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|  | |  | | |
| Project: | | Personal Health Monitoring System (PHMS) | | |
| Team No.: | | 3 | | |
| Class: | | CSE 3310; Spring 2017 | | |
| Module: | | System Requirements Analysis (SRA) | | |
| Deliverable: | | SRA Document | | |
| Version: | | [1.0] | Date: | [03/23/2017] |

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Revision History

| Version number | Date | Originator | Reason for change | High level description of changes |
| --- | --- | --- | --- | --- |
| 1.0 | 03/23/2017 | Prapti Bhaukajee  Saja Abualfoul  Kristoffer Edgard Jorge-Munoz  MD Ibrahim Khalil | Initial draft |  |
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# 1. Introduction and Project Overview

For this project, our group was assigned to develop an android application that will help users maintain various personal health-related data. The PHMS application will be used to keep track of one’s vital signs, daily medicine intake, or following a diet regiment.

# 2. Objectives

## 2.1 BUSINESS Objectives

The following is a list of business objectives:

**Objective 1**: Registration: System will capture the following personal information:

Last name, middle name {optional}, first name

Phone number home, cell

E-mail address

Physical address.

**Objective 2**: Vital signs:

**Objective 3**: Medication:

**Objective 4**: Diet:

**Objective 5**: Notes:

**Objective 6**: Login: System will require all the users to login with a User I.D. and password.

**Objective 7**: Search:

**Objective 8**: Monitoring system:

**Objective 9**: Communication:

**Objective 10**: Data Maintenance:

## 2.2 SYSTEM Objectives

The following is a list of system objectives:

**Objective 1**: System will be an android application for mobile platform

**Objective 2**: SQLite will be used as the database or whatever your database is

**Objective 3**: System will use Java for the programming language

**Objective 4**: User interface will be user friendly

.

.

**Objective M**:

# 3. Project Context Diagram

Context Diagram

Registration

Management Data

Medication

Vital Signs

Communication

Notes

Search

Login

Alert/ Monitoring

Diet

# 4. Systems Requirements

{Provide a Requirements overview by introducing the following requirement sections that correspond with the “user” functionality. There should be a 1-1 correspondence between your requirements sections below, your context diagram, your Business Objectives and your UML diagrams. Keep hardware, database, test data, and android versions to section 5. Add a new section for each category of your requirements. This is the heart of the SRA document, and hence the lengthiest, and should list all requirements of the system. **Please use the designated Requirements Form.**}

## 4.1 “Registration” Requirements

{List requirements}

## 4.2 “Vital Signs” Requirements

{List requirements}

## 4.3 “Medication” Requirements

|  |  |
| --- | --- |
| **Requirement Title:** | Medication |
| **Sequence No:** | 001 |
| **Short description:** | Search medication in the medicine list (Medication exists) |
| **Description:** | The system shall search if the entered medication is in the list of medicines.  If the medicine is in the list, the system shall check notes for any allergy symptoms.  The system shall notify the user of any allergy symptoms.  Inputs:   * Medication name |
| **Pre-Conditions**: | The user must be logged in.  The medication should have been entered. |
| **Post Conditions:** | Notes should have been checked.  The individual/user must have been notified of any existing allergy symptoms. |
| **Other attributes:** | The medication should be in the medicine list. |

|  |  |
| --- | --- |
| **Requirement Title:** | Medication |
| **Sequence No:** | 002 |
| **Short description:** | Search medication in the medicine list (Medication does not exist) |
| **Description:** | The system shall search if the entered medication is in the list of medicines.  If the medicine is not in the list, the system shall update the medicine list.  The system shall add a new note for any allergy symptoms. |
| **Pre-Conditions**: | The user must be logged in.  The medication should have been entered. |
| **Post Conditions:** | The medicine list must have been updated. |
| **Other attributes:** | The medication should not be in the medication list. |

|  |  |
| --- | --- |
| **Requirement Title:** | Medication |
| **Sequence No:** | 003 |
| **Short description:** | Update new prescription |
| **Description:** | After checking notes and updating the medicine list, the system shall update a new prescription for the user.  The system shall include the prescription date, the amount of dose and the time for the medication to be taken. |
| **Pre-Conditions**: | The user must be logged in.  The medicine should be in the list.  The notes should have been checked. |
| **Post Conditions:** | A new prescription should be available for the user. |
| **Other attributes:** | The system shall have an alarm to make sure the user takes the right dose of medication on time. |

## 4.4 “Diet” Requirements

|  |  |
| --- | --- |
| **Requirement Title:** | Diet |
| **Sequence No:** | 001 |
| **Short description:** | Keep Track of user’s food intake. |
| **Description:** | The system shall have a box where the user will enter their diet. The box should be labeled as “Enter Diet”. The user will be able to choose their diet based on their health issues. |
| **Pre-Conditions**: | The user will have signed in already. |
| **Post Conditions:** | The user will select their health issue and diet. |
| **Other attributes:** | There must be a button labeled “Go” that will attempt to record the user’s input. |

|  |  |
| --- | --- |
| **Requirement Title:** | Diet |
| **Sequence No:** | 002 |
| **Short description:** | Contacts a doctor |
| **Description:** | Once the user has selected their diet and health issue, the user will be able to notify the doctor. The doctor will check if the specific diet will be good if not he will notify the user to change their diet. |
| **Pre-Conditions**: | The user should have selected their health issue and diet |
| **Post Conditions:** | Doctor will notify the user if their diet is good or not. |
| **Other attributes:** | There should be a button labeled “notify doctor” that will attempt to contact doctor. |

## 4.5 “NOTES” REQUIRMENTS

4.6 “LOGIN” REQUIREMENTS

## 4.7 “Search” Requirements

|  |  |
| --- | --- |
| **Requirement Title:** | Search |
| **Sequence No:** | 2 |
| **Short description:** | Search for stored or general data |
| **Description:** | There must be a button labeled as “Search” where the user can search for something specific or general. |
| **Pre-Conditions**: | User must be logged in |
| **Post Conditions:** | A list that will display the information needed. |
| **Other attributes:** | N/A |

## 4.8 “MONITORING” Requirements

|  |  |
| --- | --- |
| **Requirement Title:** | Monitoring |
| **Sequence No:** | 001 |
| **Short description:** | Check medicine consumption |
| **Description:** | The system shall check if the medicine has been consumed in time.  The system shall check whether the vital signs are normal or not.  Inputs:   * User Name |
| **Pre-Conditions**: | User must be logged in.  User name must be entered. |
| **Post Conditions:** | System should have known if the vital signs are normal or not. |
| **Other attributes:** | For checking the vital signs, the medicine should have been consumed. |

|  |  |
| --- | --- |
| **Requirement Title:** | Monitoring |
| **Sequence No:** | 002 |
| **Short description:** | Notify emergency contact and doctor |
| **Description:** | The system shall notify the emergency contact of the user and the doctor in case the medicine was not consumed in time.  The system shall notify the emergency contact of the user and the doctor in case the vital signs are not normal. |
| **Pre-Conditions**: | The user must be logged in.  Medicine consumption should have been checked.  Vital signs should have been checked. |
| **Post Conditions:** | The doctor and the emergency contact person should have been informed of any discrepancies. |
| **Other attributes:** | N/A |

## 4.9 “Communication” Requirements

|  |  |
| --- | --- |
| **Requirement Title:** | Communication |
| **Sequence No:** | 001 |
| **Short description:** | Check for phone number |
| **Description:** | User will enter their phone number using numbers 0-9. The system will check if the number provided is valid or not. If number is valid it will add it to the system else, it will ask the user to re-enter their number. |
| **Pre-Conditions**: | User must be logged in. |
| **Post Conditions:** | If number is valid a “valid number” message should pop up. |
| **Other attributes:** | N/A |

|  |  |
| --- | --- |
| **Requirement Title:** | Communication |
| **Sequence No:** | 002 |
| **Short description:** | Check for email address |
| **Description:** | User will enter their email address using a valid email address. The system will check if the email is valid or not. If email address is valid, email will be added. Else, it will ask the user to re-enter their email address. |
| **Pre-Conditions**: | User must enter a valid email address. |
| **Post Conditions:** | If email address entered by the user is valid a “valid email address” message should pop up. |
| **Other attributes:** | N/A |

## 4.10 “Data Maintenance” Requirements

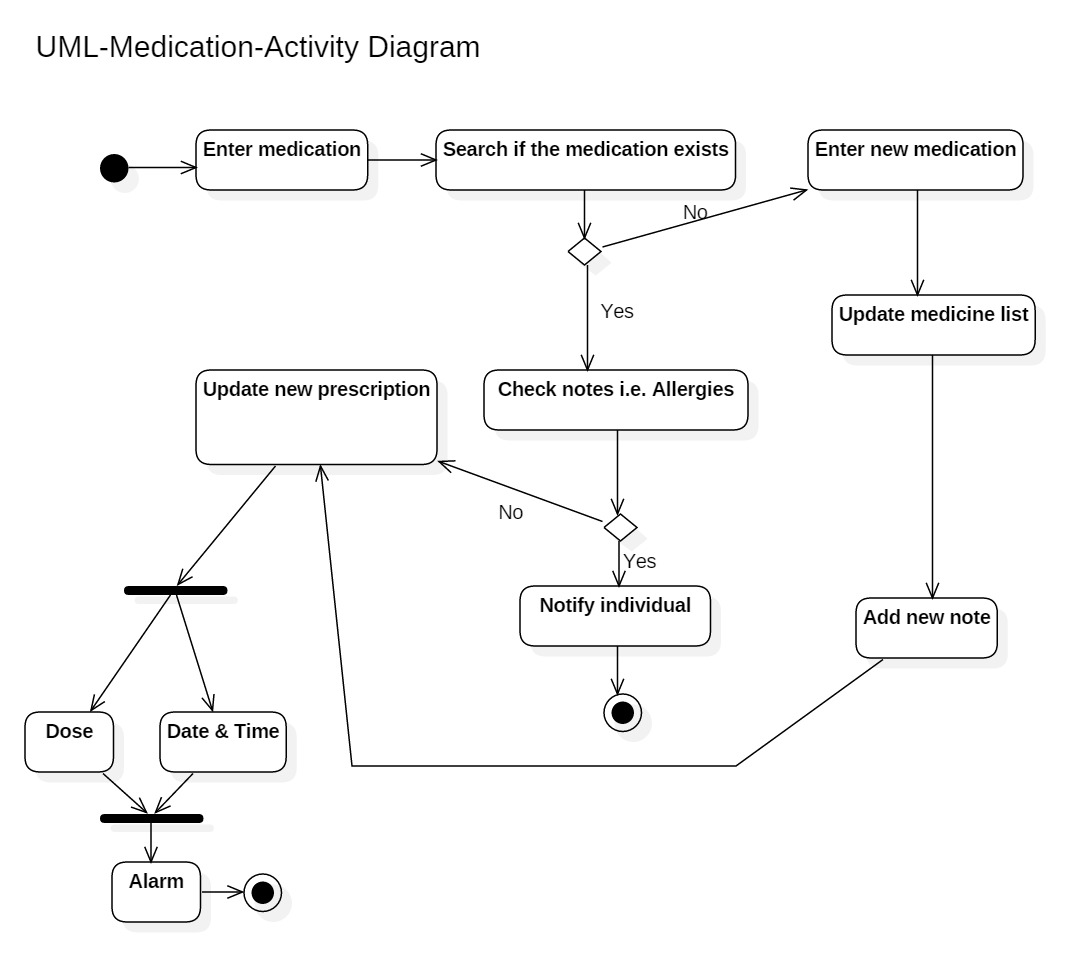
{List requirements}

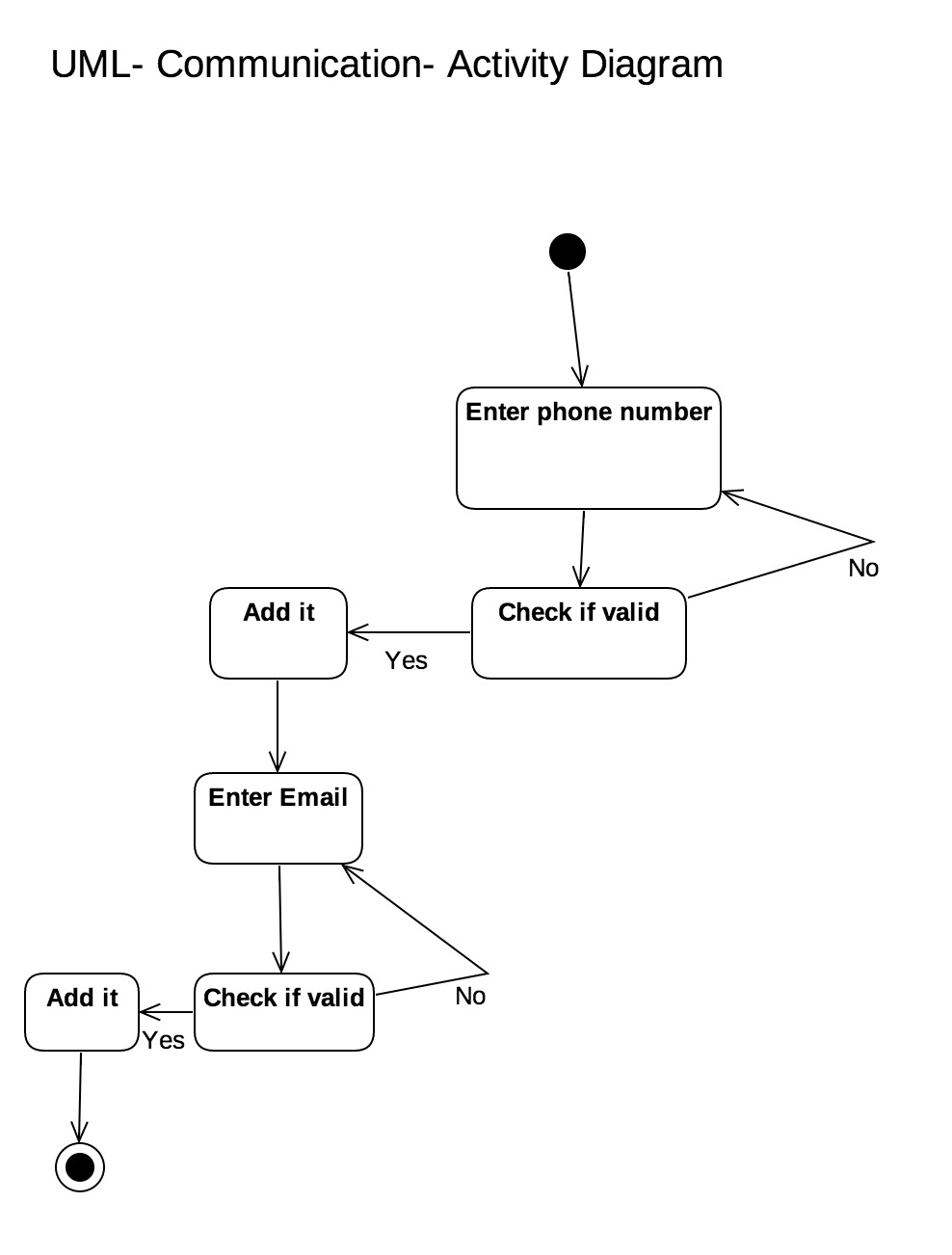
# 5. Software Processes and UML Diagrams

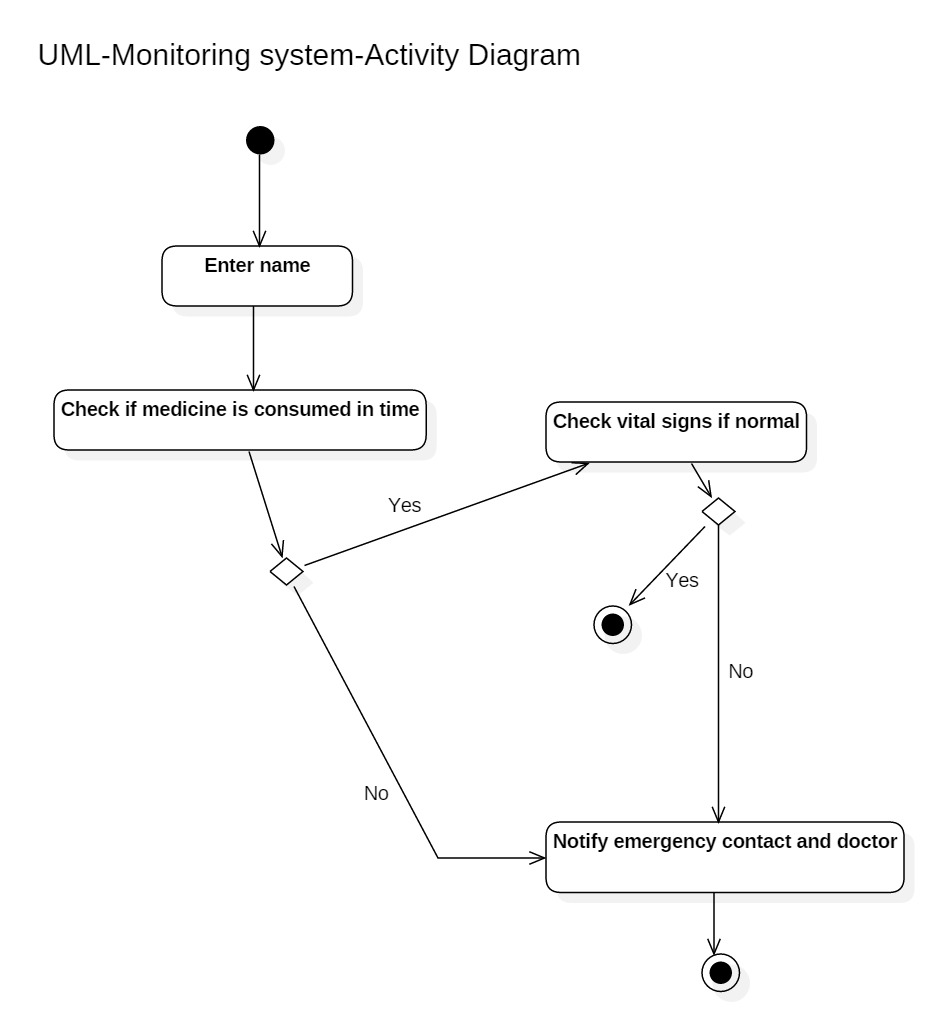
## 5.1 Hardware and Infrastructure

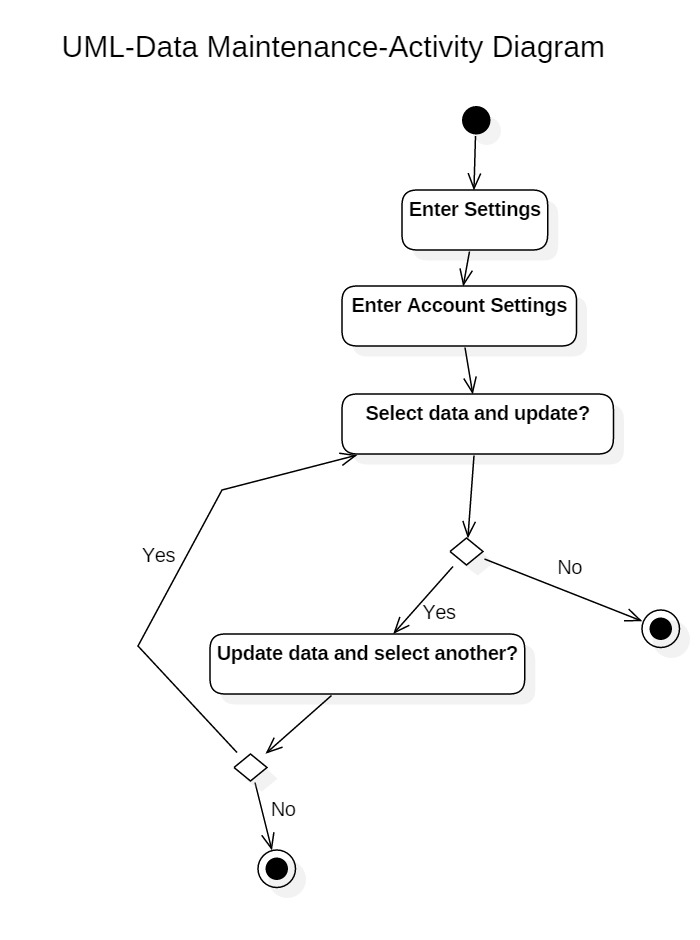
This is a mobile app using android platform.

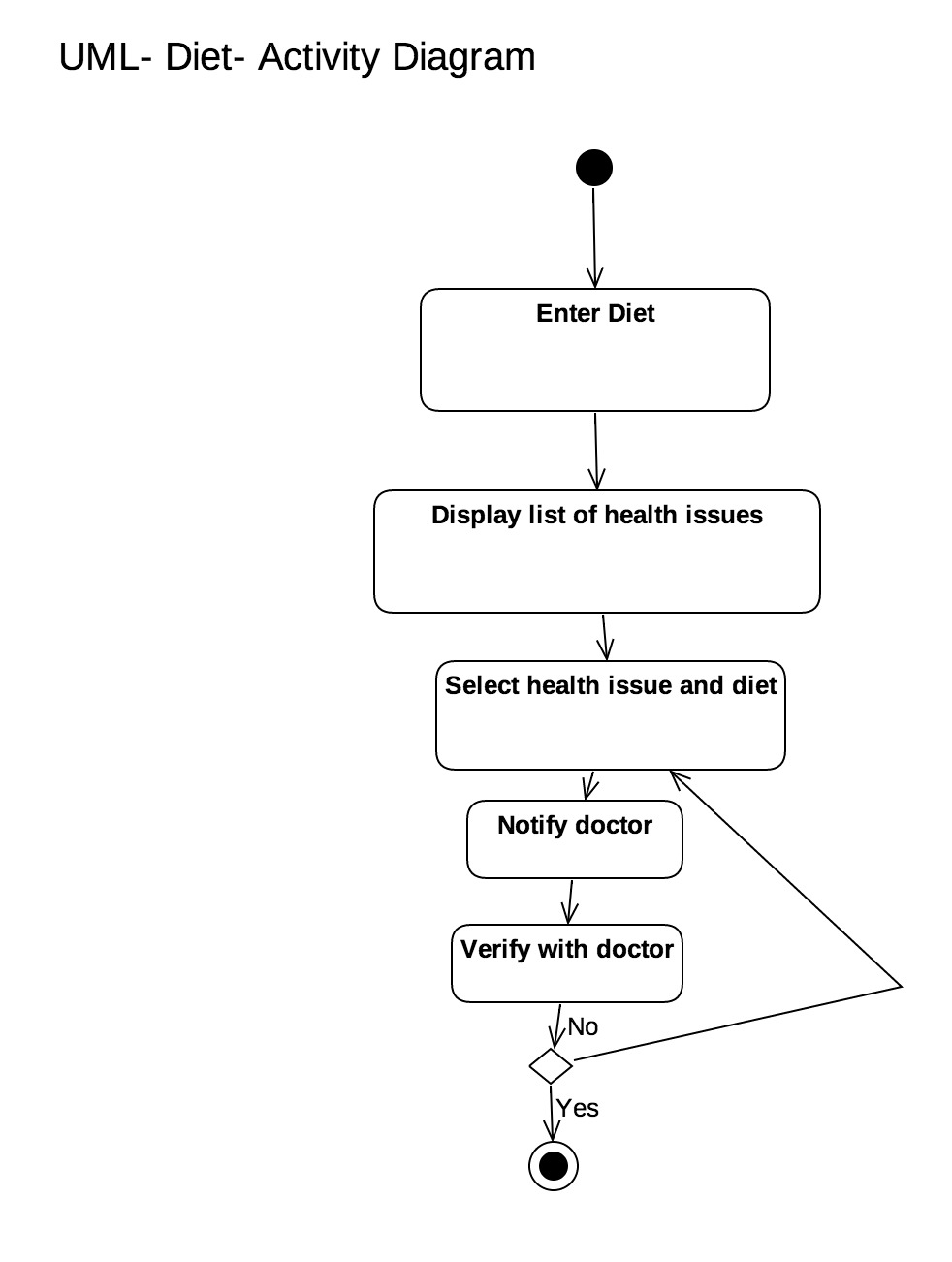
## 5.2 UML Diagrams

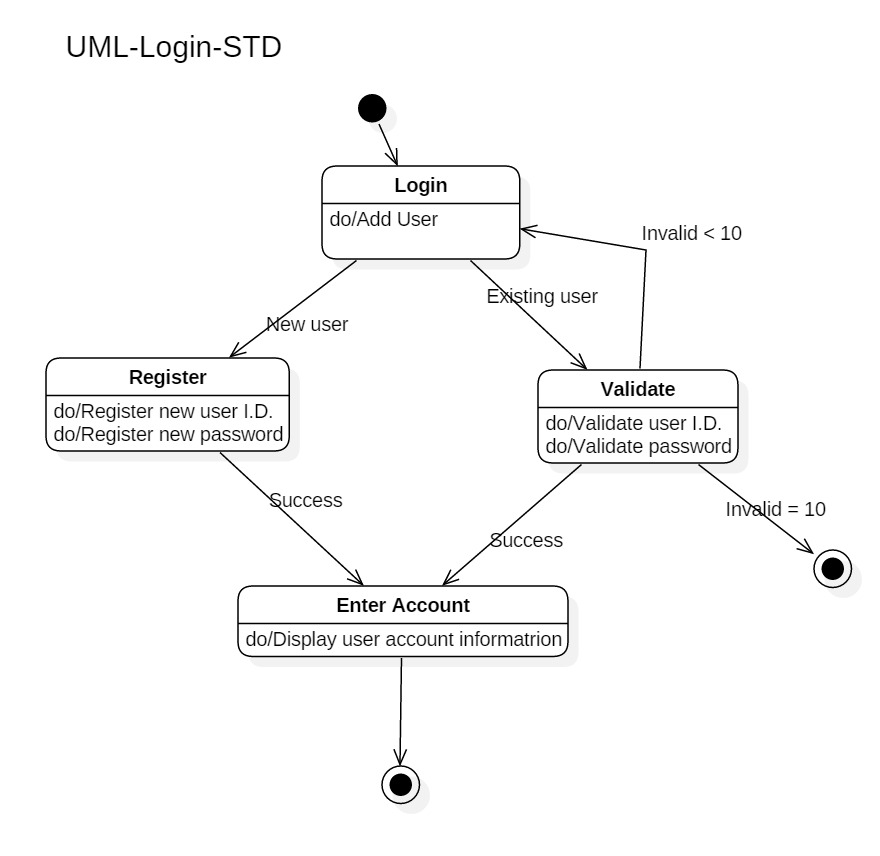


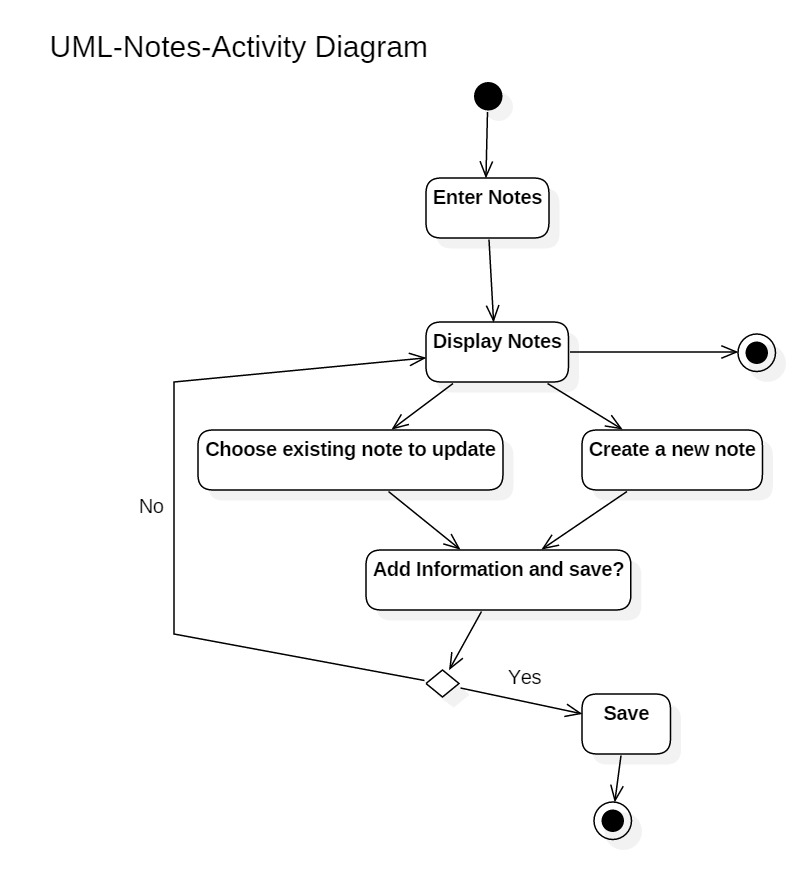


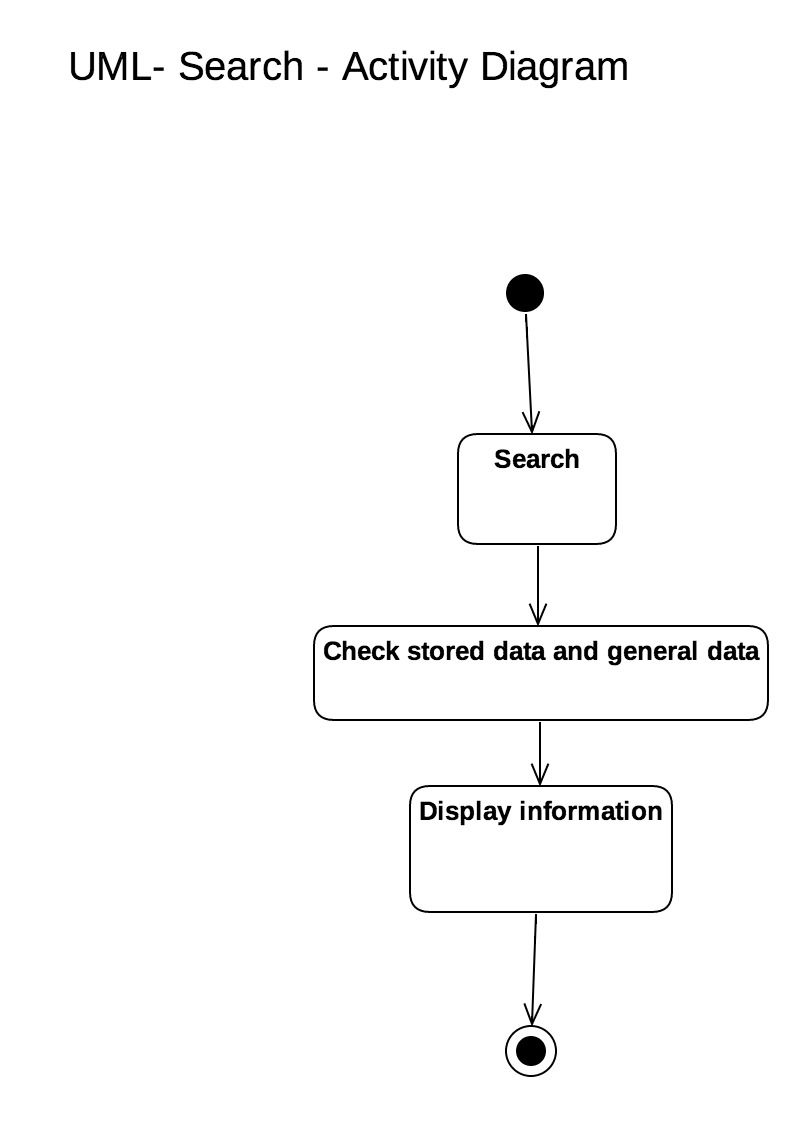


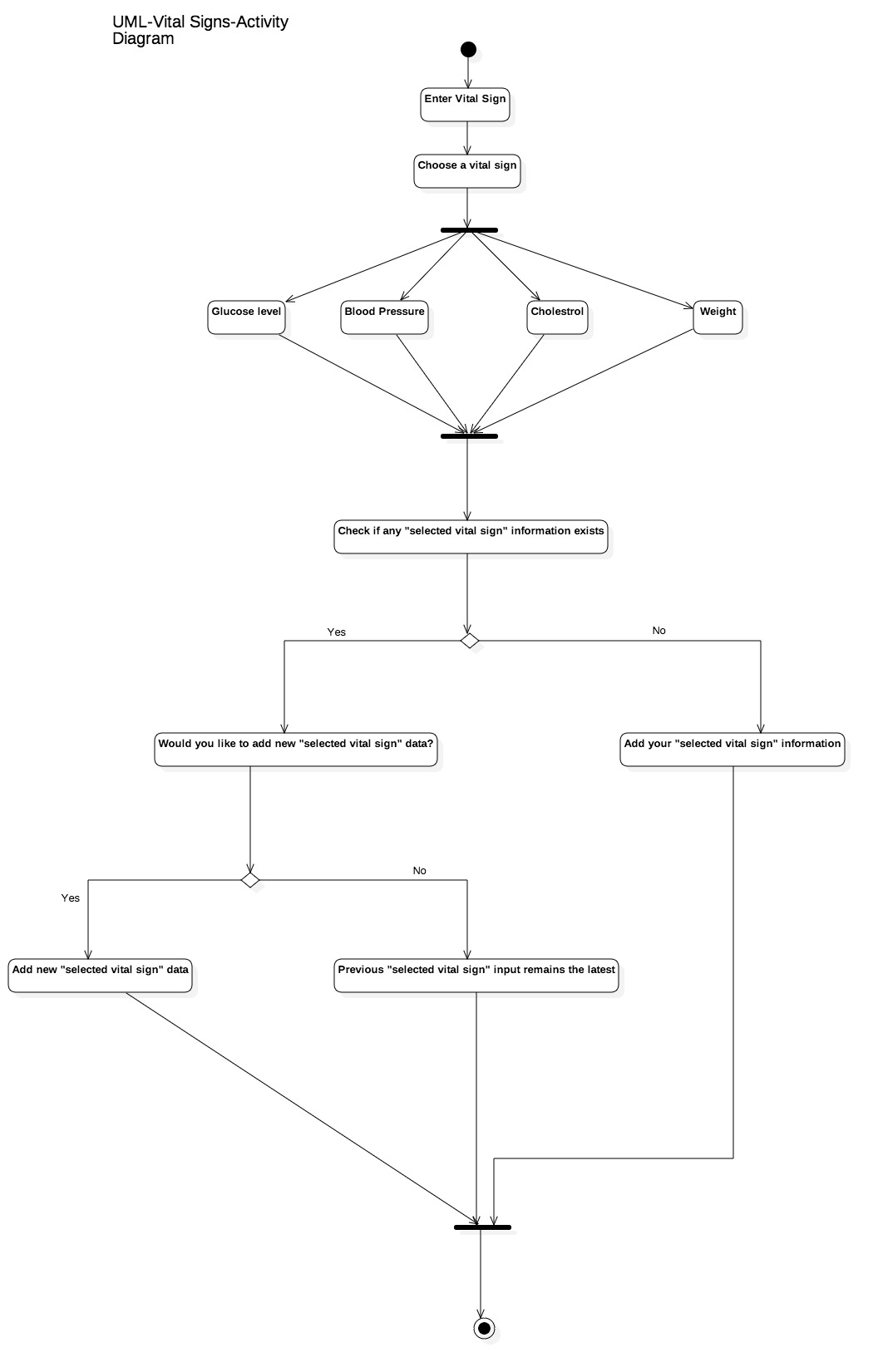


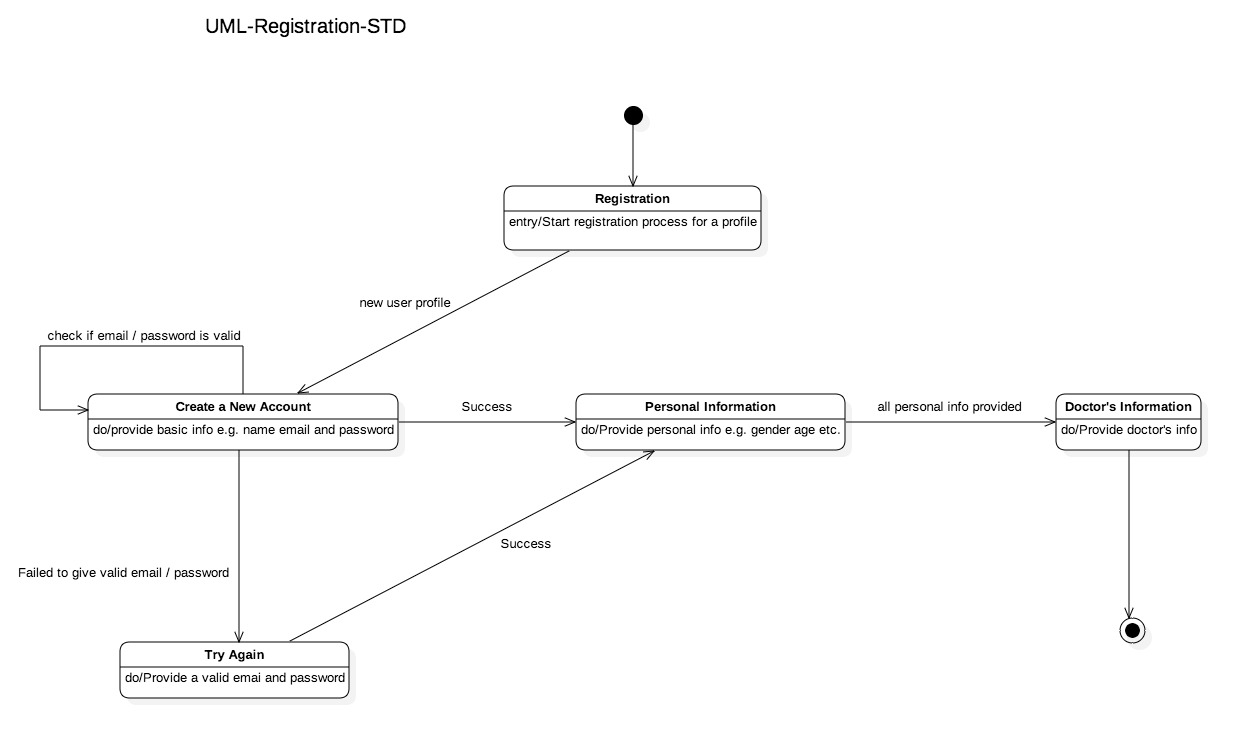












## 5.3 Test Plan

A Test Plan will be provided at a later stage.

## 5.4 Screen Shots

No screen shots available at this time.

# 6. Assumptions and Constraints

## 6.1 ASSUMPTIONS

The following is a list of assumptions:

* Only people older than 18 can use this product
* Only people with not very serious health issues can use this product.

## 6.2 CONSTRAINTS

The following is a list of constraints:

* Team lacks android development skills

## 6.3 Out of Scope material

The following is a list of “out of scope” material:

* Post Project maintenance is not covered

# 7. Delivery and Schedule

{List all tasks/milestones from start of the project to the end with specific dates for both Anticipated Start & End Dates

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task/Milestone Description | Anticipated Start Date | Anticipated End Date | Status | Comments |
| Prepare UML diagrams | 2/1/2016 | 2/23/2017 | Complete | UML diagram delivered  Increment 1 Deliverable |
| SRA document (Includes project objectives, Requirements and UML diagrams) | 3/1/2017 | 3/23/2017 | In Progress | Deliverable will be the SRA document. All stakeholders agree on the content of the SRA by signing in section 8.  Increment 2 Deliverable |
| Design: Design big picture, define format, navigation and functionality to include | 3/21/2017 | 4/13/2017 | To Be Completed (TBC) |  |
| Implementation: Home screen design | 3/28/2017 | 4/13/2017 | TBC |  |
| Implementation: Login and registration | 3/28/2017 | 4/13/2017 | TBC |  |
| **…**  **List all required functionality and tasks**  **…** | ? | ? | ? |  |
| Test case design | 3/21/2017 | 4/13/2017 |  | Increment 3 Deliverable |
| External Documentation (i.e. User Manual) | 4/15/2017 | 5/1/2017 |  |  |
| Project presentation | 4/20/2017 | 5/4/2017 |  |  |
| Final Milestone: project delivery |  | 5/4/2017 |  | Increment 4 Deliverable |

# 8. Stakeholder Approval Form

|  |  |  |  |
| --- | --- | --- | --- |
| Stakeholder Name | Stakeholder Role | Stakeholder Comments | Stakeholder Approval Signature and Date |
| Bahram Khalili | Development Mgr |  |  |
| Akshit Singhal | Project Assistant |  |  |
| Saja Abualfoul | Developer |  |  |
| Prapti Bhaukajee | Developer |  |  |
| Kristoffer Edgard Jorge-Munoz | Developer |  |  |
| MD Ibrahim Khalil | Developer |  |  |

# Appendix:

None.