

# U-Menu

## VISION

U-MENU is a menu making application for the Android pads that allows users to create, customize, and manage simple or complex menus through a friendly user interface. Designed with restaurant menus in mind, users can easily populate a menu system with desired entries. Users can attach images and specific details to each menu entry. Preset theme elements can be applied to the menus for a customized.

When the menus are executed in action, the customers can select an entry in the menu and have it display images and specific details. The menu items can be filtered, or sorted base on values defined in the menu managing process. Additional features inspired by restaurant scenario include automatic pricing upon selection, commenting feature, and orders delivered wirelessly to the kitchen upon confirmation from waiter/waitresses.

The targeted customers/users of this software system are the restaurant managers (or someone hired just to manage the menu software), waiter/waitresses, restaurant customers, and other possible candidates who might view the menus/orders placed (chefs).

## SOFTWARE ARCHITECTURE

The developing environment will be tied to the Android system, meaning the programming languages associated will be mainly Java with possible inclusion of C/C++. Android is free to use for development and the object-oriented language Java will be a suitable language for many desired features.

Menu data can be managed with SQLite, which is the database management system for the Android system.

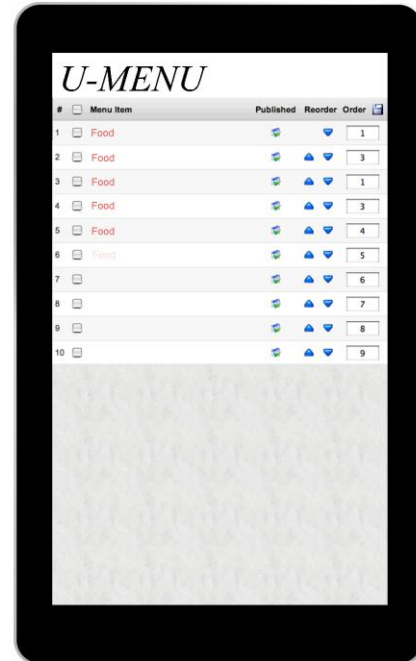
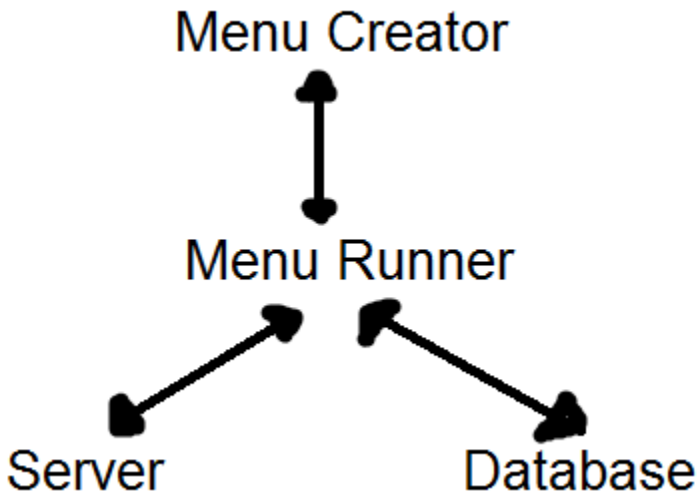
The project is definitely feasible for a 9 week group project.

Here is a list of requirements that are reasonable for 9 weeks with 5 people

- \*Application that creates and populates a menu with custom entries
- \*Sorting and Filtering Function
- \*Menu entries display specific details
- \*Menu entries display images
- \*Calculate the total price of a given order automatically

Some more advanced features

- \*Theme support
- \*Network/Server support (more generalized management, possibly for chain-restaurants)
- \*Wireless features



### CHALLENGES AND RISKS

The biggest issue that rises is the idea of writing 2 applications to accomplish the desired system/package. From the point of view of both the developers and the users, it seems reasonable to have an application that creates customized menus while another application runs these customized menus. This idea also suits well with developing modules and have different functions separate from each other, ties with object-oriented programming which is the developing environment of Android/Java.

Smaller issues include security and networking problems involved with more powerful features of the application. Firmware support issue may rise due to the Android system being upgraded on an irregular basis.