Project Description

Project 1. Voice Mail System

This project is to simulate a telephone voice mail system, similar to the message system that Wuhan University uses.

In a voice mail system, a person dials an extension number and, provided the other party does not pick up the phone, leaves a message. The other party can later retrieve the messages, keep them, or delete them. Real-World systems have a multitude of fancy features: Message can be forwarded to one or more mailboxes; distribution lists can be defined, retained, and edited; and authorized persons can send broadcast messages to all users.

We will design and implement a program that simulates a voice mail system, without creating a completely realistic working phone system. We will simply represent voice mail by text that is entered through the keyboard. We need to simulate the three distinct input events that occur in a real telephone system: speaking, pushing a button on telephone touchpad, and hanging up the telephone. We use the following convention for input: An input line consisting of a single character 1....9 or # denotes a pressed button on the telephone touchpad. For example, to dial extension 13, you enter
1
3
#

An input line consisting of the single letter H denotes hanging up the telephone. Any other text denotes voice input.

Your system should provide the following functions at least:
1) Reach an extension
2) Leave a message
3) Log in
4) Retrieve message
5) Change the Greeting
6) Change the Passcode

Project 2: Room Management Appliance System

A system for managing shared office, meeting, laboratory, and teaching space is to be developed. A networked display appliance is situated outside each room. The appliance indicates who has reserved the space and for what period. The appliance allows users to reserve a room and check the availability of other rooms.

The system is a web based scheduling system but the status of each room can be checked at location. It incorporates the use of small flat panel displays to eliminate scheduling

conflicts, interruptions, and encourage better space utilization.

The system can:
· Reserve the appropriate room when needed from any location on the network
· Display meeting information outside each room
· Easily extend room reservation with the touch screen
· Release a room if meeting finishes early
· Quickly identify occupied and available rooms by a red or green light
· Grab a room with the touch screen for an uninterrupted impromptu meeting

Web interface
All the room displays are networked so then can be accessed via a web interface (a single URL). Every room's schedule can then be viewed from the web interface and maintained by an administrator. A user should be able to check the availability of any room from the room display and the web interface. The web interface allows for reserving rooms along with searching tools to find available rooms at given times. All significant management of the building's space information will be done through this interface.

Project 3: Employment Application Review System

EARS is an intranet-based Employment Application Review System for the International School of Software. The system is designed so that school faculty members can review applicants and collaborate asynchronously in order to find the best applicant for a given job opening. This system reduces the overhead of the process and lightens the workload for the search chairperson.

The scope of this project will be to provide a system that allows to:

1. log-in EARS system
2. manage system users (add new accounts)
3. add a new faculty search (committee chair, members, position, search starting date and ending date, add new committee members)
4. List and review applications (view profile, post comments on applicants, change applicants' statues, perform a faculty review, assign faculty review)
5. set account's settings (email, name, title, password)

Different users might need various functionalities.

Project 4：University Registration system

At the beginning of each semester, students may request a course catalog containing a list of course offerings needed for the semester. Information about each course, such as professor, department, and prerequisites are included to help students make informed decisions.

- The new system will allow students to select four course offerings for the coming semester. In addition, each student will indicate two alternative choices in case a course offering becomes filled or cancelled. No course offering will have more than 10 students of fewer than 3 students. A course offering fewer than 3 students will be cancelled. Once the registration process is completed for a student, the registration system sends information to the billing system so the student can be billed for the semester.
- Professors must be able to access the online system to indicate which courses they will be teaching, and to see which students signed up for their course offerings.

For each semester, there is a period of time that students can change their schedule. Students must be able to access the system during this time to add or drop courses.

Project 5 Address Book

The software to be designed is a program that can be used to maintain an address book. An address book holds a collection of entries, each recording a person's first and last names, address, city, state, zip, and phone number.

It must be possible to add a new person to an address book, to edit existing information about a person (except the person's name), and to delete a person. It must be possible to sort the entries in the address book alphabetically by last name (with ties broken by first name if necessary), or by ZIP code (with ties broken by name if necessary). It must be possible to print out all the entries in the address book in "mailing label" format.

It must be possible to create a new address book, to open a disk file containing an existing address book to close an address book, and to save an address book to a disk file, using standard New, Open, Close, Save and Save As ... File menu options. The program's File menu will also have a Quit option to allow closing all open address books and terminating the program.

The initial requirements call for the program to only be able to work with a single address book at a time; therefore, if the user chooses the New or Open menu option, any current address book will be closed before creating/opening a new one. A later extension might allow for multiple address books to be open, each with its own window which can be closed separately, with closing the last open window resulting in terminating the program. In this case, New and Open will result in creating a new window, without affecting the current window.

The program will keep track of whether any changes have been made to an address book since it was last saved, and will offer the user the opportunity to save changes when an address book is closed either explicitly or as a result of choosing to create/open another or to quit the program.

The program will keep track of the file that the current address book was read from or most recently saved to, will display the file's name as the title of the main window, and will use that file when executing the Save option. When a New address book is initially

created, its window will be titled "Untitled", and a Save operation will be converted to Save As ... - i.e. the user will be required to specify a file.