



lyteMobile 2.6

User Guide

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Overview

lyteMobile is midlet to create and run database applications on mobile phones. It contains a built in Table designer and a Application designer. lyteMobile comes with a gallery of bundled of applications to start with and there is no limit on the number of applications that can be build using lyteMobile.

More sophisticated mobile applications can be created using LyteRAD Pro on the desktop and then installed on the phone.

lyteMobile runs on any J2ME enabled phone(CLDC 1.1 and MIDP 2.0, thawte root certificate) with storage facility like memory cards or in-phone memory. lyteMobile does not need GPRS connectivity, as it contains a lightweight embedded database for storage.

GPRS is needed only to synchronize data between desktop applications and to access the online app gallery.

Installation

lyteMobile is signed with [thawte](#) code signing certificate for security. This makes lyteMobile tamper proof and authenticates its vendor as LyteCube Technologies. The phone should have thawte root certificate for lyteMobile to work correctly. Please refer the phone documentation regarding the certificates supported.

The lyteMobile midlet consists of two files that need to be copied to your phones application folder and then invoke the install action. lyteMobile.jar is the java archive that contains the platform environment and lyteMobile.jad is the application descriptor file that is needed during installation.

lyteMobile can be installed like any other java application on your phone, please refer to your phone documentation for specific installation instructions. You may also refer to the generic install instructions that are distributed with lyteMobile as install.txt.

Phone Requirements

- Platform: Java (J2ME)
- CLDC version: 1.1, or higher
- MIDP version: 2.0, or higher
- JSR: JSR-75 (File system Access)

- Root Certificate: Thawte

Configuration(Read/Write Permissions)

lyteMobile uses an embedded database to store information in the phone memory. This requires frequent read write access to the file system.

If your phone is configured to disallow any read write operations, you will have to change the security settings (permissions) of lyteMobile(midlet) to allow read and write access to files. If you do not grant these permissions, you will always be prompted for permissions on every access.

Refer to your phone documentation to grant Read/Write permissions(allow always) to a java application (midlet).

Launching lyteMobile

lyteMobile will be installed as a java application on your phone. You can launch lyteMobile by going to your phones Applications menu and selecting lyteMobile. Please ensure you have granted permissions to lyteMobile for file system(recommended) & network access(to access online store).

Settings

Password

You can secure lyteMobile by setting a password. The 'Settings' in the menu of the home screen has an option to set and reset the password.

The password can be any combination of alphabets and numbers as the password. (The password is stored as a Md5 hash for your privacy)

Lost password?

Contact us at support@lytecube.com

Default Directory

By default all the application files and tables are stored in the write accessible root location(either in the phone memory or the expandable memory) in a directory by name 'lyteMobile'. This can be changed using the settings menu in the lyteMobile home screen.

Default App

You can set the application that starts automatically at the start of lyteMobile. If a default application is specified, the 'HomeScreen' of the application appears at the start of lyteMobile and the back button will take you to lyteMobile 'HomeScreen'.

lyteMobile Application Stores

Bundled Applications(Local Store)

lyteMobile comes with a host of ready to use applications and you can install these applications by accessing the local store from the 'Store' menu. This does not need Internet connectivity. For a list of applications available in this release of lyteMobile visit <http://lytecube.com/lytemobile>.

The application will now be accessible from the lyteMobile home screen.

Online Store

The store is a gallery of ready to use applications that can be downloaded to your phone. To access the store, you will need GPRS connectivity. Select the online store from the main menu, and you will see a list of applications that are available for download. This is an active dynamic list of applications which would be growing over time.

You can get detailed information about the application by pressing the 'select/fire' soft key on the application. You can install an application by selecting the 'install' soft key. lyteMobile will download the application from the store and install it automatically.

The application will now be accessible from the lyteMobile home screen.

Publishing Applications to Store(Share)

Now you can share an application with other lyteMobile users. Select an application you would like to share, on the applications screen, and select the 'Share' option in the 'Menu'. This will prompt to enter the details of the application that is being shared, once entered the application is uploaded to the online store and will be accessible to all the users of lyteMobile.

Note: This is a new feature and subject to change please go through the terms and conditions before uploading the application to the store.

How to Build Mobile Applications using lyteMobile?

Building your own applications using lyteMobile is very fast and easy. The 'Applications' menu in the home screen will take you to the applications manager screen. Here is the list of all the applications available in lyteMobile and the applications can be modified, deleted or shared with other lyteMobile users.

Prerequisite

For building an application on lyteMobile you need to design two things.

1. What are the tables your application will be having?
2. What are the operations(widgets) you want on these tables?

For Eg: If you want to build an application for your home library then the tables would be

- a. *Books* with the fields *ISBN, Title, Author, Genre ..*
- b. *Genre* with the field *genretype*

And the operations you would do on these tables would be

1. Browse *Books, Genre* Tables
2. Add records to *Books and Genre* Tables
3. View *Books* table grouped on *Genre*

Do not worry even if you do not get right the first time, there is no limit on the number of applications you can build with lyteMobile. So go ahead build your ***Killer Application*** now.

Building the Application

1. Select the 'New' menu in the applications management screen this will prompt for application name.
2. After entering the application name a screen with a list of widgets is presented choose the widget(each widget is an operation on a table) you want to add to your application.

The 'Tables' menu here will take you to the table manager to create the tables in your application. Check 'TableManager' section for more details.

3. Choose a widget and the table on which the widget will operate on. If you have not created any table this will prompt to create a table. Check the 'ApplicationDesigner' section for more details.

Add as many widgets you want in your application and 'Save' the application. This application is ready for your use on the lyteMobile home screen.

Table Manager

The table manager lists all the table in a application. Here you can add/delete tables for your application. Add a new table is simple with lyteMobile..

Table Designer(Create New Tables)

The Table designer allows you to create tables on the mobile itself. Tables form the fundamental structure to store data. Each table consist of rows and columns, where a column can store only one specific data type like text or numbers. Creating Tables Create new tables by specifying a name for a table and defining what data types will be stored in each column. One of the columns will also be used as a key column to uniquely identify a record/row. The key column should always contain unique values.

Table Properties

The table properties are again just like the columns of the table but there will be only one properties for the entire table.

For eg: for the *Books* table in a library application the properties can be *totalbookcount, numberofshelves* which are the properties of the table rather than the entries.

Properties to a table can be added using the 'Add Properties' menu.

Template Tables

A table can be made a template table just by selecting the 'Make this a template' option. A template table can also have properties and each instance of the template table will have its own properties. The template table properties are again just like the columns of the table but there will be only one properties for the entire table.

Template tables enable better data encapsulation. Refer to the template manager widgets in the Application Designer section for using template tables in the applications.

For eg: If you want track different bank account transactions, you will create “Bank”

template table and for each bank account you create a new table using the template table that holds the transactions of that particular bank. This bank template table has a fixed one set of properties say the bank name, bank address, account no, creation date and the usual table columns to hold the multiple transactions of that table.

Delete Table

Any table can be permanently deleted using the 'Delete Table' menu in the table designer screen and choosing the table. Exercise caution while deleting tables as the data is permanently lost and the Application using the table will not function properly.

Application Manager

The application manager lets you create, edit and delete applications.

Application Designer(Create New Applications)

The Application Designer allows you to create applications on the mobile phone itself. You can access the application designer from lyteMobile's main menu. An application is a group of widgets to interact with a tables.

Widgets

After you name your application, you will have to select a bunch of widgets to add to your application, each widget provides a specific functionality. If you want to be able to browse data in the table, select the browse widget. If you want to the ability to add records, select the add records widget and so on. Also select the parameters for the widget. All the widgets added to the application are displayed on the application designer screen. On successful creation, the new application will be listed in the home screen and you will be able to launch it.

Group Widgets

The different widgets in a application can be grouped together into a single widget This grouped widget be used to encapsulate a application menu without clutter with a drill down functionality.

Adding Summary to applications(Reports)

You can add a report(sum) to your application to your application by choosing the columns to appear in the report and the columns for which sum should be calculated. This 'Reports' will be accessible from the 'Browse' screen of the table for which the report is added.

Delete Application

Any application can be permanently deleted using the 'Delete ' menu in the App Manager screen and choosing the Application. Exercise Caution while deleting the applications, as the data will also be deleted along with the application.

Applications De Mystified

Launching Applications

On starting lyteMobile, you will be shown a list of Applications that are installed and available for use. Select one of them using the navigational keys of your phone and press the Select/Fire key of the phone to start the Application.

Application Start Screen

On launching an application you will see a list of actions you can perform using this application, like adding records or browsing through tables, synchronizing data and so on. You can select an action by using the up and down navigational keys of your phone.

Navigation

The 'left' navigation key will take to the previous screen and 'select/fire' key will perform action on the item from any data view screen such as data browser, grouped column viewer etc. On the data entry screens such as table/application designer, add/edit record screens explicit menu has to be chosen for action.

The Data Browser View

The Data Browser action will bring up a table view of information with each column corresponding to a field in the table schema. You can scroll up and down through records using the navigational keys of your phone, and you can also scroll right to view columns that do not fit into one screen. And you can drill down into records details by selecting a row and pressing the 'select/fire' button on your phone.

Data Export

All the table data can be exported to a text file. In the data browser view select the 'Export' menu and provide a file name. All the table data will be exported to a text file. This can be sent across from the phone itself, through mms/bluetooth/email if the phone supports file system browsing capabilities.

The Detailed View

To view details of any record, go to the data browser view and select a row. You can now press the 'select/fire' button on your phone to launch detail view. This view also allows you to scroll vertically if the amount of information is more than one screen. You can move out of the detail view by navigating 'left'.

Editing Record

Open the record in the detail view as mentioned above and press the 'select/fire' key, this will open up the record for editing. All the fields of the record can be changed except the primary key value.

SMS Details

You will also be able to send the detail view of the record to a SMS recipient.

Deleting a record

Locate the record you want to delete in the data browser and open the detail view of the record by pressing the 'select/fire' button. You can now delete the record by clicking on delete.

Searching for a Record

The data browser view also allows you to find records of interest by specifying the search criterion. Go to the data browser view and select the 'search' soft key to open the search window. The search window contains a list of column names that you will have to select as the column of interest and specify a matching criterion for that column.

The search criterion will use a wild card search by default and does not need any extra parameters. Clearing a search criterion: To clear the search parameters, you will have to navigate out of the data browser by pressing 'left' and then re-opening the data browser view.

Adding Records

If the Applications contains a widget to add records, you will be able to add a new record by selecting it and pressing the 'select/fire' button. The data form will contain fields to enter information. Fields which are links to other tables will contain a drop down menu of available choices. Press the 'Ok' button to save the record and return to the Application main menu.

Adding values to linked fields: Linked fields are pre populated with values from the referenced table, so you will have to add a record to the referenced table first, before you can see a new value in the drop down menu.

Template Manager

The template manager is used for managing the template tables(refer to the table designer section for more details on the template table). Pressing the 'select/fire' button on a template manger widget will launch the table browser screen which will list all the instances of that template. Pressing the 'select/fire' key will launch that table specific menu. This will contain the Add,Browse and any other that are added in the Application designer for the template table.

Chart View

The chart viewer will accept a column name and will display the pie chart of the data in that column.

Calendar View

The date field data of a table column are displayed in a calendar view.

Grouped Column View

The table data can be browsed grouped on column values.