

Web Server

We suggest one of the simplest methods to dispose a web server that using MyEclipse. MyEclipse is an integrated development environment for many programming languages (such as Java). It makes easier in both project developing and server disposing. So here we suggest using MyEclipse to dispose our web server.

1. We need to download MyEclipse first. (skip this step if have already had one)
 - a) Go to <http://www.myeclipseide.com>
 - b) Download MyEclipse 8.5 All in One
 - c) Install it
2. Run MyEclipse 8.5, import StudentServer(our web server) project
3. Run the server as MyEclipse Server Application
4. Ok, keep it running and providing service for client

Client

GPhone does not allow storing data into phone memory without sd card and it doesn't have its own application installer software in the phone, so in order to install our application we need both sd card and an application installer software prepared beforehand.(I know it sounds a bit ridiculous, but it's the way it is, at least for G1 Magic).

Prepare:

- A usb connector, for allocating MBR.apk onto your mobile.
(or if you have your computer with a sd card reader, you may follow the 2nd method to allocate MBR.apk onto your mobile)
 - Internet connecting for your GPhone, for downloading Application installer from Market
1. Allocate MBR application package(.apk) file onto mobile
(In this way we can install local applications, instead of downloading them from Market. And actually it does need some requirements to publish own applications onto the Market which I didn't get the permission to do yet)

There are two ways to put our application package file onto the mobile sd card

Method 1:

- a) Connect mobile and computer via usb connector
- b) Mount the mobile sd card(by pull down the notification menu, click "usb connected" and press "mount")
- c) Copy MBR.apk file onto sd card
- d) Turn off usb connection(similar to step b above)

Method 2:

- a) Insert sd card into computer sd card reader
 - b) Copy MBR.apk file onto sd card
 - c) Take off sd card from the sd card reader, and insert it into mobile phone
2. Download Apps Installer, in order to install MBR application on mobile
- a) Connect to Internet
 - b) Open "Market"
 - c) Search "AppsInstaller", download and install it
 - d) Open Apps Installer, it will scan the available apps on sd card
 - e) Find MBR and click it, and install it by following the instruction
3. OK, run it!

System Usage

Recognize student id

- Once run MBR client application, a scanning frame will first present to user. Place barcode area of a student card inside the scanning frame and hold it for few second(just a little hint: make sure not move your hand heavily while scanning)

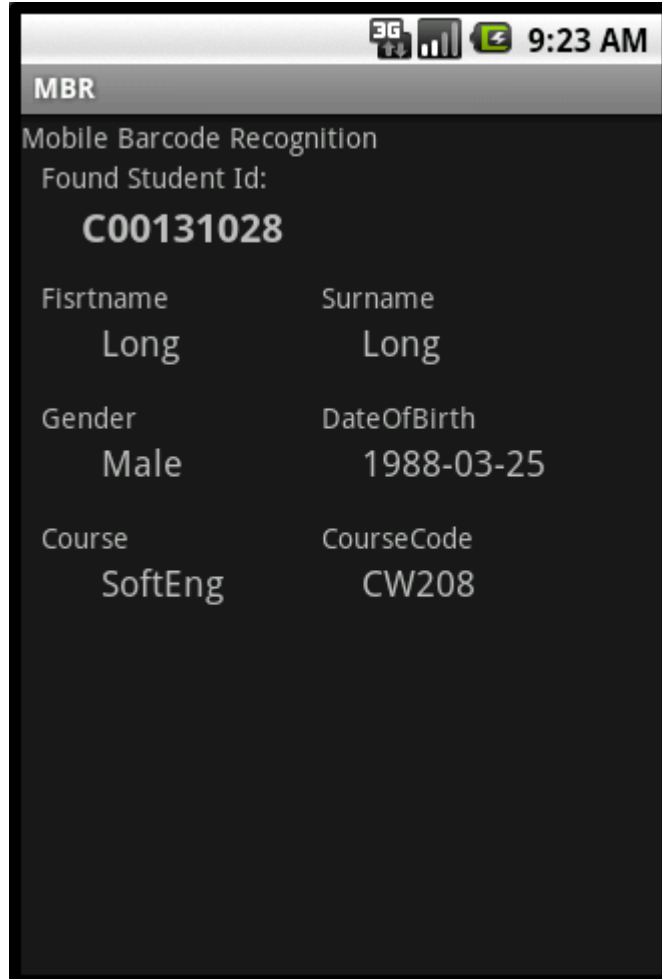


- If the barcode is readable by MBR, a result will then present to users.

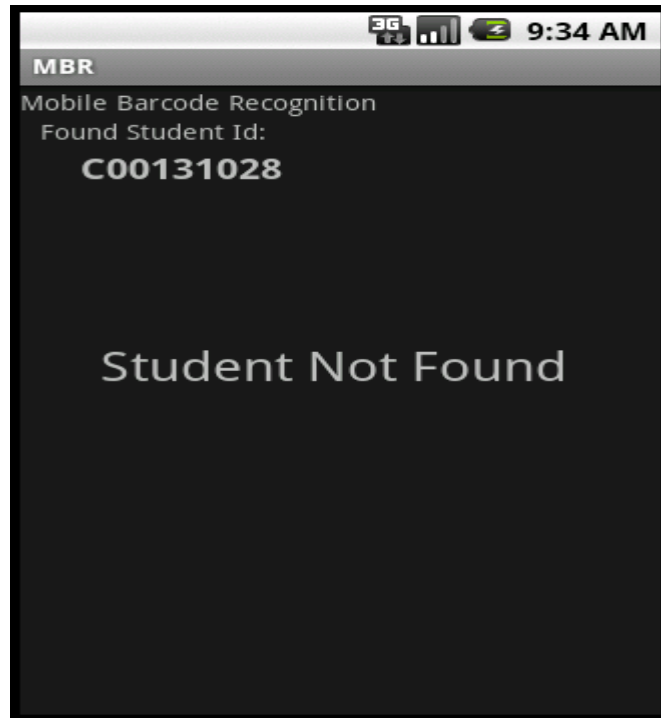
The screenshot displays a mobile application interface with a dark background. At the top, a status bar shows '3G', signal strength, battery, and the time '5:11 PM'. Below this is a grey header with the text 'MBR'. The main content area shows 'Mobile Barcode Recognition' and 'Found Student Id: C00131028'. There are two input fields: 'User name:' with a white box and an orange border, and 'Password' with a white box. A 'Get Detail' button is located at the bottom.

Retrieve student details via internet

- Type in your user name and password then press “Get Detail”, MBR will connect to web server and retrieve the student details relative to the recognized student id. Once retrieve succeeds, details will display on screen.



- If login succeed, but do not find student detail in database, it will show a “student not found” message on the screen.



- But if it failed in login, an “login fail” message will present on screen instead of the details.

