

E-Med Value Apple APP

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Outline

- ▶ Statement
- ▶ Development Plan
- ▶ General Objectives
- ▶ Resources and Market Evaluation
- ▶ Development Training
- ▶ Detail Requirements
- ▶ Development
- ▶ Verification and Debugging
- ▶ Submission and Marketing
- ▶ Additional Information

E-Med Value

» Statement and Justification

E-Med Value Statement

- ▶ “E-Med Value” formats personal health data into valuable knowledge that integrates the recipient's health conditions with care giver records for greater efficiency and easy use. Knowledge will lead to better health and life.
- ▶ The concept is; how to stay healthy. Once you are sick, the process is under the control of health giver.

E-Med Value Justification

- ▶ In one day typical doctor sees 50 patients, if 10 of them have more info on their iPad than the doctor, the doctor will ask the hospital to provide better system. This is how I will beat those firms.
- ▶ The doctor will have iPad and access to all the data, not data for billing. The doctors do not have all the side-effects of typical medications, or variation in the dosages, etc. With our system they got it, then their job is to explain it to the patients for better service. They don't have it on top of their head.
- ▶ If the doctor has all his patients data as we have in the system on his iPad, he/she can consult with the patient from anywhere, anytime with flexibility where the doctor may be, increasing the conversation time, frequency of the visits and more patients visits, resulting to better service, at much lower cost and more patients received, hence win-win condition.

E-Med Value development plan

» Steps in process of developing
E-Med Value

Steps

1. Selecting General Objectives
2. Resources allocation
3. Programing training
4. Preparing detail requirements
5. Develop first version of APP
6. Verification and Debugging
7. Submitting and Marketing APP
8. Timeline

1. Selecting General Objectives

- ▶ Write objectives
- ▶ Select main attributes
- ▶ Evaluating current market
- ▶ Finding special feature

2. Resources allocation

Hardware		
iPhone	Checking the features of the Apps Checking the developed App	375 \$CAD
Macbook Or iMac	For developing iPhone APP	1600 \$CAD
Software		
Apple developer registration	Accessing to software	Done
iOS-SDK/Xcode	Main programming software	After buying Computer (Free)
iOS developer Program	Testing on actual device Using available codes and forums	After learning the programming (99\$/Yr)
App purchase	Evaluating the features of not-free ones	Around 200 \$CAD

3. Program Training and Marketing

- ▶ Training Material
- ▶ Arranging Materials
- ▶ Scheduling learning and training
- ▶ Stablishing Company
- ▶ Exploring financial supports
- ▶ Trending the App Price

4. Developing Detailed Requirements

- ▶ Dividing objectives in different versions
- ▶ Learning about HealthKit

5. Develop First Version of APP

- ▶ Selecting new main-features
- ▶ Defining objectives and features in-depth
- ▶ Preparing APP preliminary-sketch
 - Paper
 - Computer
- ▶ Writing the functional/operational requirements
- ▶ Developing the User Interface View
- ▶ Writing the codes

6. Verification and Debugging

- ▶ Running on iOS simulator
- ▶ Running on iPhone systems
- ▶ Testing by 10 people

7. Submitting and Marketing APP

- ▶ Preparing Apple required documents
- ▶ Submit the app
- ▶ Marketing the app

8. Timeline

▶ First version submission by the end of March 2015

- ✓ Learning programming: End of Dec 2014
- ✓ App detail requirements: 20th of January 2014
 - App Raw Version: 10th of February
 - App 1st Version: 25th of February
 - App debugging: 5th of March
 - App legal review: 25th of March

General Objectives of E-Med Value Health APP

- » General objectives and requirements for developing the E-Med Value

1.General Objectives

- ▶ Level-1
 - Get the health data from user in personalized way
 - Build health status data-base
 - Show the data graphically and alerts
 - Provide a toggle between metric and English units for height and weight
- ▶ Level-2
 - Get general medical information
 - Receive the medication and diet info
 - Build data-base
 - Notification for taking medication
 - Checking products for special diets(new)
- ▶ Level-3
 - Processing Health status on cloud
 - Sharing databases with experts
 - Q&A with experts(including family doctor)
 - Calculate daily diet according to food consumption

1.1. Objectives; Level-1

- ▶ Get the health data from user
 - Identity info
 - Select or add parameters and their units
 - Input ways
 - Time interval and accuracy
- ▶ Build health status data-base
 - Creating data base
 - Simple processing for limits and normal values
- ▶ Show the data and alerts
 - Different charts/diagrams for displaying data and normal values
 - Comparison with normal in different time scale
 - Using colors for alerts

1.2. Objectives Level-2

- ▶ Get general medical information
 - Provide reliable medical information or resources related to collecting data
- ▶ Receive the medication and diet info
 - Parameters and standards (e.g. medical or trade name)
 - Input ways
 - Inputting time
- ▶ Build database
 - Creating standard database
 - Warning system for new medication

1.2.2 Objectives Level-2 Cont.

- ▶ Notification for taking medication
 - Input way
 - Time interval and period
 - Notification type
 - User response
 - Connection to data base
- ▶ Checking products for special diets(new)
 - Find products information
 - Compare with diet and medication
 - Notify any incompatibility

1.3 Objectives Level-3

- ▶ Sharing databases with experts
 - Who and how to select
 - Access types
- ▶ Q & A with experts(including family doctor)
 - Who and how
 - Communication methods
- ▶ Calculate daily diet according to food consumption
 - Input way
 - Standards

Resources and Market Evaluation

- » What are already there and how we can use them or compete with them

2. Purchasing required Hardware and Software

Hardware		
iPhone	Checking the features of the Apps Checking the developed App	375 \$CAD
Macbook Or iMac	For developing iPhone APP	1200 \$CAD
Software		
Apple developer registration	Accessing to software	Done
iOS-SDK/Xcode	Main programming software	After buying Computer (Free)
iOS developer Program	Testing on actual device Using available codes and forums	After learning the programming (99\$/Yr)
App purchase	Evaluating the features of not-free ones	Around 200 \$CAD

2.1. Rules and Guidelines

- ▶ Review Guideline
 - [link](#)
- ▶ Marketing Guidelines
 - [link](#)

2.2. Apple Support

- ▶ ios developing help
 - [Apple developing steps](#)
 - [Stanford iOS development course](#)
- ▶ HealthKit
 - [Link](#)
- ▶ Programs
 - Xcode and Objective-C
- ▶ iOS developer program
 - Website(subscription)

2.3. Competitors on IOS

- ▶ Health (owned by Apple)
 - [Link](#), [Video-1](#) and [Video-2](#)
- ▶ Apps Connected to HealthKit
 - 23 of them([link](#))
 - 5 of them ([link](#))
- ▶ Stand-alone
 - Capzule PHR ([link](#))
- ▶ Electronic Health/Medical recording software
 - Athena Health Healthspek
 - Practice Fusion Omino
- ▶ More Apps are mentioned in next slide

2.4. Competitors Evaluation

Features\APPS

	<u>Health</u>	<u>Capzule PHR</u>	<u>MyFitnessPal</u>
marketing features			
general APP features			
medical features			
medication features			
insurance features			
diet features			
Platform(iOS ,apk)	iOS	iOS	
Purchase fee (\$)	0	4.99	
Broadcast Health info	-	-	
Search for Health info	-	-	
Saving personal general data	Yes	Yes	
Saving medical records	Yes	Yes	
Inputing health data for monitoring	Yes	Yes	
Sketching health data timeline	Yes	Yes	
Defining normal and risks zone and alerts	-	Yes	

Double click to see all Cells and edit embedded excel

2.4.1 Profile Information

Parameters	Units		
Sure name			
Given name			
Birth date			
Gender			
Blood type			
Height	cm,ft-in,		
BMI range			
picture			
Email			
Address			
Phone			
Physicain	Name and Contact		

Double click to see all Cells and edit embedded excel

2.4.2 Medical Records

Parameters	Example		
Conditions+ time	Asthma(2004)		
Allergies	pinut		
(Bone) Fractures+time			
immunization			
lab test results			

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2.4.3 Monitoring Parameters

Parameters	Units	
Weight		
Blood Pressure		
Blood Sugar		
Heart rate		
cholesterol		
sleep time		
sleep noise		

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2.4.4 Medication Records

Parameters		
Medication		
Duration		
Value		
time interval		

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2.4.5 Diet plan

Parameters	Units	
Calories burned		
Nutritions		

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2.4.6 Input and Output Methods

Input	Output	
Keyboard	PDF	
Scanning QR codes	QR codes	
Scanning pictures and OCR	Image of graphes	
CSV	Email	
Edit on computer browsers	Back-up on Cloud	

Double click to see all Cells and edit embedded excel

2.5 Potential New Features

- ▶ Insurance company
- ▶ Family Doctor quick support
- ▶ Taking medication and their side effects
- ▶ Health info
- ▶ Nearby Hospital or Clinic
- ▶ Medical test trace
- ▶ Embedding short useful description of medical terms
- ▶ Doctor involvement (plus Dentist and optometrist)
- ▶ HealthKit and Health I/F features
- ▶ Version in Spanish (expand to other languages)

Program training

- » Information about learning to design and code the iOS APPs

3.1 Programming Learning Resources

- ▶ Developing App:
 - Apple Start Developing iOS Apps Today ([link](#) + pdf)
 - iOS developing library ([link](#))
 - Stanford lectures ([link](#))
 - Udemy course
- ▶ Objective-C language:
 - Apple Programming with Objective-C ([link](#) + pdf)
 - Lynda.Objective-C.Essential.Training.2013 (pdf)

3.2. Dev. Learning Schedule

- ▶ Reading material
 - Apple started
 - Stanford lectures
 - Apple Objective-C
- ▶ Practicing (Need Macbook)
 - Interface design
 - Programming

E-Med Value Detailed Requirements

- » features should be met and
constraint should be covered

4.1 . Developing Detail Requirements

- ▶ Learning about HealthKit
- ▶ User needs
 - Supporting iPhones: 5,6,6plus
 - Supporting view: Portrait
 - Fixed medical data (no user-add)
 - Release for US for this version
- ▶ Apple review:
 - Exit from app by holding home button ([link](#))
- ▶ Dividing objectives in different versions

E-Med Value (1st Ver.) Development

- » It includes design process from scratch via design to programming

5. Development contents

1. Main feature Statement
 - App objectives
 - App name and logo
2. Features
 - Categorized contents
3. Sketch
 - Paper-based
 - Computer-based
4. Functional/Operational requirements Checklist
5. The User-Interface View
6. Coding

5.1 Main Feature Statement

- ▶ The app records & tracks main health conditions. Over 80% of people's health issues are related to blood and heart, which are related to blood & urine tests.
- ▶ Briefly, this APP can give the normal range, definition (what it is related to) of related medical parameters. Once users have their lab result, They can see and share their conditions with care givers!

5.1.1 1st Version Objectives

Concept

1. Monitoring medical test result
2. Input the results of the test labs
3. List of current medications for each parameters
4. Diet for Each parameters
5. Educates people about the parameters with short descriptions
6. Giving the test results to the doctor in medical check

Clever formats

1. Education implement inside of our apps
2. User friendly
3. Benefiting from the apple official Health App
4. Ease of communication with other systems (e.g. QR codes)

5.1.2 Name selection

specific word	Health word	Function word	Others	Preferred APP name
i	medical(Med)	log(ger)	App	<i>Self Care Kit</i>
e	Care	manag(er)	note	<i>i-Toolkit 4 Health</i>
my	Health	tool(kit)	data	<i>e-Care (Tool)Kit</i>
self	Patient	kit	value	Personal Care Toolkit
personal	wellness	monitor	stat	<i>Quick Health Logger</i>
pocket		service	archeive	<i>Quick Health Aid</i>
for(4)		check(er)	trend	<i>Wellness i-Logger</i>
general		scan(ner)	Doc	e-Med Kit
essential		assist(ant)		E-Med Personal
expert		help(er)		My Health Logger
connect		aid		E-Health Personal
portable		source		
quick				

Double click on table to edit Excel worksheet

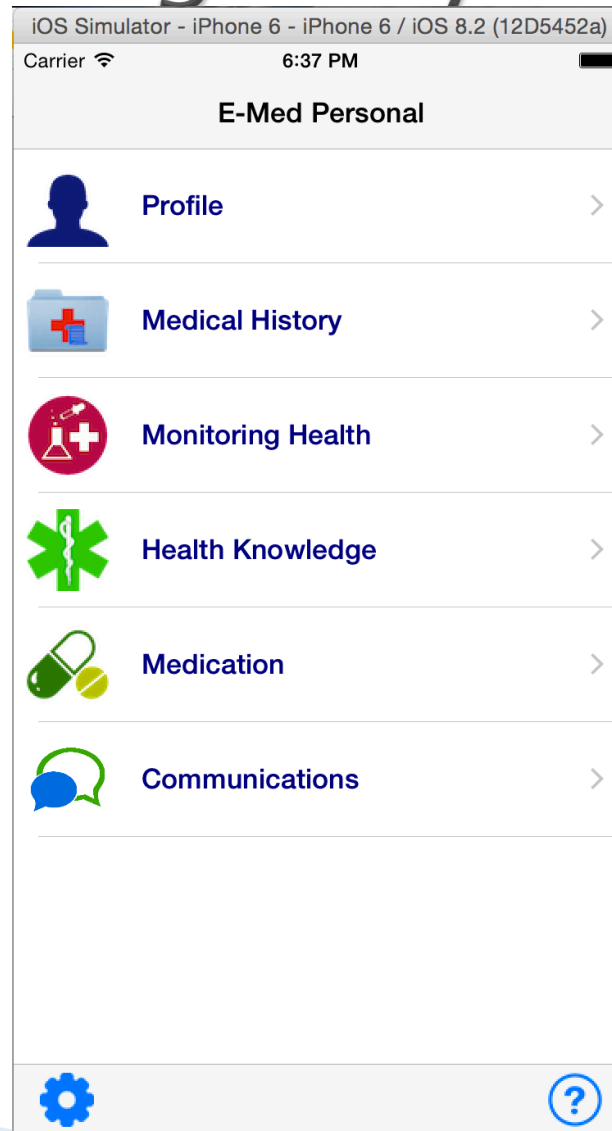
5.1.3 Logo Selection

- ▶ Health element
- ▶ Medical element
- ▶ Color
- ▶ Simplicity

5.2 Features

1. **Profile:** name, phone, address, e-mail, emergency contact, insurance particulars, Dr. name & phone, preferred hospital, etc.
2. **Medical records (History):** consisting of allergies, drug reactions and critical records like surgeries
3. **Health monitoring:** smart tracking blood and urine test results such as blood glucose, A1C, cholesterol, etc.
4. **Medications:** records and current
5. **Health info:** Embedded useful health and diet info
6. **Communication:** input and output data module to receive and share info in user-friendly way via utilizing the Apple Healthkit platform platform. It has also managing care giver communications including appointments and medicine
7. **Setting and Guide:** the adjustment and user guide

5.2.0 Main Page Layout



5.2.1 Profile Content

1. Single Person:

- This version should deal with only one user information. Multi user profile will be supported in the future versions.

2. General Profile should contain:

- Name (first and last)
- Birth date
- Photo (personal and Photo ID)
- Phone (home, office, and cell)
- Address (home and office)
- E-mail

- Notification
- Family access
- Test Result PIN

3. Emergency Profile

- Emergency contact (Name, address, phone, Email)

4. Doctor name & phone

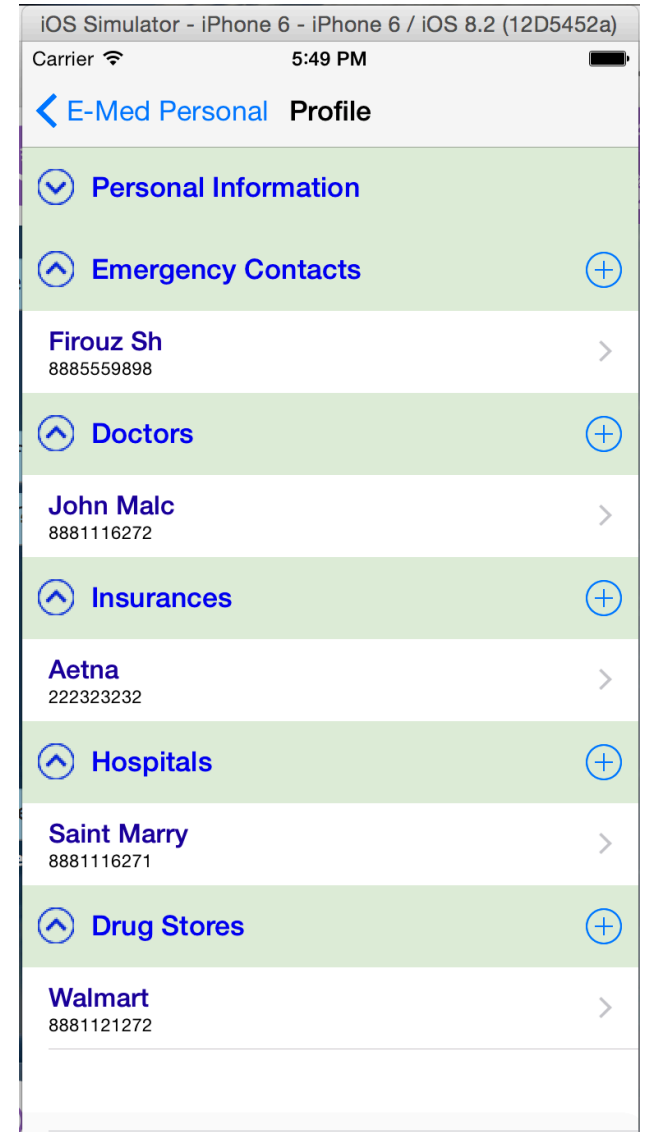
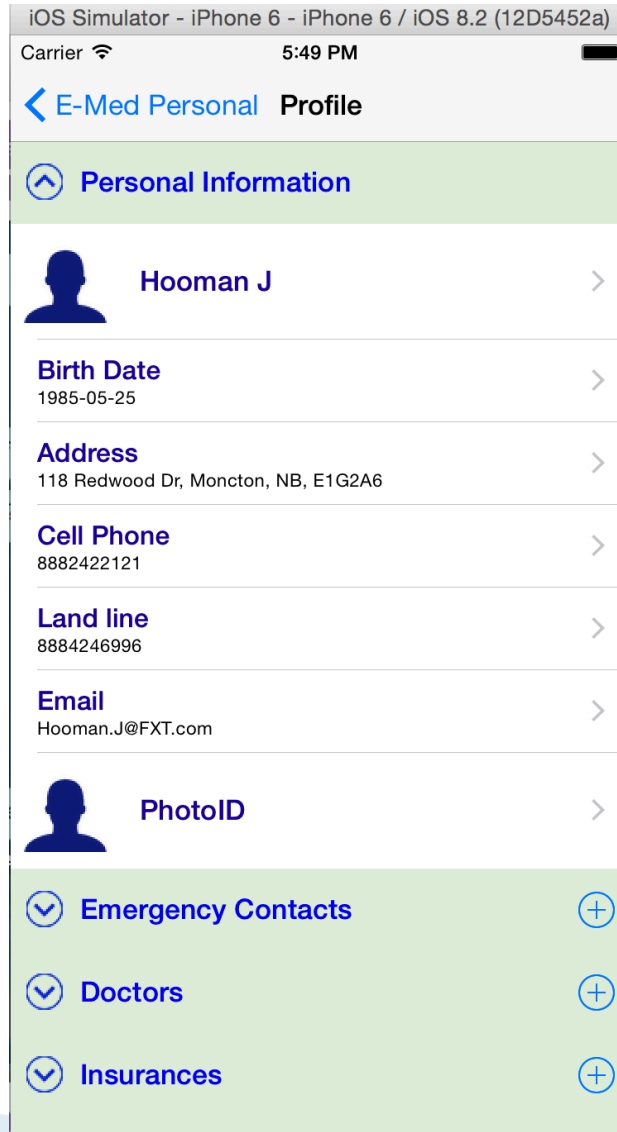
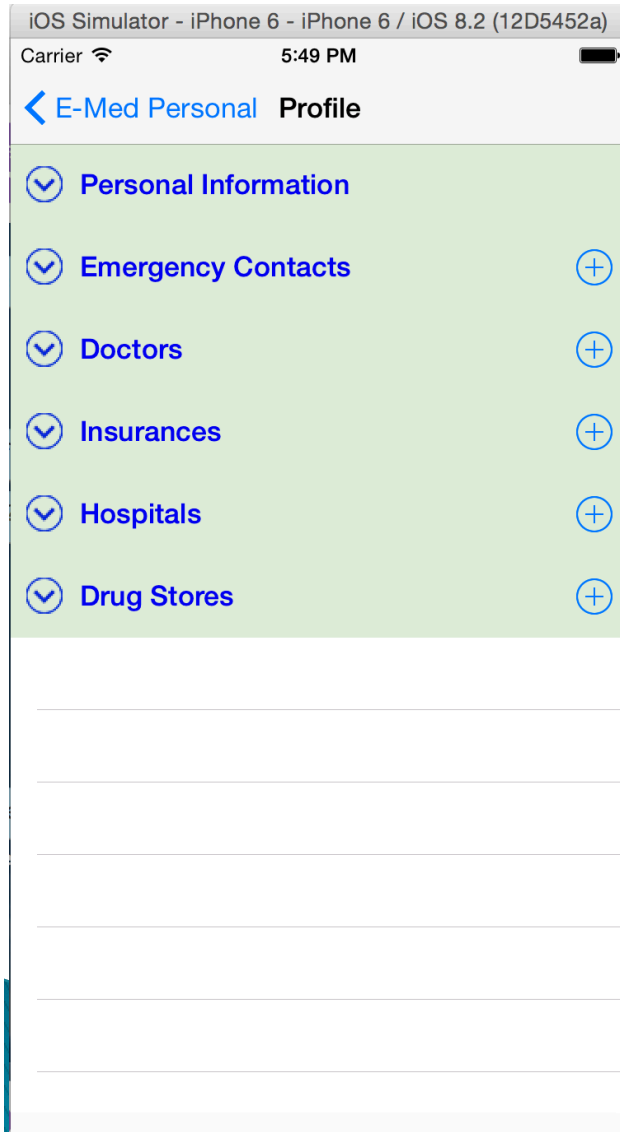
5. Insurance particulars (name & policy number),

6. Preferred hospital and 7. drugstore

5.2.1.1 Profile Data Model

```
SectionTitles = [ "Personal Information", "Emergency Contacts", "Doctors", "Insurances", "Hospitals",  
                  "Drug Stores"]  
  
personalTitle = [ "Name", "Birth Date", "Address", "Cell Phone", "Land line", "Email", "PhotoID",  
                  "Photo"]  
  
PersonalInfo = [ "Hooman J", "1985-05-25", "118 Redwood Dr, Moncton, NB, E1G2A6", "8882422121",  
                  "8884246996", "Hooman.J@FXT.com", "Profile", "Profile"]  
  
EmergencyContacts = [ "Firouz Sh" : ["8885559898", "Firouz.J@FXT.com", "Skype ID", "note"]]  
  
Doctors = ["John Malc" : ["8881116272", "8882422121", "1022 Mountain Rd, Moncton, NB,  
                          A1E2B1", "note"]]  
  
Insurances = [ "Aetna" : ["222323232", "notes"] ]  
  
Hospitals = [ "Saint Marry" : ["8881116271", "8882422121", "1022 Mountain Rd, Moncton, NB,  
                              A1E2B1", "note"] ]  
  
DrugStores = [ "Walmart" : ["8881121272", "8882422121", "1021 Mountain Rd, Moncton, NB,  
                             A1E2B1", "note"]]
```

5.2.1.2 Profile View



5.2.1.3 Profile Data Entry

5.2.2 Medical History content

1. Medical profile:

- Blood type
- Age (it can be calculated from birthdate in profile)
- Height (based on age can change!)
- Spectacles

2. Immunization (Vaccines)

3. Medical device in use

4. Allergies

- Food (gluten, peanuts)
- Drug reaction or resistance

5. Medical History

- Critical records (Name, Date, Duration, medications)
 - Surgeries, Fracture, Communicable Diseases, Inherited condition

6. Recent Charges

- Past Charges and Tax return
- Send Message Regarding Charges

5.2.2.1 Medical History Data Model

```
HistorySection = ["Med Profile", "Allergies", "Immunization", "Med Record", "Med Device"]

MedProfile = [ "Blood Type" : ["A+", "notes"], "Age" : ["55", "notes"], "Height" : ["165 cm",
"notes"], "Spectacle" : ["yes" , "prescription", "notes"]]

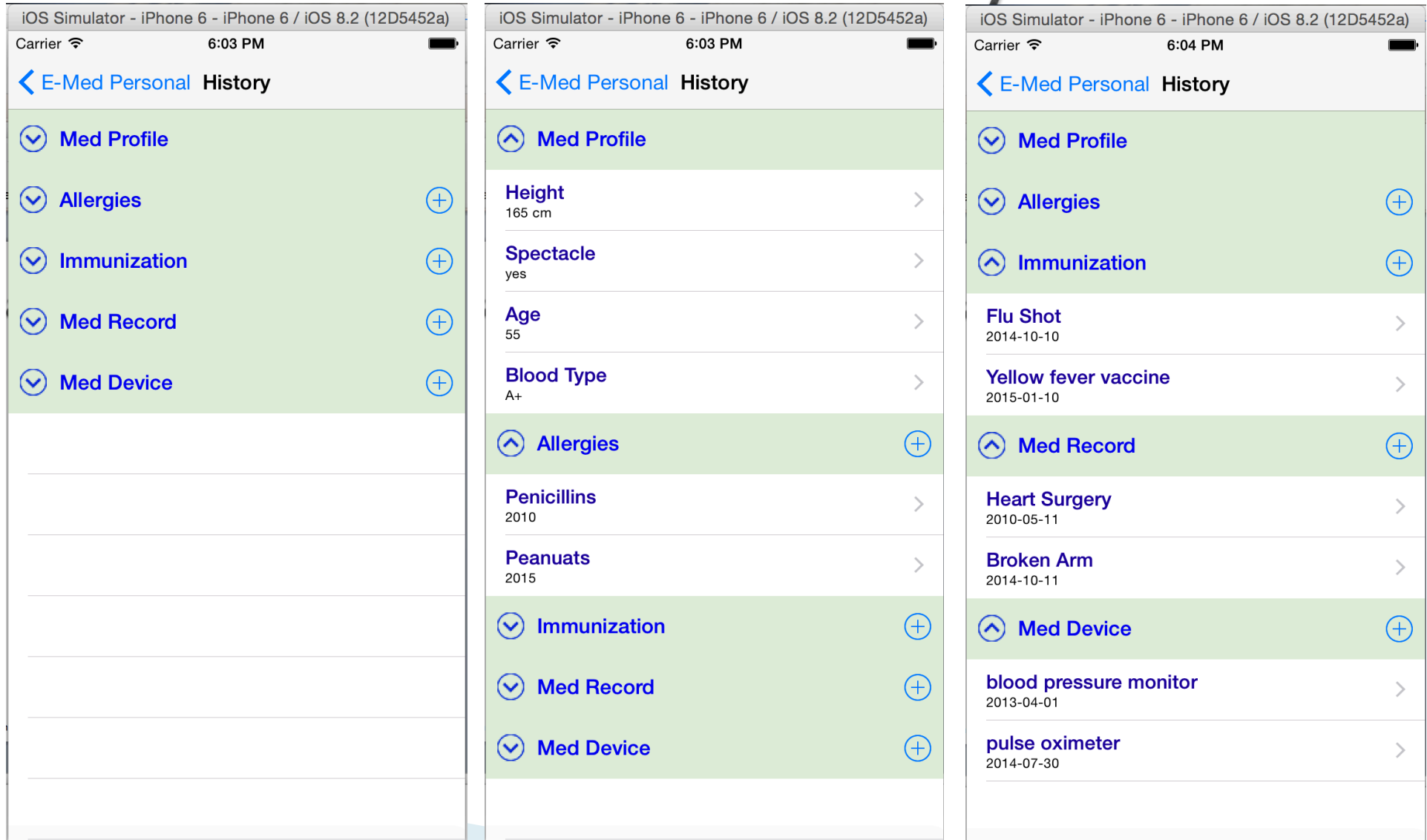
Allergies = [ "Peanuats" : ["2015", "reaction", "notes"], "Penicillins" : ["2010", "reaction",
"http://www.webmd.com/allergies/tc/drug-allergies-topic-overview"]]

Immunization = [ "Flu Shot" : ["2014-10-10" , "notes"], "Yellow fever vaccine" : ["2015-01-10"
"http://www.webmd.com/children/vaccines/tc/immunizations-travel-immunizations"]]

MedRecord = [ "Broken Arm" : ["2014-10-11", "notes"],
"Heart Surgery" : ["2010-05-11", "notes"]
]

MedDevice = ["blood pressure monitor" : ["2013-04-01", "Blood pressure", "Brand", "notes"],
"pulse oximeter" : ["2014-07-30", "O2 saturation", "Brand", "http://en.wikipedia.org/wiki/
Pulse_oximetry"]]
```

5.2.2.2 Medical History View



5.2.2.3 Medical History Data Entry

5.2.3 Monitoring Health Content

1. Managing parameters:

- Categories: parameters may be organized in disease related groups:
 - Sample categories: General, Blood, Heart, Kidney
- Units: The conventional units and possible unit conversation should be provided
- Add new parameter: There should be a database that the users can add new parameters from it. The user can send a request if the parameter isn't in the database.

2. Data presentation

- Versus time
- Table format inside the app
- Graphic format using Health App and HealthKit
- Test Results
- Care Summaries
- Vitals
- Reminder in setting

3. Acceptable range

- Acceptable range will provide within medical information
- In/Out of range of inputted data will show by coloring the table cells (e.g. green/red)

5.2.3 Health Monitoring Content (Cont.)

1. **Test parameters:** Tracking heart, blood and urine parameters
 - Lipid Panel: Cholesterol, Triglyceride, HDL, LDL.
 - Comprehensive Metabolic: Creatinine, Albumin, Calcium Serum, BUN, Potassium, ALT, AST.
 - PSA

Parameter	Categories	Units	Range	Other names or abbreviations
BMI	Generic			Calculation
Blood glucose	Diabetes			
Hemoglobin A1C	Diabetes	mmol/mol		HbA1C, A1C, Hb1C, HbA1c or HGBA1C

Double click on table to edit Excel worksheet

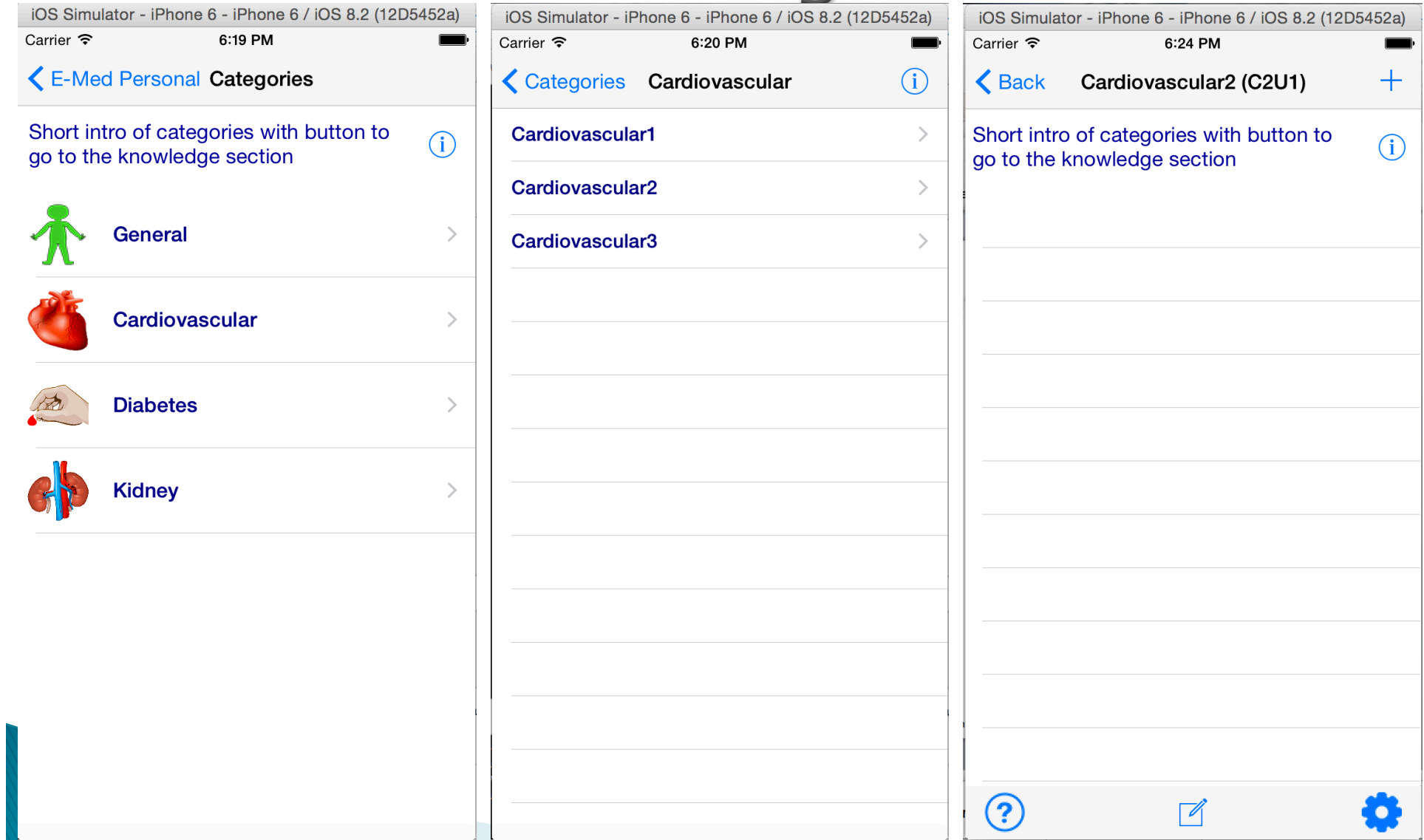
5.2.3.1 Monitoring Data Model

```
categoriesTitle = ["General", "Cardiovascular", "Diabetes", "Kidney"]

parameterlists = [ categoriesTitle[0] : ["General1", "General2"],
categoriesTitle[1] : ["Cardiovascular1", "Cardiovascular2", "Cardiovascular3"],
categoriesTitle[2] : [ "Diabetes1", "Diabetes2", "Diabetes3", "Diabetes4"] ,
categoriesTitle[3] : [ "Kidney1" ] ]

parameterUnits = [
    parameterlists[categoriesTitle[0]][0] : [ "G1U1", "G1U2", "G1U3"],
    parameterlists[categoriesTitle[0]][1] : [ "G2U1", "G2U2", "G2U3"],
    parameterlists[categoriesTitle[1]][0] : [ "C1U1", "C1U2"],
    parameterlists[categoriesTitle[1]][1] : [ "C2U1", "C2U2"],
    parameterlists[categoriesTitle[1]][2] : [ "C3U1", "C3U2"],
    parameterlists[categoriesTitle[2]][0] : [ "D1U1", "D1U2"],
    parameterlists[categoriesTitle[2]][1] : [ "D2U1", "D2U2"],
    parameterlists[categoriesTitle[2]][2] : [ "D3U1", "D3U2"],
    parameterlists[categoriesTitle[2]][3] : [ "D4U1", "D4U2"],
    parameterlists[categoriesTitle[3]][0] : [ "K1U1", "K1U2"]
]
```


5.2.3.2 Monitoring View



5.2.3.3 Monitoring Entry (Data & Note)

5.2.3.4 Monitoring Entry (Setting, Guide)

5.2.4 Health Knowledge contents

1. **Showing method:** Embedded smart health and diet info for each monitoring parameter
 - It is based on the monitoring parameters and should reach through it.
 - Short and useful definition Related diet tips
 - Available medication and their information: it will provide medications available for the common conditions (heart, cholesterol, glucose, etc.), listings of the side-effects, dosage options, etc.
 - Hint about how to monitor parameters
 - Introducing some health indexes like BMI based on test paremeters and indexes
 - Website content*:
 - www.webmd.com (legal)
2. Generic Drugs Search
3. Good to Know Websites
4. Search

5.2.4.1 Knowledge Data Model

```
knowledgeCategories = MonitoringModel().categoriesTitle
knowledgeCategories.append("Medication")
knowledgeCategories.append("Websites")

knowledgeIntroText = "Introduction to Health knowledge and its categories"

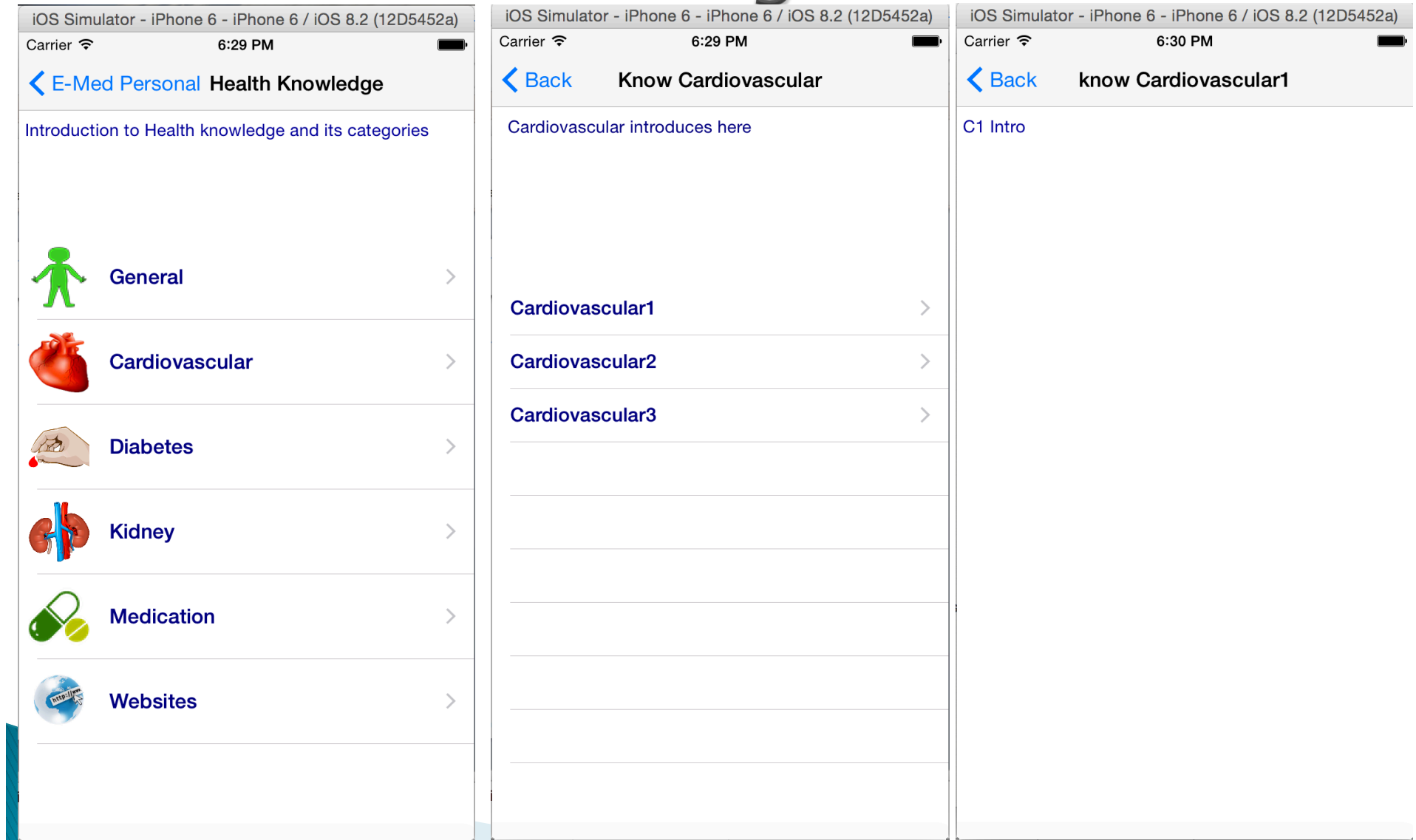
knowledgeCategoryTexts = [
    knowledgeCategories[0] : "General introduces here",
    knowledgeCategories[1] : "Cardiovascular introduces here",
    knowledgeCategories[2] : "Diabetes introduces here",
    knowledgeCategories[3] : "Kidney introduces here"]

knowledgeParameterlists = MonitoringModel().parameterlists

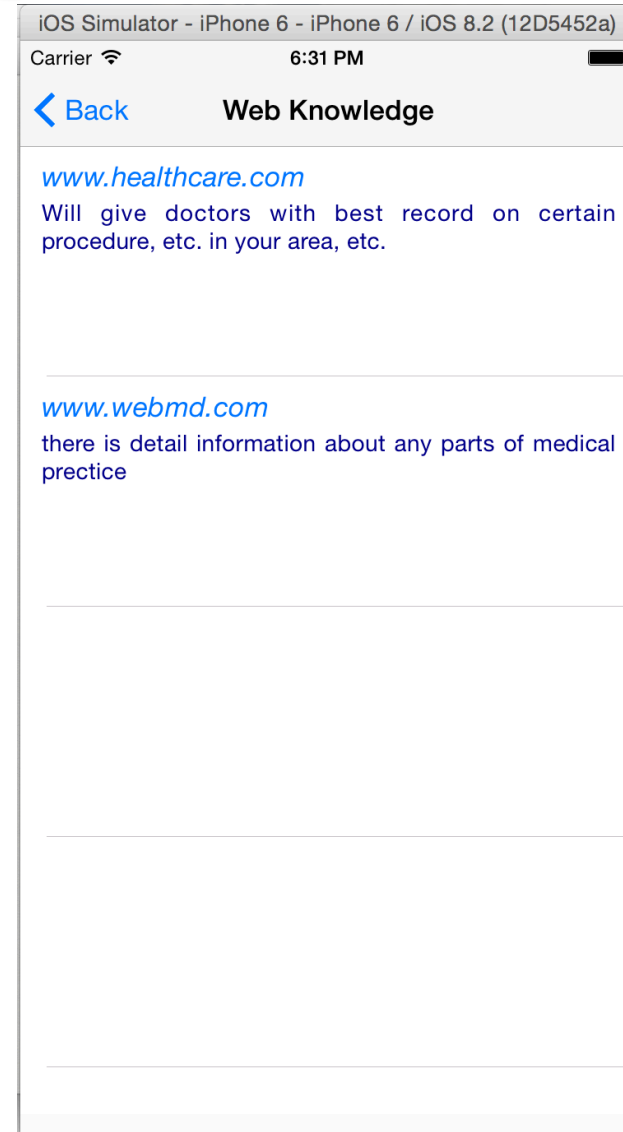
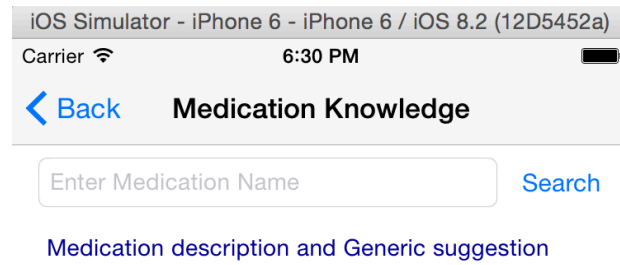
knowledgeParameterTexts = [
    knowledgeParameterlists[knowledgeCategories[0]][0] : "G1 Intro",
    knowledgeParameterlists[knowledgeCategories[0]][1] : "G2 Intro",
    knowledgeParameterlists[knowledgeCategories[1]][0] : "C1 Intro",
    knowledgeParameterlists[knowledgeCategories[1]][1] : "C2 Intro",
    knowledgeParameterlists[knowledgeCategories[1]][2] : "C3 Intro",
    knowledgeParameterlists[knowledgeCategories[2]][0] : "D1 Intro",
    knowledgeParameterlists[knowledgeCategories[2]][1] : "D2 Intro",
    knowledgeParameterlists[knowledgeCategories[2]][2] : "D3 Intro",
    knowledgeParameterlists[knowledgeCategories[2]][3] : "D4 Intro",
    knowledgeParameterlists[knowledgeCategories[3]][0] : "K1 Intro"]

knowledgeWebsites = [ "www.healthcare.com" : "Will give doctors with best record on certain
    procedure, etc. in your area, etc. ",
    "www.webmd.com" : "there is detail information about any parts of medical practice"]
```

5.2.4.2 Knowledge View



5.2.4.2 Knowledge View-Cont



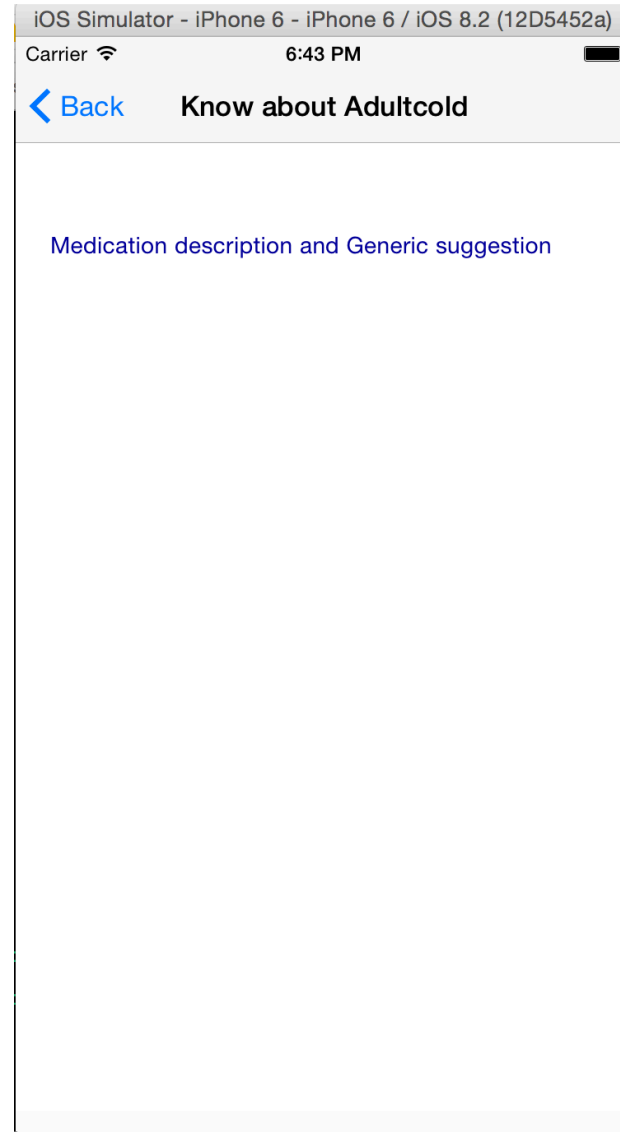
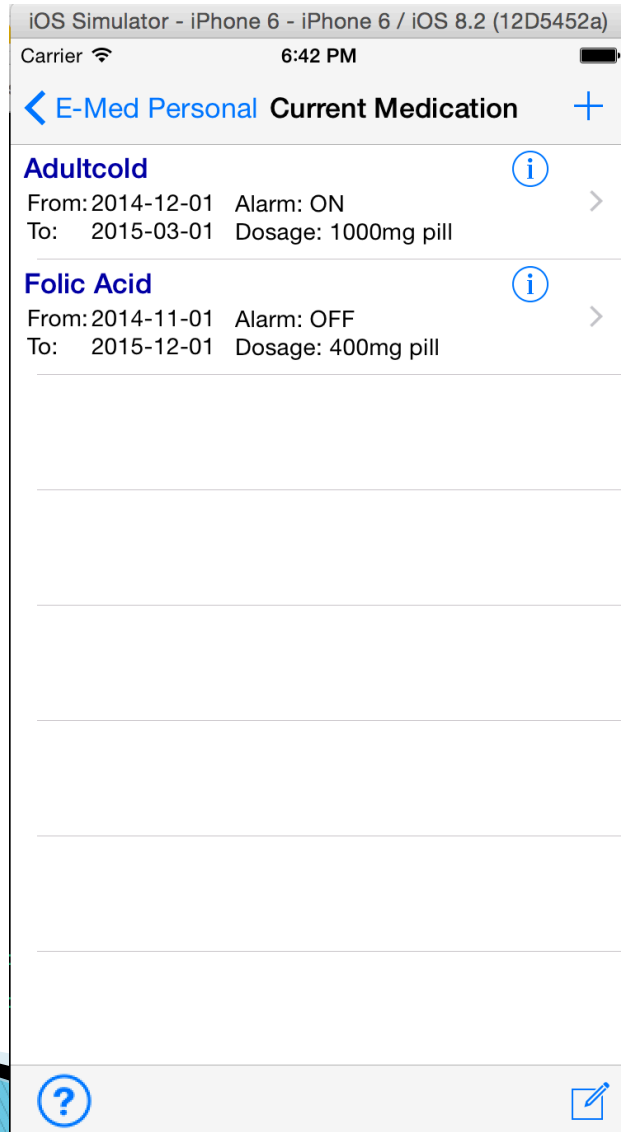
5.2.5 Medication Content

1. Current and Past Medication and alarm
 - Change the color of expired medication
2. Recommendation on low-cost generic medications that are FDA approved with equivalents brand-name. (combination with healthknowledge)
3. Coordination with caregivers education needed (minuteclinic.com).
4. Notes for medication

5.2.5.1 Medication Data Model

```
/////////  
Names.append("Folic Acid")  
From.append("2014-11-01")  
To.append("2015-12-01")  
Dosage.append("400mg pill")  
startTime.append("08 PM")  
takingInterval.append("24 Hours")  
alarm.append("OFF")  
  
///////// change the key for later use since may have two medication at the same time  
medicationDict[From[0]] = [ Names[0], From[0], To[0], Dosage[0], startTime[0], takingInterval[0],  
alarm[0]]
```

5.2.5.2 Medication View



5.2.5.3 Medication Entry (Data & Note)

5.2.5.3 Medication Guide

5.2.6 Communication Content

1. Doctor communication
2. Pharmacist communication
3. If it is possible to create interface with EHR, insurance and current hospital Apps, but security is a concern (TBD)
4. Communication with Web Content Source of our App

5.2.6.1 Doctors Content

1. Creating a report from data and Note in apps to send to doctor or hospital.
2. **Managing appointment**
 - Appointment request
 - Alarm to send the latest information to doctor ahead of appointment (n-day ahead)
 - Notification for appointment time (n-hours ahead)
 - Check-in Update
 - Past and Upcoming
 - Recommend(Note)
 - **Medical Forms**
3. **Messages: (Security)**
 - **Compose Message**
 - **Send and Receive Message**
 - **Archived Message**

5.2.6.2 Pharmacist Content

1. Communication with Registered drug store or chain
2. Managing prescription on line.
3. Text alert feature for next prescription is ready and refill maintenance.
4. Prescription refills from wherever and whenever.
5. **Messages: (Security)**
 - Compose Message
 - Send and Receive Message
 - Archived Message
6. **Drug Store Locator**

5.2.6.3 Comm Data Model (Doctor)

```
Names.append("Folic Acid")
Next.append("2014-03-01")
Reminder.append("OFF")
RefillNo.append("01")
Amount.append("30 400mg pill")
Interval.append("30 days")
StoreName.append("CostCo")
StoreAddress.append("2452 RoseWille")
StorePhone.append("18882322424")
StoreWebAddress.append("www.costco.com")
Notes.append("-----")

////////// change the key for later use since may have two medication at the same time

DrugDict[Names[0]] = [ Names[0], Next[0], Reminder[0], RefillNo[0], Amount[0], Interval[0],
                      StoreName[0],StoreAddress[0],StorePhone[0],StoreWebAddress[0], Notes[0]]
```


5.2.6.3 Comm Data Model (Refills)

```
Names.append("Dr.John")

Time.append("2014-12-01, 10:10")

Reminder.append("OFF")

Reason.append("Chestpain")

Reportsent.append("No")

MedicalForm.append("Yes")

Inforeceived.append("Yes")

DrAddress.append("105 RoseWille")

DrPhone.append("18882322424")

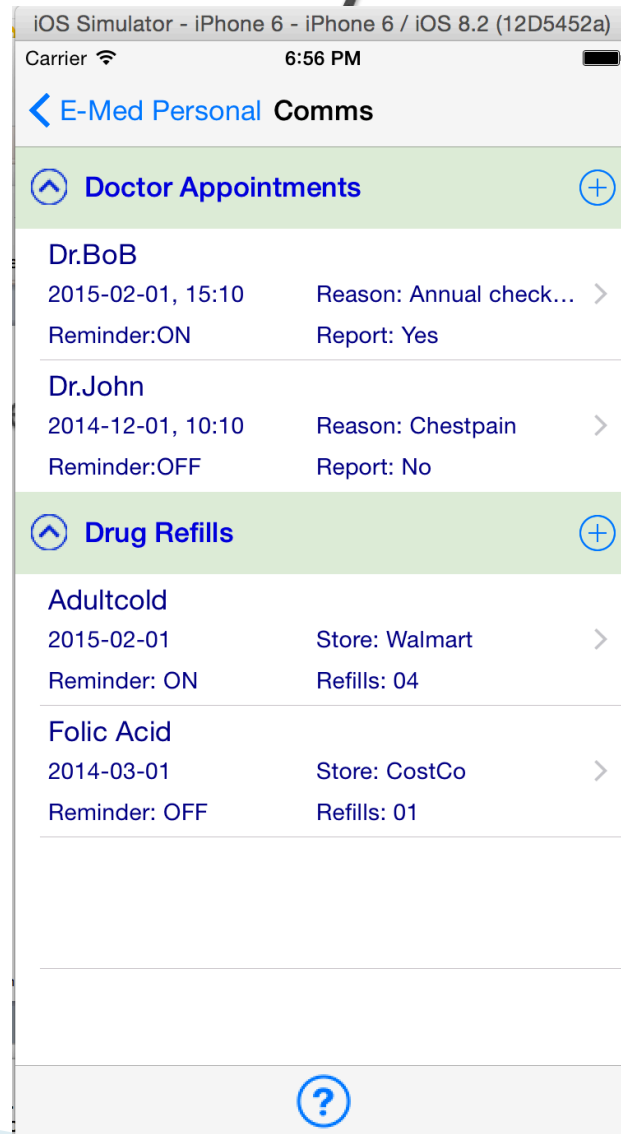
DrWebAddress.append("www.hellenhospitall.com")

Notes.append(">>>>>>>>")

//////// change the key for later use since may have two medication at the same time

AppointmentDict[Names[0]] = [ Names[0], Time[0], Reminder[0], Reason[0], Reportsent[0], MedicalForm
[0], Inforeceived[0],DrAddress[0],DrPhone[0],DrWebAddress[0],Notes[0]]
```

5.2.6.4 Comm Layout



5.2.6.5 Comm Entry (Data & Note)

5.2.6.6 Comm Guide

5.2.8 Setting and Guide Contents

1. Help:

- Help (pages and pop-up at first use)
- Video introducing the features

2. Setting

- Access and Security
- Sharing data via HealthKit
- Download Health Data
- Transmit Health Data
- Health Reminder
- Learning Material
- Portal Activity
- Legal terms (section and pop-up at first use)

5.2.8.1 Access and Security

▶ User access:

- Password protection (4 digits) or
- Touch ID (Digital finger print)[[link](#)] or
- User name and password!

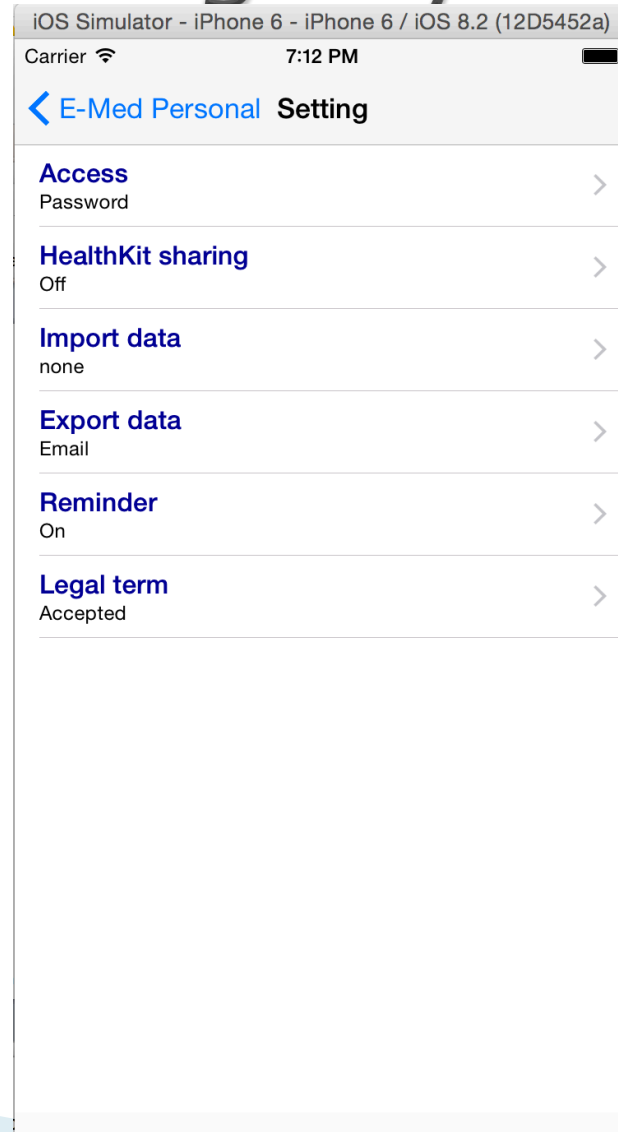
▶ Information Sharing:

- Using Email to send information out of device(Send the information to Email).
- Emergency info and contact access via Health APP emergency option. Recorded voice option can be added to send in case of emergency.

5.2.8.2 Setting Data Model

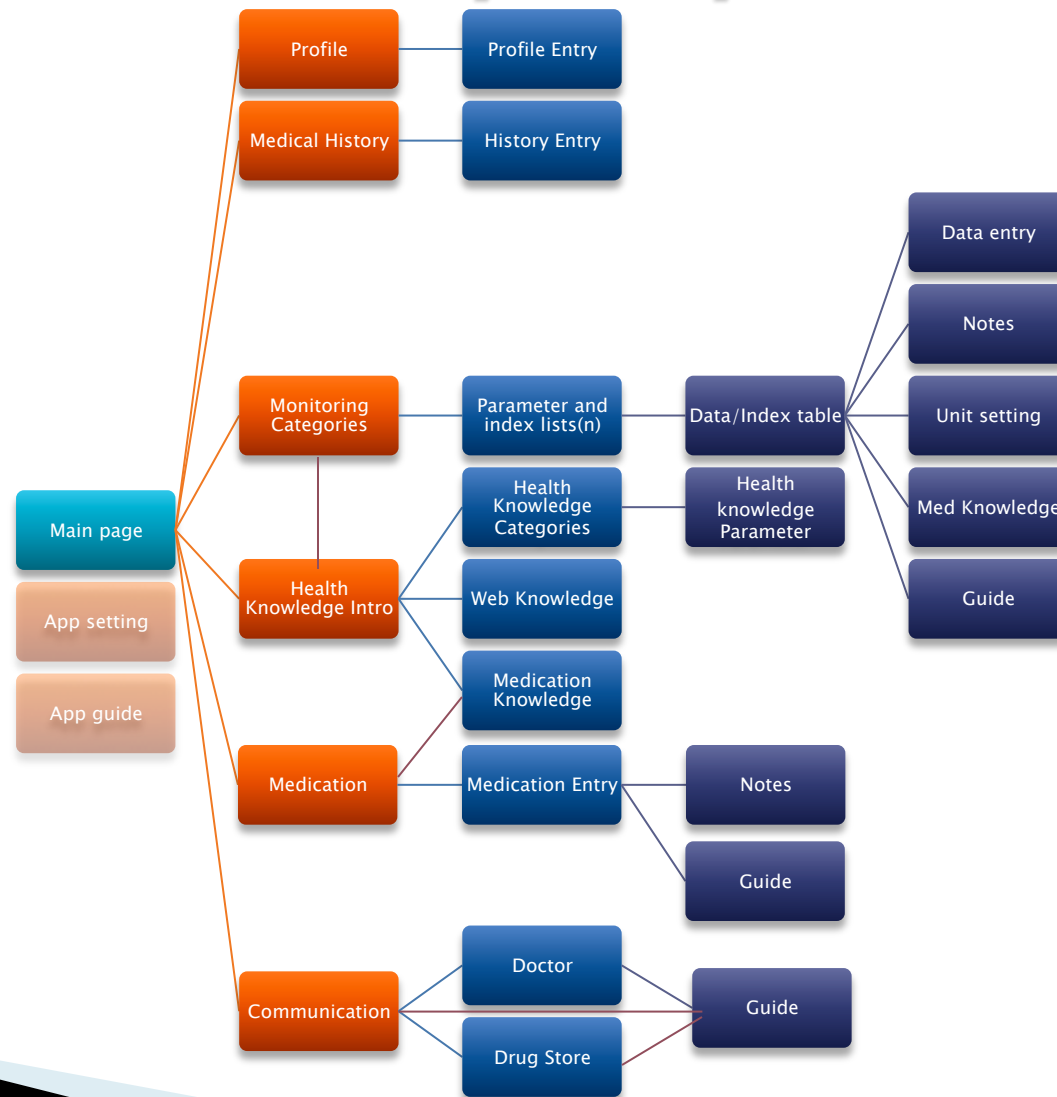
```
Titles = [ "Access", "HealthKit sharing", "Import data", "Export data", "Reminder", "Legal term"]
Access = [ "None", "Password", "Touch ID"]
HealthKitSharing = [ "On","Off"]
ImportData = ["none", "Email", "Cloud", "SMS"]
ExportData = [ "none", "Email", "Cloud", "SMS"]
Reminder = [ "General" : "On" , "Medication" : "On", "Monitoring" : "Off", "appointment" : "On",
  "refills" : "Off"]
LegalTerms = [ "Accepted", "Not Accepted", "Terms"]
Subtitle = [String]()
Subtitle = [ Access[1], HealthKitSharing[1], ImportData[0], ExportData[1], Reminder["General"]!,
  LegalTerms[0]]
```

5.2.8.3 Setting Layout



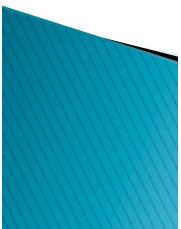
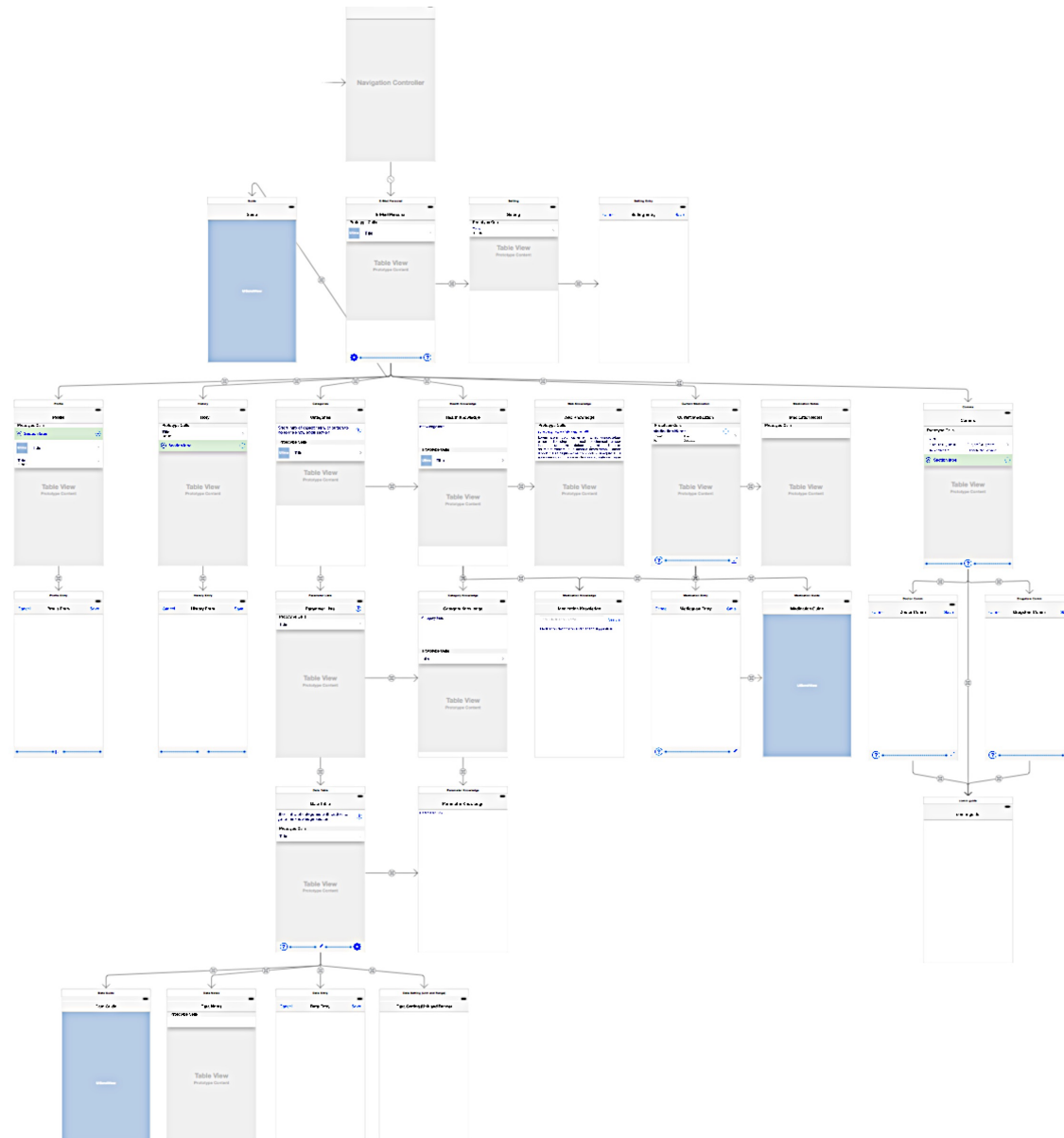
5.2.8.4 Guide Layout

5.3 Preliminary–Layout



5.4 Functional/Operational Checklist

5.5 User Interface View



5.6 Xcode

E-Med Value Verification and debugging

- » Main process to check E-Med Personal and possibly validate it on specific devices

Verification and Debugging

- ▶ Running on iOS simulator
- ▶ Running on iPhone systems
- ▶ Testing by 10 people

E-Med Value Submission and Marketing

- » Steps to make E-Med Value a registered and well-known APP

Submitting

- ▶ App store
 - Distributing ([link](#))
- ▶ Review
 - App review materials ([link](#))
 - App Store Review Guidelines ([link](#))
 - Updates([link](#))

Marketing

▶ Marketing Guide

- Marketing guideline ([link](#))

▶ Marketing Plans

- Single purchase by individuals
- Bulk purchase by doctors, insurance or gyms and drugs Mart
- Providing bulk health particulars(*)
- Partnership with Apple

Additional Info



Future Version's Objectives

1. If it is possible to create interface with current hospital apps. but security is a concern
2. Have the app in different languages (Spanish, Chinese and French). The main concern is about the legal issues related to locations.
3. The system will also incorporate the eye & dental record later on, to get those doctors involved.
4. Using Eye ID (not yet) as access method
5. Something similar to viber for medical communication
6. **Recording** doctor-patient communications (voice, message and Email)

Reviewed websites:

1. All mentioned in “comparison slide”
2. HER websites
 - Athena Health, Practice Fusion
3. Others:
 - Health Apps:
 - How to Use Apple's Health App in iOS 8
 - 5 ways mobile apps streamline patient–doctor communication
 - App design:
 - How much does it cost to develop an app?

Practice Fusion Vs AthenaHealth

- ▶ Practice Fusion was a platform to ease the medical paper works with digitizing. It provides free service since it has advertising section.
- ▶ AthenaHealth was cloud base medical data storing system before entering to Electronic Health/Medical Recording system.
- ▶ Both systems targeted the medical system rather than Patients. They have very basic interface for patients to interact with doctors (to just see the records or checking the appointments and the information flow is from doctor to patient).

Practice Fusion Vs AthenaHealth

Company	PF	AH	E-Med Personal
Focus on	Medical Procedure	Medical Recording	Patient Health
Subscription	Free (advertising)	Fee	Fee
Patient interaction	Finding doctor and appointment management	Appointment management	Full data sharing (particularly from patient to doctor)
Platform	Multiple	Single (Windows)	Single (iPhone)
Op. system	iOS(iPad for doctors) and Windows	Cloud (No OS)	iOS
Acceptance	Medical doctors	Medical system	Patients