ITS120L Act 5 - Requirements Analysis

Business Objectives

- 1. To allow thorough, effective, and accessible digital patient monitoring
- 2. To maintain and improve patient experience and satisfaction
- 3. To reduce the workload of doctors and allow them to focus on patient care and wellness

User Requirements

Feature	User Requirement/s
Creating New Users	The system administrator shall be able to create new users to add to the application and its systems.
Viewing User Profile	 The patient shall be able to view their own profile or their doctor's profile to check doctor credentials, important information, and ensure up-to-date information. The doctor shall be able to view their own profile and their patients' profile to check important information and ensure up-to-date information.
Input Prescription	 The patient shall be able to check and print, show, or download their prescription as assigned by the doctor to be able to attain their prescribed medication. The doctor shall be able to input, manage, or delete a prescription prescribed to a patient to ensure proper patient wellness and recovery.
Recommended Diet	 The patient shall be able to check, view, and manage their recommended diet to have a healthier diet, meet nutritional needs, and manage chronic illnesses such as diabetes. The doctor shall be able to manage a patient's recommended diet for the sake of patient wellness and recovery.
Patient Management	 The doctor shall be able to view, edit and manage their patient's profile and record in order to monitor the specific details of their diet, intake, and events on their personal health calendar.
Personal Health Calendar	 The patient shall be able to view their personal health calendar dates and events in order to maintain a set schedule for their health. The doctor shall be able to view a patient's Personal Health Calendar and manage relevant features, i.e., Appointments, Recommended Diet, and Input Prescription.

Daily Intake Monitor	 The patient shall be able to access their doctor's input in order to meet their daily nutrient intake and prescription. The doctor shall be able to view, manage, and edit the daily intake monitor in order to prescribe their patient the daily recommended dose of their nutrients and prescription medication.
Daily Meals Checklist	 The patient shall be able to check and mark their recommended meals of the day in order to satisfy their prescribed daily nutritional intake by their doctor. The doctor shall be able to manage and edit the daily meals checklist in order to prescribe recommended diet and intake for their patient.
Appointments	 The patient shall be able to view and see their scheduled appointments in order to meet with their assigned doctor for any concerns that need to be addressed. The doctor shall be able to schedule appointments with their patient either face-to-face or online in order to address any concerns regarding their current health and welfare.
Login for Users	The user shall be able to login into the system as a patient, doctor, or system administrator to view the features of the site as a patient or manage information and features as a doctor and system administrator.

Functional Requirements

Creating New Users

- This function allows system administrators to create new users.
- Creating a patient requires the following details:
 - First Name
 - Last Name
 - User Password
 - Confirmed User Password
 - E-mail Address
 - Contact Number
 - Insurance Provider
 - Senior Citizen Status
 - Person with Disability (PWD) Status
 - Chronic Illnesses / Chronic Health Conditions
- Creating a doctor requires the following details:
 - First Name
 - Last Name
 - User Password

- Confirmed User Password
- E-mail Address
- Contact Number
- Place of Employment
 - Address
 - Office Room Location (Optional)
 - Contact Number of Place of Employment
- Healthcare Credentials
- Medical Field / Medical Specialty
- Years of Experience

View User Profile

- This function allows a patient to view their own profile. If a patient wishes to change or update their profile information, they may contact their doctor. A patient can also view their doctor's profile.
- This function allows a doctor to view their own profile and their patients' profiles.

Input Prescription

- This function allows a patient to see the prescription a doctor has given to them.
 Users will then be able to show, download, or print this prescription so they can present it to a reputable pharmaceutical to get their prescribed medicine.
- This function allows doctors to prescribe a patient with medicine. The form available to them will be professional-looking and automatically attach their e-signature, their name, and hospital or clinic information to the prescription.

• Recommended Diet

- This function allows a patient to see the recommended diet that the doctor has set for them. Users will be able to see specific items or categories of foods that they are suggested to take during meals and will include food groups that are detrimental and that they should avoid, e.g. recommended diet for people with chronic illnesses or conditions like diabetes or high blood pressure.
- This function allows doctors to provide a patient with their recommended diet.
 The form available to them will include lists that they can add with specific food items and categories along with a minimum and maximum limit. It can also include comments.

• Patient Management

 This function allows doctors to manage patients. This includes functions for creating, editing, or archiving user profiles and information when needed. This function also allows them to set and manage the required information for a patient's Personal Health Calendar.

Personal Health Calendar

This function allows a patient to view their own personal health calendar. This
marks and shows dates for events, required monitors, and/or required checklists

for a specific user. It is connected to and shows the dates of the following features:

- Daily Intake Monitor
- Daily Meals Checklist
- Appointments

Daily Intake Monitor

This function allows a patient to track and be reminded of their daily medication intake. This function tracks and shows a patient's required medication/s on a day-by-day basis. A patient can then check or confirm if they have taken their required medication/s for the day. The system will remind the patient to take their medication if they haven't done so already.

• Daily Meals Checklist

- This function allows a patient to see and fulfill their daily meals checklist. The checklist will include foods that fall under the prescribed diet by the doctor. The form will have details regarding the food, its nutrients, and recommended time to eat. A patient can check and mark that they have eaten a specified meal. The system will remind the patient if they have failed to meet the daily nutritional intake prescribed by their doctor or have missed a meal if it was required. Alternatively, a patient may also have a less defined diet, with the checklist instead tracking the intake of recommended or harmful food; this is useful for patients with chronic conditions that are affected by certain food intake, such as diabetes.
- This function allows a doctor to view, manage, or edit a patient's daily meals checklist. This means adding recommended meals, restrictions, and food per day or in general. There are automatic food recommendations or templates for patients with certain chronic illnesses to lessen a doctor's workload.

Appointments

- This function allows a patient to see and manage their assigned appointments.
 This information will also appear in the Personal Health Calendar.
- This function allows a doctor to view, set, manage, or edit their assigned patients' appointments. The function is highly dependent on the patient management function in which doctors would directly give appointments to patients. The following details are needed to make a scheduled appointment:
 - Date and Time of the Appointment
 - Physical Appointment or Online Appointment
 - (If physical appointment) Hospital or Clinic Address and Assigned Room
 - (If online appointment) Meeting Link
 - Assigned Doctor
 - Patient Name
 - Reason for Visit
 - Notes

• Login for Users

 This function allows a user to log in to the system. The system automatically detects if the user is a patient or doctor / system administrator.