

Smart **Nutrition** System

Siemens technical assignment

By: Youssef Nagy Kamal

Technologies used: QT c++ (Widgets GUI , Network Model), SQLite

How to use the System:

Launch Steps “Server Side” (Runs First):

1. Open ServerSide_App Folder and Run the “AppRun” Which would Launch The Server Side and should be greeted with a successful connection to SQLite database.

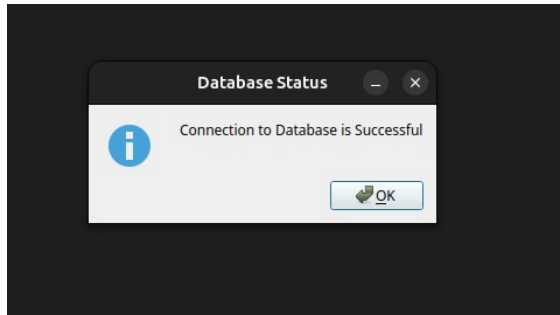


Figure 1: DataBase Connection Success

2. then, the main window for the server side shows the current users and their data and automatically gets updated whenever a new user signs-up.

Server

Personal Info

Username

youssef

Password

pass

Full Name

full name

Age

18

Gender

M

User Average Feedback

User BMI

User Blood Pressure

Current diet plan

Sun: Rice Legumes Cookies Spinach
Mon: Quinoa Beef Ice Cream Carrots
Tues: Rice Chicken Cookies Carrots
Wed: Quinoa Legumes Ice Cream Broccoli
Thurs: Rice Chicken Ice Cream Bell Peppers
Fri: Oats Eggs Brownies Broccoli
Sat: Oats Tofu Chocolate Spinach

Users

Pola100

Pola98

notyoussef

youssef

yousseffdf

youssefghgh

youssefs

youssefsad

youssefss

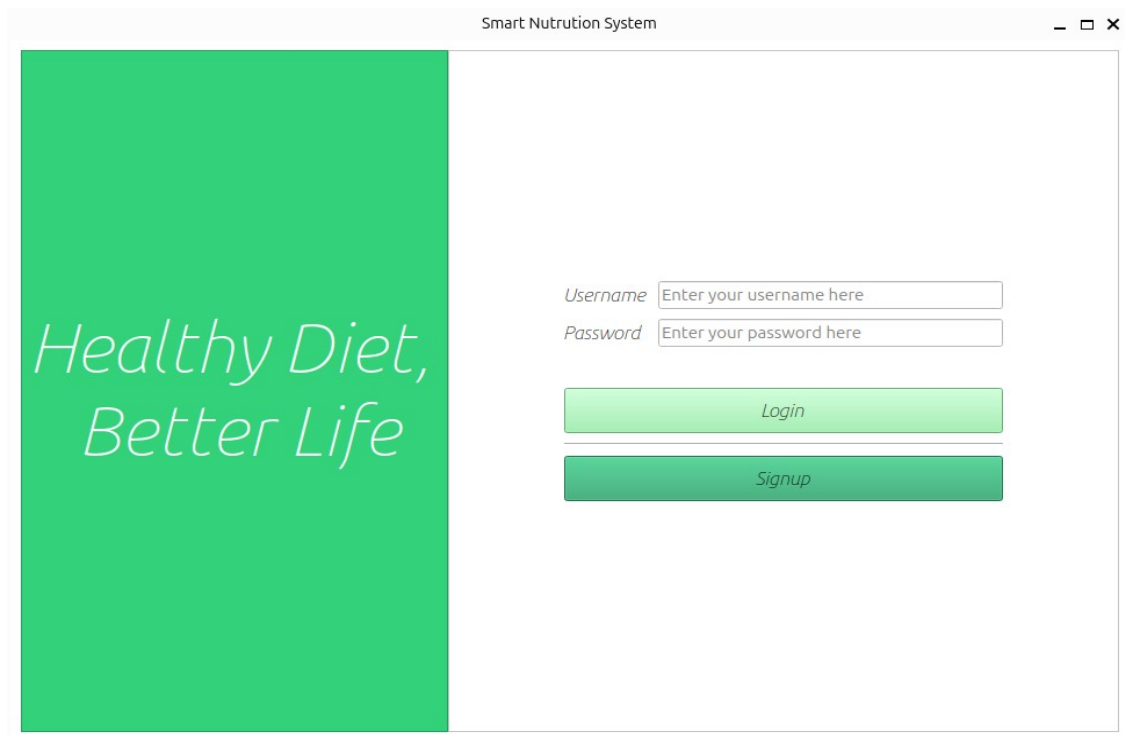
Users average BMI

Users Average Feedback

3. To retrieve a user information and current diet plan, Simply, press the client from client list in right corner.

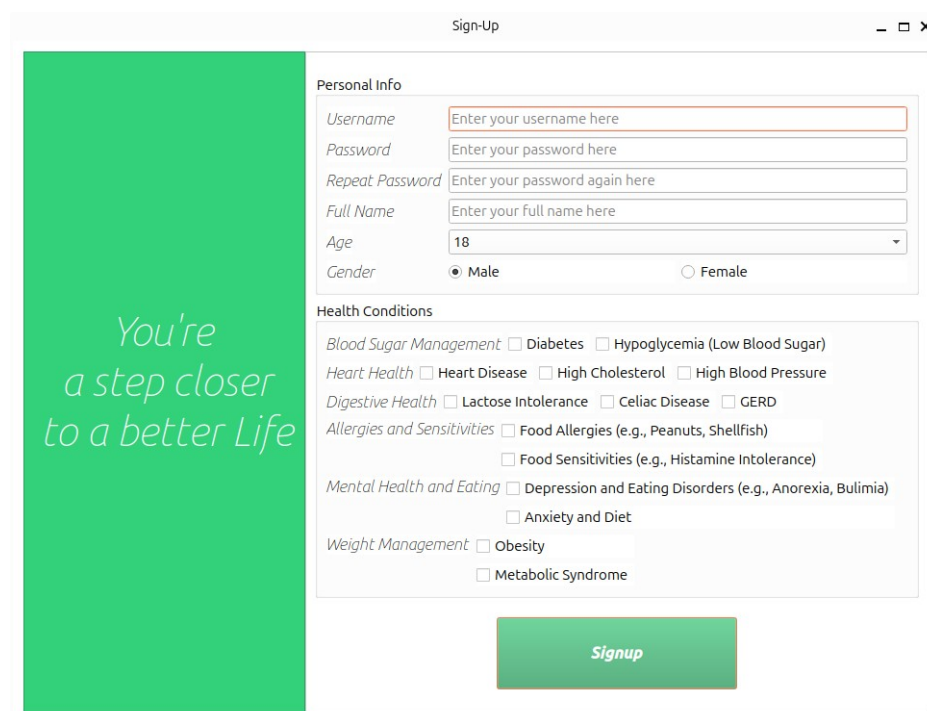
Launch Steps “Patient Side”:

1. Open Patient_app folder and Run executable and Welcome screen should pop up where you can either choose to Sign in or Create a new account.



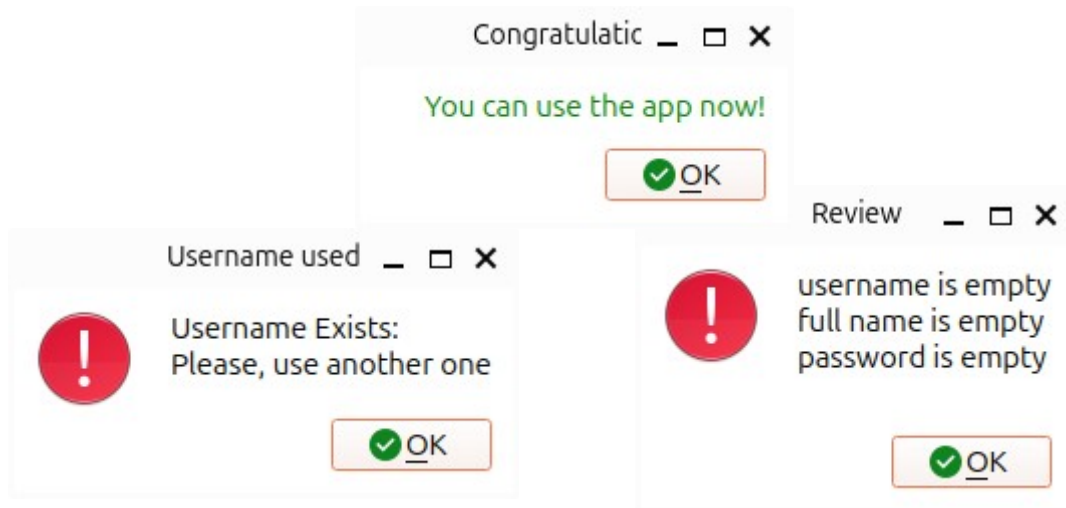
The image shows a window titled "Smart Nutrition System". On the left is a green vertical banner with the text "Healthy Diet, Better Life" in white. On the right is a white area with login and signup options. It includes two input fields: "Username" with placeholder text "Enter your username here" and "Password" with placeholder text "Enter your password here". Below these are two buttons: a light green "Login" button and a darker green "Signup" button.

2. Upon Clicking New Signup, a new Sign-up Window would pop-up to fill with patient information.



The image shows a window titled "Sign-Up". On the left is a green vertical banner with the text "You're a step closer to a better Life" in white. On the right is a white area with a form. The form is divided into two sections: "Personal Info" and "Health Conditions". The "Personal Info" section includes input fields for "Username" (placeholder: "Enter your username here"), "Password" (placeholder: "Enter your password here"), "Repeat Password" (placeholder: "Enter your password again here"), "Full Name" (placeholder: "Enter your full name here"), "Age" (a dropdown menu with "18" selected), and "Gender" (radio buttons for "Male" and "Female", with "Male" selected). The "Health Conditions" section includes several checkboxes: "Blood Sugar Management" (Diabetes, Hypoglycemia (Low Blood Sugar)), "Heart Health" (Heart Disease, High Cholesterol, High Blood Pressure), "Digestive Health" (Lactose Intolerance, Celiac Disease, GERD), "Allergies and Sensitivities" (Food Allergies (e.g., Peanuts, Shellfish), Food Sensitivities (e.g., Histamine Intolerance)), "Mental Health and Eating" (Depression and Eating Disorders (e.g., Anorexia, Bulimia), Anxiety and Diet), and "Weight Management" (Obesity, Metabolic Syndrome). At the bottom right of the form is a green "Signup" button.

- After clicking Create, the account either gets created if the information provided and get a dialogue confirming the creation of the new account otherwise you get something went wrong message.



- Following the Creation, The patient can sign-in and open his account.

Patient - Home Page

Let's get you FIT!

Calculate BMI

Height	1	m	Calculate	Your BMI	BMI Result
Weight	30	kg		Condition	Condition Result

Blood Pressure Analysis

Systolic pressure	40	Upper Number	Analyze	Condition	Condition Result
Diastolic pressure	40	Lower Number			

Diet Plan

Create new Diet Plan

NOT Found

1 Give Feedback

5. The user can choose to either calculate his BMI from height and weight, get Blood Pressure condition or get a new balanced diet plan and give the plan a feedback score.

Patient - Home Page

Let's get you FIT!

Calculate BMI

Height1.7 m

Weight122 kg

Calculate

Your BMI 42.2

ConditionObese

Blood Pressure Analysis

Systolic pressure115 Upper Number

Diastolic pressure105 Lower Number

Analyze

Condition(HYPERTENSION) STAGE 2

Diet Plan

Create new Diet Plan

NOT Found

Patient - Home Page

Let's get you FIT!

Calculate BMI

Height2.5 m

Weight101 kg

Calculate

Your BMI 16.2

ConditionUnderweight

Blood Pressure Analysis

Systolic pressure105 Upper Number

Diastolic pressure78 Lower Number

Analyze

ConditionNORMAL

Diet Plan

Create new Diet Plan

Sun: Quinoa Legumes Cookies Carrots
Mon: Rice Eggs Cake Carrots
Tues: Rice Tofu Cake Broccoli
Wed: Rice Legumes Chocolate Bell Peppers
Thurs: Bread Tofu Ice Cream Spinach
Fri: Bread Tofu Cake Cauliflower
Sat: Rice Legumes Cookies Bell Peppers

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Give Feedback

REFERENCE:

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)	and/or	DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120 – 129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 – 139	or	80 – 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

BMI =

Adult BMI

BMI	Status
≤ 18.4	Underweight
18.5 - 24.9	Normal
25.0 - 39.9	Overweight
≥ 40.0	Obese