Web Based Appointment Management System

Software Requirements Document

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1. Introduction

This Web Based Appointment Management System (WBAMS) is a web based application that contains two separate interfaces for the client and the administrator. On the client side, it allows a user (patient) to schedule an appointment to consult the doctor. This application prompts the user to choose the date and time to meet the doctor. Also, the user is required to input name, address, phone number, and purpose of visit to the system in order to make an appointment. On the administrator side, the application requires the administrator (doctor/nurse) to log in to the system, and then it allows the administrator to edit, change, and delete the appointment according to the doctors' refined schedule. This Software Requirements Document (SRD) outlines each feature, in detail, that you have requested.

2. System-Related Requirements

2.1. The following sections describe the system requirements of the three primary computers involved in the execution of the WBAMS. The first and second computers described are the local computers, the machine the user will be sitting in front of and interacting with. The third computer described is the server on which the application will actually reside.

## 2.2.	Client side requirements

2.2.1.Web Browser (i.e. Internet Explorer, Mozilla Firefox or Google Chrome) 5.0 or higher.

2.2.2.Internet Service Provider.

2.2.3.Modem or Network Interface Card.

## 2.3.	Administrator side requirements

2.3.1.Web Browser (i.e. Internet Explorer, Mozilla Firefox or Google Chrome) 5.0 or higher.

2.3.2.Internet Service Provider.

2.3.3.Modem or Network Interface Card.

2.3.4.System account and password.

## 2.4.	Server side requirements

2.4.1.Accessible by the client and administrator via internet using the interface provided.

2.4.2.Supports PHP scripts to be run on the server.

2.4.3.Allows the user to store data locally and update on the web.

2.4.4.Must have Common Gateway Interface (CGI) support available.

3. Software Requirements

In the following sections, the Web Based Appointment Management System will be described as a series of two interfaces.

3.1   Client interface

3.2   Administrator interface

3.1. Client interface

3.1.1. When the client first accesses the application website, the client can schedule an appointment by selecting on the calendar interface

3.1.2. Picking the appointment date

3.1.2.1. The client chooses the appointment date by click on the calendar day as shown in Figure A below.

3.1.2.2. Calendar interface requirement

3.1.2.2.1. The calendar interface contains monthly calendar showing the year, month, and day.

3.1.2.2.2. The client can only choose from Monday through Friday because the doctor only works Monday through Friday.

Dr. Fred's Appointment Calendar

Select New Appointment Date

wk	Mo	Tu	We	Th	Fr	Sa	Su
18	30	1	2	3	4	5	6
19	7	8	9	10	11	12	13
20	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27
22	28	29	30	31	1	2	3
23	4	5	6	7	8	9	10

May 2012

Today   10 ↕ 35 ↕ am

Select Day for your Appointment

Figure A

3.1.3. Selecting the appointment time

3.1.3.1.   Once the client has selected the appointment date, the web will prompt to a new screen for selecting the time, entering personal information, and submitting new Appointment as shown in Figure B below.

Dr. Fred's Appointment Calendar

**Select New Appointment Time
for Tuesday, August 10, 2012**

	Tue
8- 9	X
9-10	X
10-11	○
12- 1	○
1- 2	○
2- 3	X
3- 4	○
4- 5	X

Select an available appointment time above

Select Different Appointment Day

Name:	
Address:	
City/State:	ZipCode:
Phone:	Email:
Purpose of Visit?	
☐ New Patient?	

Submit new Appointment

Figure B

3.1.3.2.   The time interface shows the date the client have selected.

3.1.3.3.   The client can select the available appointment time by clicking on the *radio button*.

3.1.3.4.   The client can select a different date for appointment by clicking on the *Select Different Appointment Day button*.

3.1.3.5.   Time selection requirement

3.1.3.5.1.   There will be eight appointments slots per day from Monday through Friday.

3.1.3.5.2.   Each appointment should be one hour long from 8 am to 5 pm.

3.1.3.5.3.   The time interface shows the available appointment time by *radio button*.

3.1.3.5.4.   The time interface shows the unavailable time in X.

3.1.3.6. Personal information input requirement

3.1.3.6.1.   The personal information input interface contains:

3.1.3.6.2.   Seven single-lined fields for the client to enter – Name, Address, City/State, ZipCode, Phone, Email and Purpose of visit

3.1.3.6.3.   All single-lined fields are required for the user to input information except the Email field.

3.1.3.6.4.   Name, Address, City/State, Phone, Email and Purpose of visit should only contains characters ('A' – 'Z', 'a' – 'z', ' ', '/', '-', '.', '_', '@') or numbers (0 – 9).

3.1.3.6.5.   Zip code should only contains numbers (0 – 9).

3.1.3.6.6.   One *check box* for New Patient

3.1.4. Submitting the appointment

3.1.4.1.   There is a *Submit new Appointment button* for the client to submit the appointment.

3.1.5. Error handling requirement

3.1.5.1.   If the required field is empty or is not input according to the rules above, it will prompt the error message for individual error.

3.1.5.2.   If one of the seven single-lined fields is empty or input undefined characters, the system will prompt the error message as shown in Figure C below.

> **Name, Address, City/State, Phone, Email and Purpose of visit should only contains characters ('A' – 'Z', 'a' – 'z', ' ', '/', '-', '.', '_', '@') or numbers (0 – 9).**

Figure C

3.1.5.3.   If one of the seven single-lined fields is empty, the system will prompt the error message as shown in Figure D below.

Zip code should only contains numbers (0 – 9).

3.1.5.4.   If there is no error message after clicking the *Submit new Appointment button*, the system will prompt the client to a confirmation page and an e-mail confirmation will be sent to the client if the e-mail address is provided.

3.1.5.5.   The confirmation page shows the **client name**, **date** and **appointment time** as show in Figure E below.

Thank you for making appointment, **Ka Son Chan**.

Your appointment date and time is: **June 20, 2012. 8 am – 9 am.**

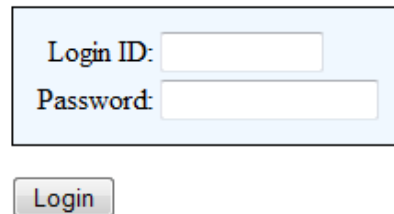A confirmation email has been sent to your email.

3.2.   Administrator side interface

3.2.1.When the administrator accesses the application website, a login page will appear as shown in Figure F below.

Dr. Fred's Appointment Calendar

Administration Login
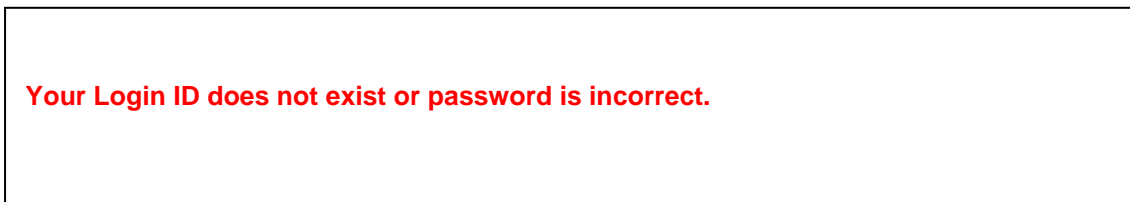
Login ID: [   ]
Password: [   ]

[Login]

3.2.2. Logging in the system

3.2.2.1.   The administrator is required to input the **Login ID** and **Password** to log in.

3.2.2.2.   After entering the correct **Login ID** and **Password**, the administrator can press *"Enter"* or click on the *Login button* to log into the system.

3.2.2.3.   System/ Error handling requirement

3.2.2.3.1.   The Password will show as bubbles instead of normal characters.

3.2.2.3.2.   The system will check if the administrator entered the correct password with the corresponding Login ID stored in the system.

3.2.2.3.3.   If either the Login ID or password is incorrect, the system will prompt the error screen as shown in Figure G below.

Your Login ID does not exist or password is incorrect.

3.3.

3.3.1. Weekly Appointment Schedule

3.3.1.1. After logging in successfully the web will prompt to the Administrator Appointment Schedule for week page.

Dr. Fred's Appointment Calendar

Appointment Schedule for week of August 6, 2012

	Mon Aug 6	Tue Aug 7	Wed Aug 8	Thr Aug 9	Fri Aug 10
8- 9	○	○	○	○	○ Fred Jones
9-10	○	◉ Sam Spade	○	○ Pat Mat	○ Fred Jones
10-11	○	○ Jack Ho	○	○	○
11-12	○	○ Alice May	○	○	○
12- 1	○	○ Bob Cat	○	○	○ Nick Claus
1- 2	○	○ David Sams	○	○	○ Jane Tamy
2- 3	○	○	○	○	○
3- 4	○	○	○	○	○
4- 5	○	○	○ Gary Buz	○ Tammy Tams	○ Don Smith

[Edit Selected Appt] [Delete Selected Appt] [Select another Date] [Logout]

Figure H

3.3.1.2. The appointment calendar shows the current week appointment schedule from 8 am to 5 pm in one-hour interval, Monday through Friday as shown in Figure H above.

3.3.1.3. Weekly Schedule requirement

3.3.1.3.1. In the time of the appointment schedule, it shows the name of the patient with a *radio button*.

3.3.1.3.2. The administrator can edit, delete, and select another date of the selected appointment or Logout.

3.3.1.4. Editing the appointment

3.3.1.4.1. The admin can edit the appointment by clicking on *radio button* next to the patient name and click on the *Edit Selected Appt button*.

3.3.1.4.2.   The system will prompt you to the new page as shown in Figure I below.

3.3.1.4.3.   After updating the appointment or leaving comment, the administrator can click on the Update Appointment button to update the Appointment, the Select another date button to select another date, or the Logout button to logout.

Dr. Fred's Appointment Calendar

Update Appointment for
Friday, August 10, 2012   9-10

Name: Fred Jones
Address: 11111 Quail Run
City/State: Dallas, Texas   ZipCode: 75201
Phone: 240-555-1212   Email: fred@jones.com
Purpose of Visit? Follow up
☐ New Patient?
Comments:

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Need to get patient's updated insurance information.
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[Update Appointment]   [Select another date]   [Logout]

Figure I

3.3.1.4.4.   Edit page requirement

3.3.1.4.4.1. The page shows the date and time of the appointment, fields of the patient's name, address, phone number, e-mail address (if provided), and purpose of visit.

3.3.1.4.4.2. The page shows a *checked box* beside New Patient? if the patient is a new patient.

3.3.1.4.4.3. There is a multiple-lined field for the administrator to input comments for the appointment or the user.

3.3.1.4.4.4. There are 3 click buttons in the page - *Update Appointment*, *Select another date*, and *Logout*.

3.3.1.4.5.   Update Appointment

3.3.1.4.5.1. After clicking on the Update Appointment button, the system will go back to Administrator's Appointment Schedule for week page as shown in Figure 3.h.

3.3.1.4.6. Select another date
3.3.1.4.6.1. You can refer to Section 3.3.1.6.

3.3.1.4.7. Logout
3.3.1.4.7.1. You can refer to Section 3.3.1.7.

3.3.1.5. Delete the appointment
3.3.1.5.1. The administrator can click on the *Delete Selected Appt button* to delete the appointment with the chosen patient's *radio button*.
3.3.1.5.2. After the administrator clicks on the *Delete Selected Appt button* with chosen patient radio button, the system will go back to the changed Administrator's Appointment Schedule for week page as shown in Figure 3.h.

3.3.1.6. Select another date
3.3.1.6.1. The administrator can click on *Select another Date button* to select another date for the patient.
3.3.1.6.2. After the administrator clicks on the button, the system will wait for the administrator to choose the updated date and time for the patient.
3.3.1.6.3. After clicking on the *new date* and *time radio button*, the system would prompt the following message.
3.3.1.6.4. The message will show the **patient name** and the **updated date** and **time** as shown below in Figure J.
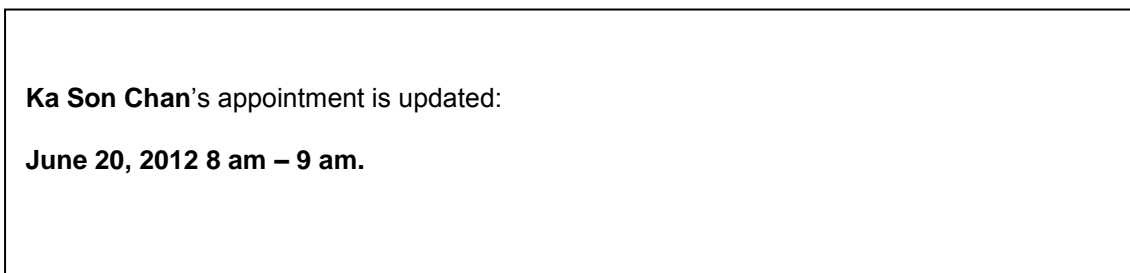

Ka Son Chan's appointment is updated:

June 20, 2012 8 am – 9 am.

Figure J

3.3.1.7. Logout
3.3.1.7.1. The administrator can click on the Logout button to log out the system.
3.4. After the administrator clicks on the Logout button, the system will prompt the screen below as Figure K below.
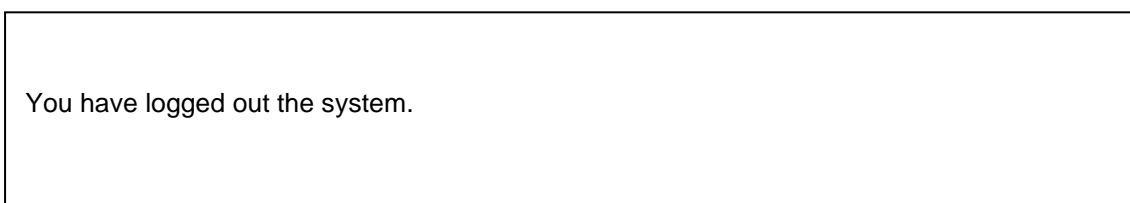

You have logged out the system.

Figure K

Glossary

Interface – A tool and concept that refers to a point of interaction between components, and is applicable at the level of both hardware and software.

PHP – A general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages. It is one of the first developed server-side scripting languages to be embedded into an HTML source document rather than calling an external file to process data.

Common Gateway Interface (**CGI**) – A standard method for web server software to delegate the generation of web content to executable files. Such files are known as *CGI scripts*; they are programs, often stand-alone applications, usually written in a scripting language.

A **radio button** or **option button** - A type of graphical user interface element that allows the user to choose only one of a predefined set of options.

Login or **logon** (also called **logging in** or **on** and **signing in** or **on**) - The process by which individual access to a computer system is controlled by identifying and authentifying the user referring to credentials presented by the user.