



DATABASE APPLICATION DEVELOPMENT

SSK3408-8

MINI PROJECT TITLE:

WEIGHT LOSS PROJECT (KATODIET)

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1.0 Introduction

1.1 Objectives

Obesity is one of the main factors that contributes to health problems. Individuals tend to be distracted with a ton of workload and choose fast-food as the meal. Without any guide and constriction in food daily intake, health issues related to obesity will increase and lead to the top world health complication. Hence, our group has created the solution to prevent the widespread issues.

“KatoDiet” is the web application that will provide the user information about calories intake and calories burn during exercise. The user will be asked to enter their daily food intake and “KatoDiet” will show the total calorie intake per day for a user.

1.2 Purpose

The proposal is to present the weight loss tracker that will track the user in weight control. It also will help the user to achieve the weight target. The website also includes a BMI Calculator which calculates the BMI and ideal weight. The tracker will allow the user to track daily weight and calculate the BMI.

1.3 Website Functionality

- i) User can sign up and log in the system
- ii) User need to insert their current weight and height to calculate BMI
- iii) User can track their calories intake daily
- iv) User can track their calorie burn while doing exercises.
- v) User can choose to edit if there are some error while input the information
- vi) User can choose to delete their data
- vii) User can logout from the system

2.0 Entity Relationship Diagram (ERD)

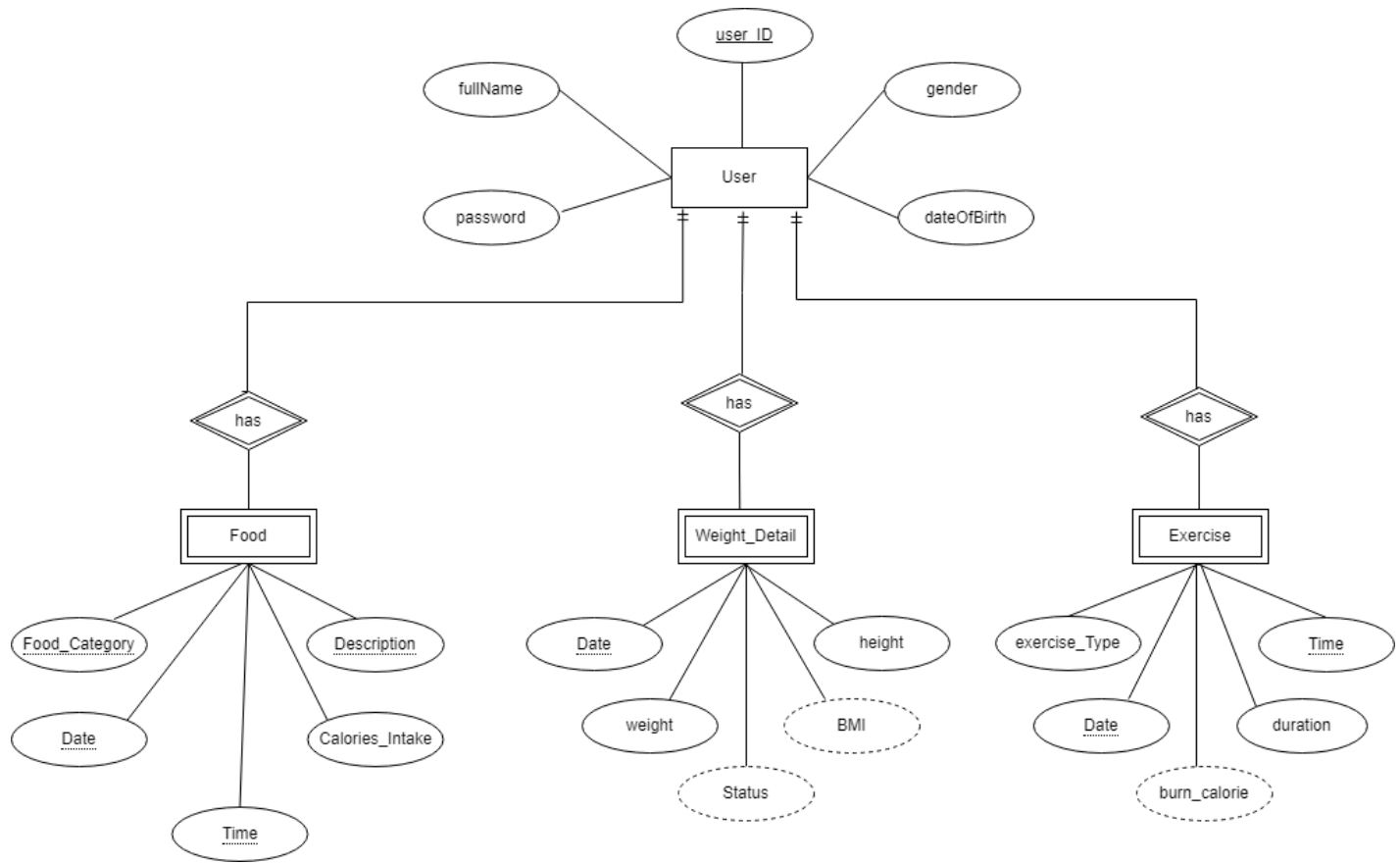


Figure 2.1 shows the Entity Relationship Diagram for "KatoDiet" web application. There are four entities which are 'user', 'food', 'weight_detail' and 'exercise' .

3.0 Mapping

3.1 User Table

<u>USERID</u>	FULLNAME	PASSWORD	DATEOFBIRTH	GENDER
---------------	----------	----------	-------------	--------

Table 3.1 shows that user table consist of userid, fullname, password, dateofbirth, and gender

3.2 Food Table

<u>USERID</u>	<u>DATE</u>	<u>FOOD_CATEGORY</u>	<u>DESCRIPTION</u>	<u>TIME</u>	CALORIES_INTAKE
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Table 3.2 shows that food table consist of userid, date, category of food, description,time and calories intake

3.3 WeightDetail Table

<u>USERID</u>	<u>DATE</u>	WEIGHT	HEIGHT
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Table 3.3 shows that weight detail table consist of userid, date, weight, and height

3.4 Exercise Table

<u>USERID</u>	<u>DATE</u>	<u>TIME</u>	EXERCISETYPE	DURATION
---------------	-------------	-------------	--------------	----------

Table 3.4 shows that exercise table consist of userid, date, time, type of exercise, and exercise duration

4.0 Metadata

4.1 Table Name : User

Field Name	Field Type	Constraint	Description
USERID	VARCHAR2(20)	Primary Key	- Primary key of the table user and for user validation
FULLNAME	VARCHAR2(100)		User name
PASSWORD	VARCHAR2(20)		For user validation
DATEOFBIRTH	VARCHAR2(20)		User's date of birth - to get the user's age
GENDER	VARCHAR2(6)		M - male F - female

Table 4.1 shows the metadata of user consist of field name, field type, constraint and description

4.2 Table Name : Food

Field Name	Field Type	Constraint	Description
FOODUSERID	VARCHAR2(20)	Foreign Key refer user (UserID)	Foreign key referencing user table
FOODDATE	VARCHAR2(20)	Partial key	Date of food intake
FOODCAT	VARCHAR2(50)	Partial key	Category of food (e.g. carbohydrate)
FOODTIME	VARCHAR2(20)	Partial Key	Time of Food
FOODDESC	VARCHAR2(50)	Partial key	Description from the food category (e.g. rice)
FOODCALORIES	NUMBER		Calories for each food

Table 4.2 shows the metadata of food consist of field name, field type, constraint and description

4.3 Table Name : WeightDetail

Field Name	Field Type	Constraint	Description
WEIGDETUSERID	VARCHAR2(20)	Primary key and foreign Key refer user (UserID)	Foreign key referencing table user
WEIGDETDATE	VARCHAR2(20)	Partial Key	Primary Key for table Food
WEIGDETWEIGHT	NUMBER		Weight of user
WEIGDETHEIGHT	NUMBER		Height of user

Table 4.3 shows the metadata of weight details consist of field name, field type, constraint and description

4.4 Table Name : Exercise

Field Name	Field Type	Constraint	Description
EXERCISEUSERID	VARCHAR2(20)	Primary key and foreign Key refer user (UserID)	Foreign key referencing table user
EXERCISETIME	VARCHAR2(20)	Partial Key	Time of exercising
EXERCISEDATE	VARCHAR2(20)	Partial Key	Date of exercising
EXERCISETYPE	VARCHAR2(50)		Type of exercising
EXDURATION	VARCHAR2(50)		Duration to count calories burnt

Table 4.4 shows the metadata of exercise consist of field name, field type, constraint and description

5.0 Project Interfaces

5.1 Sign Up Interface



The sign up interface for new users to create an account. It features a large purple square on the left with the text "KATODIET" in white, and "FITNESS.WEIGHT.NUTRITION" below it. On the right, there is a "Register" form with a circular logo at the top. The form includes fields for Full Name, User ID, Password, Confirm Password, Date Of Birth, and Gender. A "REGISTER" button is at the bottom, and a link "already have an account? Sign In!" is below it.

KATODIET
FITNESS.WEIGHT.NUTRITION

Register

Full Name:
enter your full name

User ID:
enter your user ID here

Password:
enter password here

Confirm Password:
enter password here

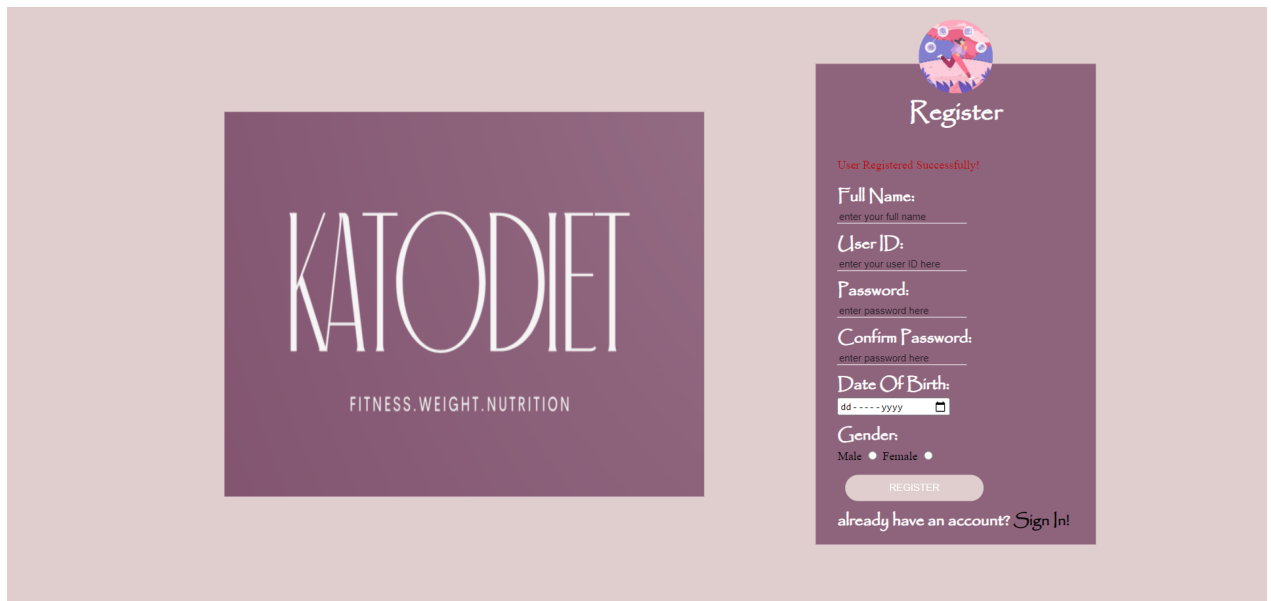
Date Of Birth:
dd - - - - - yyyy

Gender:
Male • Female •

REGISTER

already have an account? [Sign In!](#)

Figure 5.1.1 shows the sign up interface for new users to create an account.



The sign up interface after a user successfully registered an account. It features a large purple square on the left with the text "KATODIET" in white, and "FITNESS.WEIGHT.NUTRITION" below it. On the right, there is a "Register" form with a circular logo at the top. The form includes fields for Full Name, User ID, Password, Confirm Password, Date Of Birth, and Gender. A "REGISTER" button is at the bottom, and a link "already have an account? Sign In!" is below it. A success message "User Registered Successfully!" is displayed at the top of the form.

KATODIET
FITNESS.WEIGHT.NUTRITION

Register

User Registered Successfully!

Full Name:
enter your full name

User ID:
enter your user ID here

Password:
enter password here

Confirm Password:
enter password here

Date Of Birth:
dd - - - - - yyyy

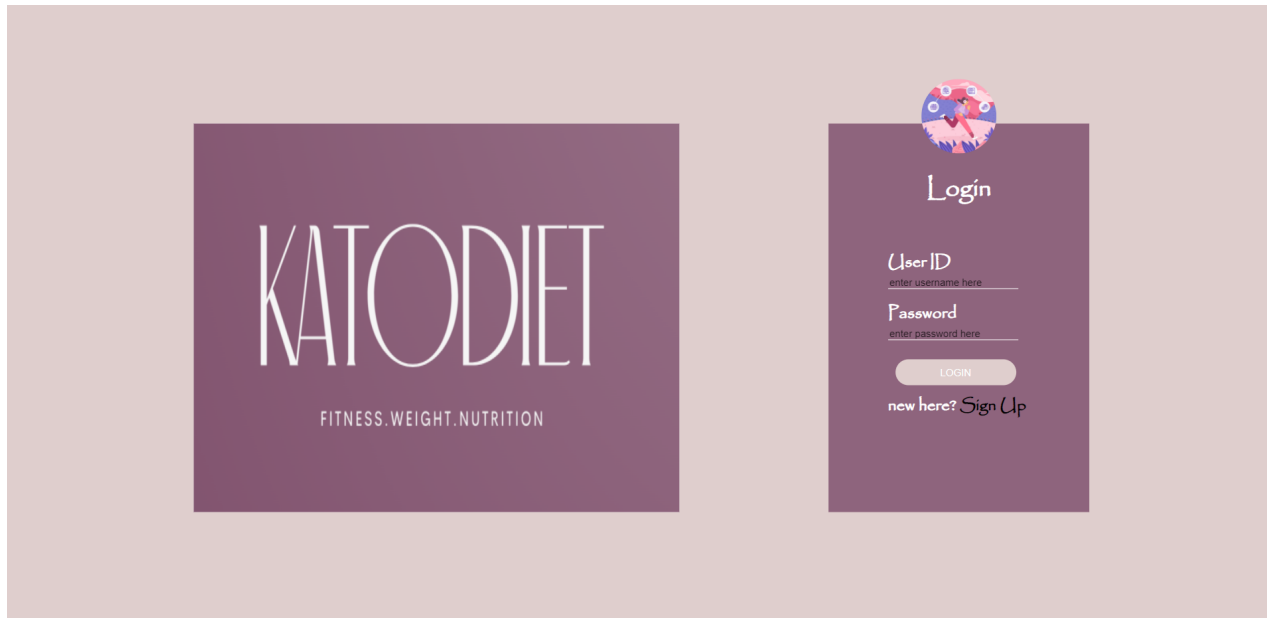
Gender:
Male • Female •

REGISTER

already have an account? [Sign In!](#)

Figure 5.1.2 shows the sign up interface after a user successfully registered an account.

5.2 Login Interface



5.2.1 shows the login interface for the existing users.

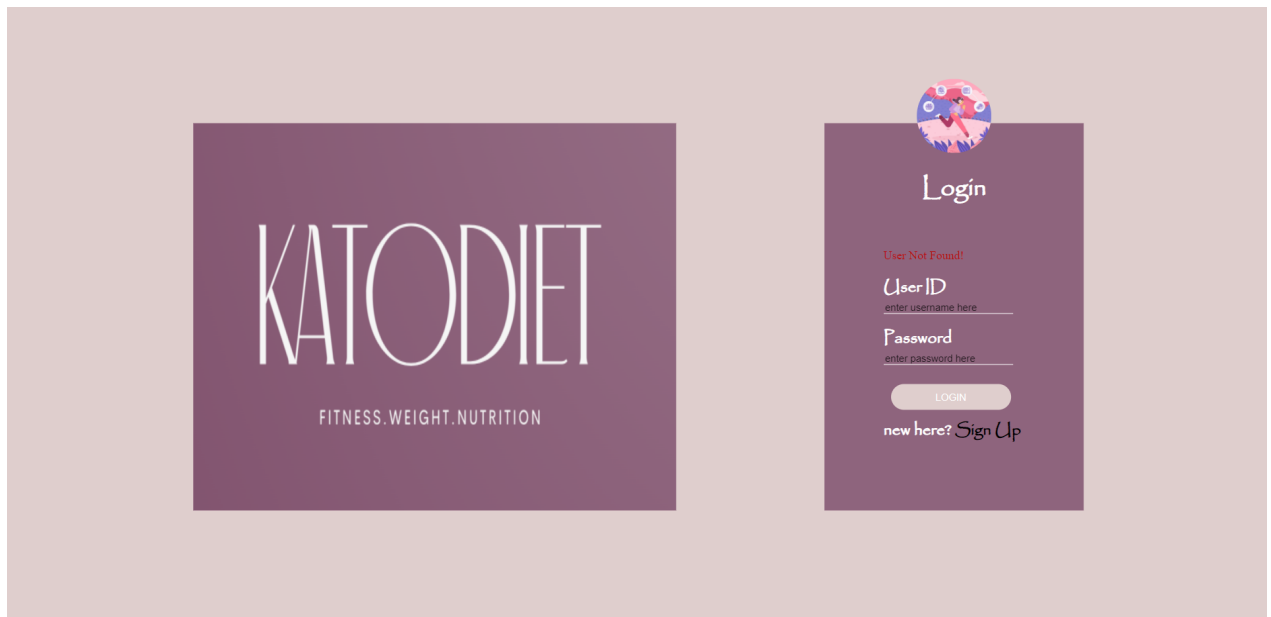


Figure 5.2.2 shows the login interface is the user inserted the wrong or invalid password.

5.3 Home Interface

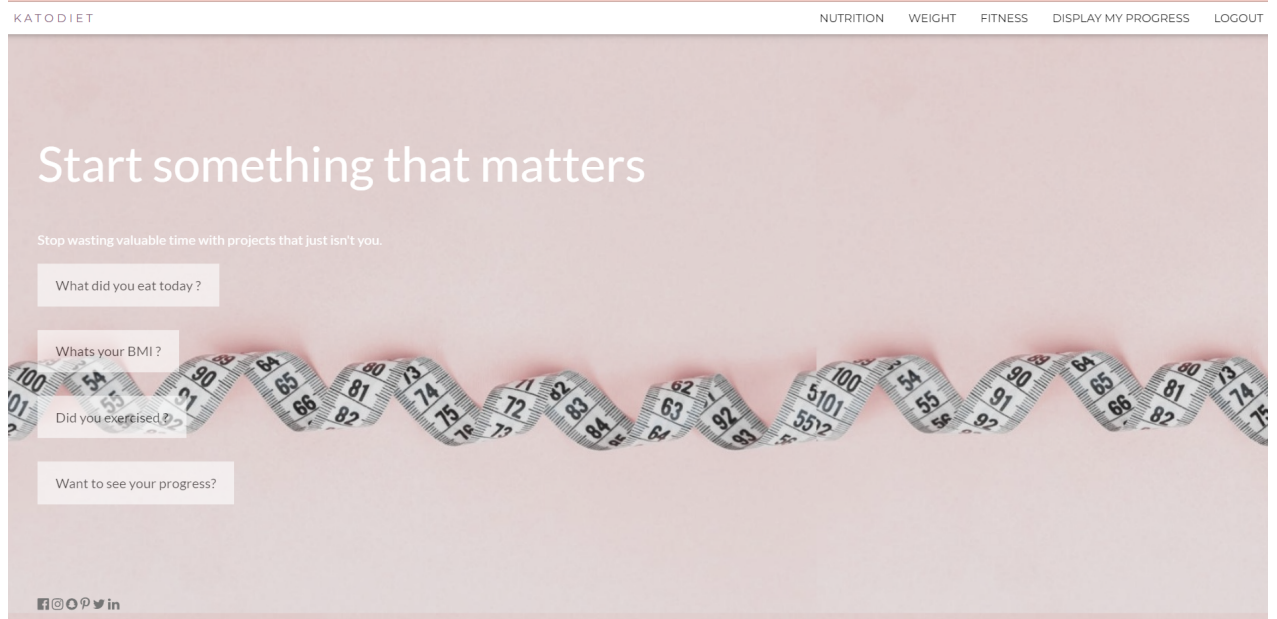


Figure 5.3 shows the home page of KatoDiet's interface

5.4 Food Interface

I've eaten today!
Please input food details here

FOOD	AMOUNT	TOTAL CALORIES
Apple	1 medium	80
Apicots	3 medium	60
Banana	1 medium	110
Blackberries	1/2 cup	37
Blueberries	1/2 cup	41
Cantaloupe	1/4 medium	50
Cherries	1 cup	90
Dates	5 pieces	120
Figs	1 medium	37
Grapefruit	1/2 medium	60
Grapes	1 cup	60
Guava	1 medium	45
Kiwifruit	2 medium	100
Lemon	1 average	15
Lime	1 average	20
Mango	1/2 medium	70
Nectarine	1 medium	70
Orange	1 medium	70
Papaya	1/2 medium	70
Peach	1 medium	40
Pear	1 medium	100
Persimmon	1 medium	32
Pineapple	2 slices	65
Plums	2 medium	80
Prunes	1/4 cup	110
Raisins, seedless	1/4 cup	107
Raspberries	1 cup	50
Strawberries	8 medium	45
Tangerine	1 medium	50
Watermelon	1 cup	40
Watermelon	1 slice, 10" diam.	150

Food Intake Information

User ID*

Date*

Time*

Food Category*

Food Name

Calories Intake*

Figure 5.4.1 shows the food interface if the user clicks 'nutrition' at the home page. Food interface displays user id, date, time, food category, food name, and calories intake.

I've eaten today!

Please input food details here

FOOD	AMOUNT	TOTAL CALORIES
Apple	1 medium	80
Apricots	3 medium	60
Banana	1 medium	119
Blackberries	1/2 cup	37
Blueberries	1/2 cup	41
Cantaloupe	1/4 medium	50
Cherries	1 cup	90
Dates	5 pieces	120
Figs	1 medium	37
Grapefruit	1/2 medium	60
Grapes	1 cup	60
Guava	1 medium	45
Kiwifruit	2 medium	100
Lemon	1 average	15
Lime	1 average	20
Mango	1/2 medium	70
Nectarine	1 medium	70
Orange	1 medium	70
Papaya	1/2 medium	70
Peach	1 medium	40
Pear	1 medium	100
Persimmon	1 medium	32
Pineapple	2 slices	65
Plums	2 medium	80
Plunes	1/4 cup	110
Raisins, seedless	1/4 cup	107
Raspberries	1 cup	50
Strawberries	8 medium	45
Tangerine	1 medium	50
Watermelon	1 cup	40
Watermelon	1 slice, 10" diam.	150

Food Intake Information

Nutrition recorded successfully

User ID*

Date *

Time :*

Food Category *

Select Category

Food Name

Select Food

Calories Intake*

Save

Reset

Figure 5.4.2 shows the food interface with a success message after a record is successfully saved.

5.5 Weight Details Interface

KATODIET

NUTRITIONWEIGHTFITNESSDISPLAY MY PROGRESSLOGOUT

Lets manage my BMI !

Please input weight and height details here

Weight and Height Detail

User ID :*

Date :*

Add a weight :*


Add a height :*

Submit

Reset

You are worth the weight!

You are perfect



Via GIPHY

Figure 5.5.1 shows the weight details interface if the user clicks 'weight' at the home page. Weight details interface displays user id, date, weight (in kilogram) and height (in meter)

KATODIET

NUTRITIONWEIGHTFITNESSDISPLAY MY PROGRESSLOGOUT

Lets manage my BMI !
Please input weight and height details here
Weight recorded Successfully!

Weight and Height Detail

User ID :*

julia

Date :*

dd- - - - yyyy

Add a weight :*

Enter in KG

Add a height :*

Enter in m

SubmitReset

You are worth the weight!

scale

via GIPHY

Figure 5.5.2 shows the weight interface with a success message after a record is successfully saved.

5.6 Exercise Interface

KATODIET

NUTRITIONWEIGHTFITNESSDISPLAY MY PROGRESSLOGOUT

Yes, I've exercise today!
Please enter your exercise details here

Exercise Detail

User name:*

julia

Date :*

dd- - - - yyyy

Select a time :*

--:--:--

Select a sport :*

Please select an Option:

Select duration :*

Please select an Option:

SubmitReset

via GIPHY

Figure 5.6.1 shows the exercise interface if the user clicks 'fitness' at the home page. Exercise interface displays user id, date, time,sport and duration.

KATODIET

NUTRITIONWEIGHTFITNESSDISPLAY MY PROGRESSLOGOUT

Yes, I've exercise today!

Please enter your exercise details here

Exercise recorded Successfully!

Exercise Detail

User name :*

Date :*

Select a time :*

Select a sport :*


Please select an Option:

Select duration :*

Please select an Option:

Submit

Reset



via GIPHY

Figure 5.6.2 shows the exercise interface with a success message after a record is successfully saved.

5.7. Display Interface

KATODIET

NUTRITIONWEIGHTFITNESSDISPLAY MY PROGRESSLOGOUT

Hello User

Would you like to see your progress?

YES

"Time and health are two precious assets that we don't recognize and appreciate until they have been depleted."

f

@

o

p

t

in

Powered by Rusyaldi, Julia, Syahriah, Zalmi

Figure 5.7.1 shows the display interface if the user clicks 'display my progress' at the home page. Display interface shows user id and users can click the 'yes' button if users want to see their progress. The user will then be brought to another display interface.

Figure 5.7.2 shows display interface which are food list, exercise list and weight details list.

I've eaten today!

FOOD	AMOUNT	TOTAL CALORIES
Apple	1 medium	80
Apricots	3 medium	60
Banana	1 medium	110
Blackberries	1/2 cup	37
Blueberries	1/2 cup	41
Cantaloupe	1/4 medium	50
Cherries	1 cup	90
Dates	5 pieces	120
Figs	1 medium	37
Grapefruit	1/2 medium	60
Grapes	1 cup	60
Guaava	1 medium	45
Knifefruit	2 medium	100
Lemon	1 average	15
Lime	1 average	20
Mango	1/2 medium	70
Nectarine	1 medium	70
Orange	1 medium	70
Papaya	1/2 medium	70
Peach	1 medium	40
Pear	1 medium	100
Persimmon	1 medium	32
Pineapple	2 slices	65
Plums	2 medium	80
Prunes	1/4 cup	110
Raisins, seedless	1/4 cup	107
Raspberries	1 cup	50
Strawberries	8 medium	45
Tangerine	1 medium	50
Watermelon	1 cup	40
Watermelon	1 slice, 10" diam.	150

Figure 5.8.1 shows the update food interface that can be edited by the user if the user clicks the 'update' icon. Food details will be change once the user clicks 'update' button

5.9. Delete Food Interface

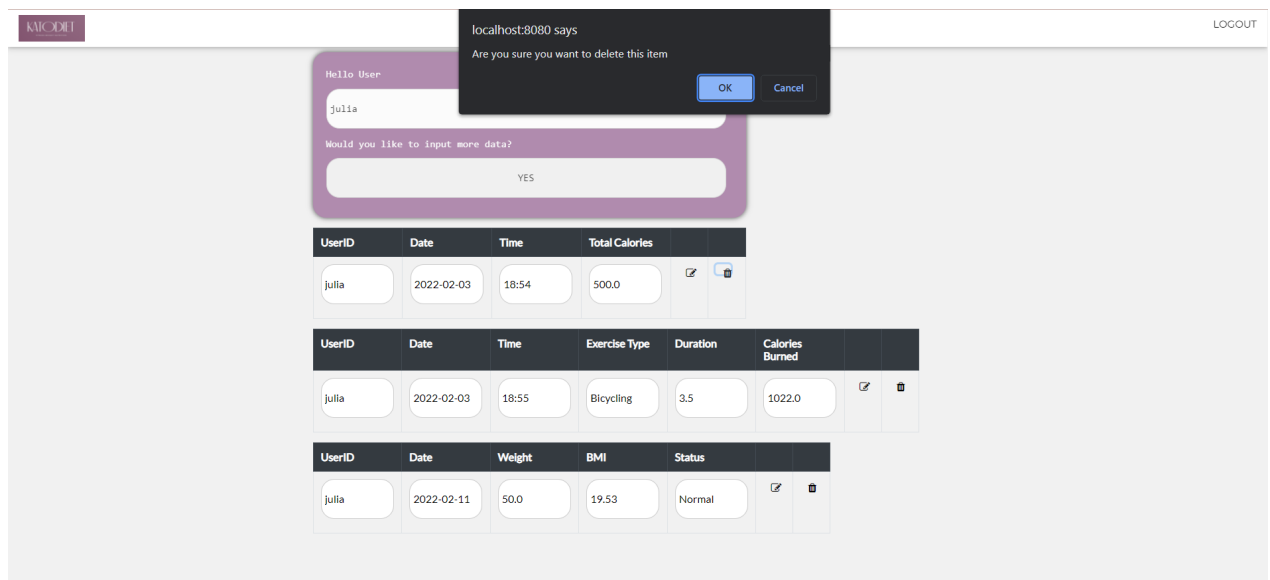


Figure 5.9.1 shows a delete confirmation message on display interface if the user clicks the 'delete' icon.

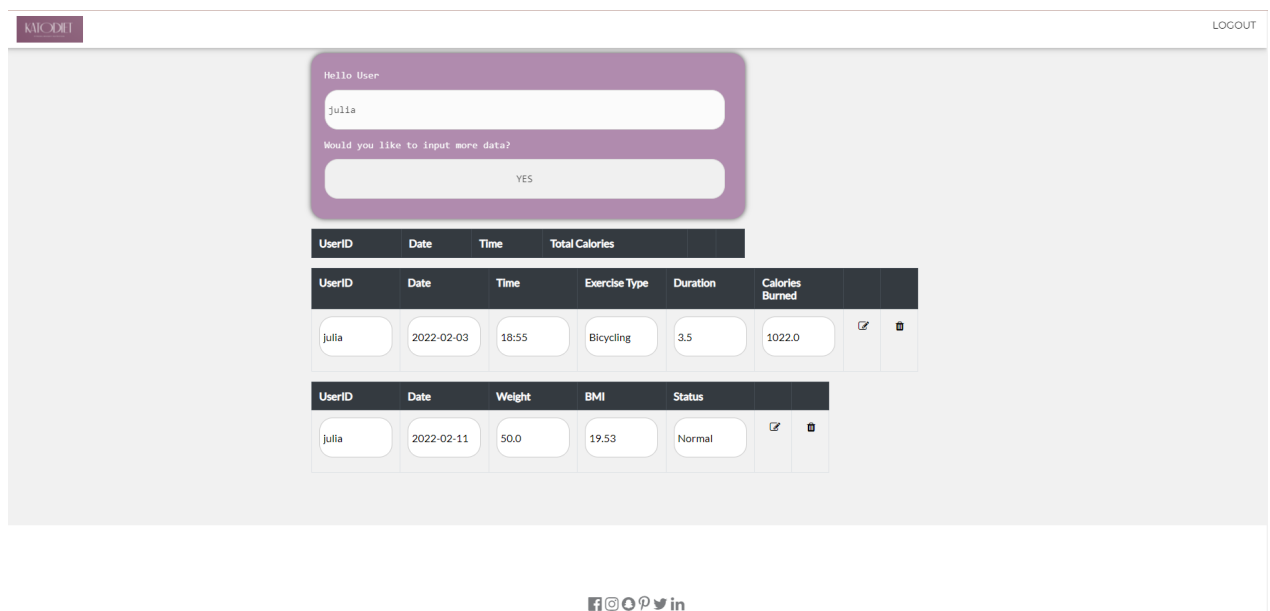


Figure 5.9.2 shows the food details already removed from the food list if the user clicks the 'OK' button at delete confirmation message.

5.10. Update Weight Details Interface

Lets manage my BMI !
Please input weight and height details here

Weight and Height Detail

User ID :*

julia

Date :*

11-Feb-2022

Add a weight :*

50.0

Add a height :*

1.6

Submit Reset

Figure 5.10.1 shows the update weight details interface that can be edited by the user if the user clicks the 'update' icon. Weight details will be change once the user clicks 'submit' button

5.11. Delete Weight Details Interface

localhost:8080 says
Are you sure you want to delete this item

OK Cancel

Hello User

julia

Would you like to input more data?

YES

UserID	Date	Time	Total Calories
--------	------	------	----------------

UserID	Date	Time	Exercise Type	Duration	Calories Burned		
julia	2022-02-03	18:55	Bicycling	3.5	1022.0		

UserID	Date	Weight	BMI	Status		
julia	2022-02-11	50.0	19.53	Normal		

Figure 5.11.1 shows a delete confirmation message on display interface if the user clicks the 'delete' icon.

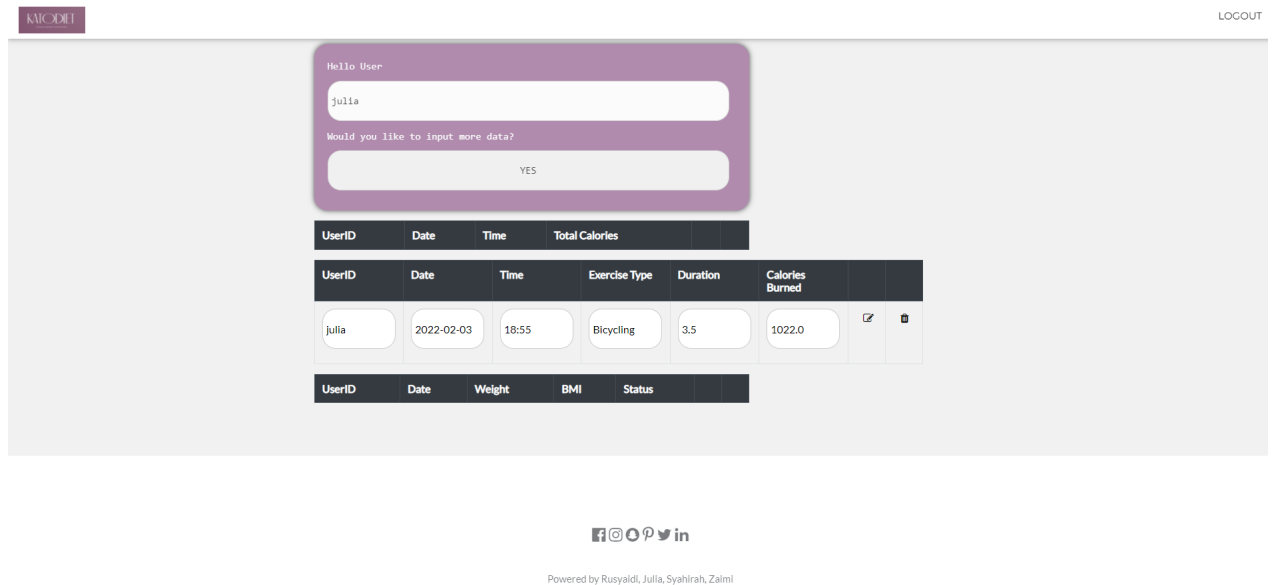


Figure 5.11.2 shows the weight details already removed from the weight details list if the user clicks the 'OK' button at delete confirmation message.

5.12. Update Exercise Interface

Yes, I've exercise today!
Please enter your exercise details here

Exercise Detail

User name:*

Date :*

Select a time :*

Select a sport :*

Select duration :*

Update Reset

Figure 5.12.1 shows the update exercise interface that can be edited by the user if the user clicks the 'update' icon. Exercise details will be change once the user clicks 'update' button

5.13. Delete Exercise Interface

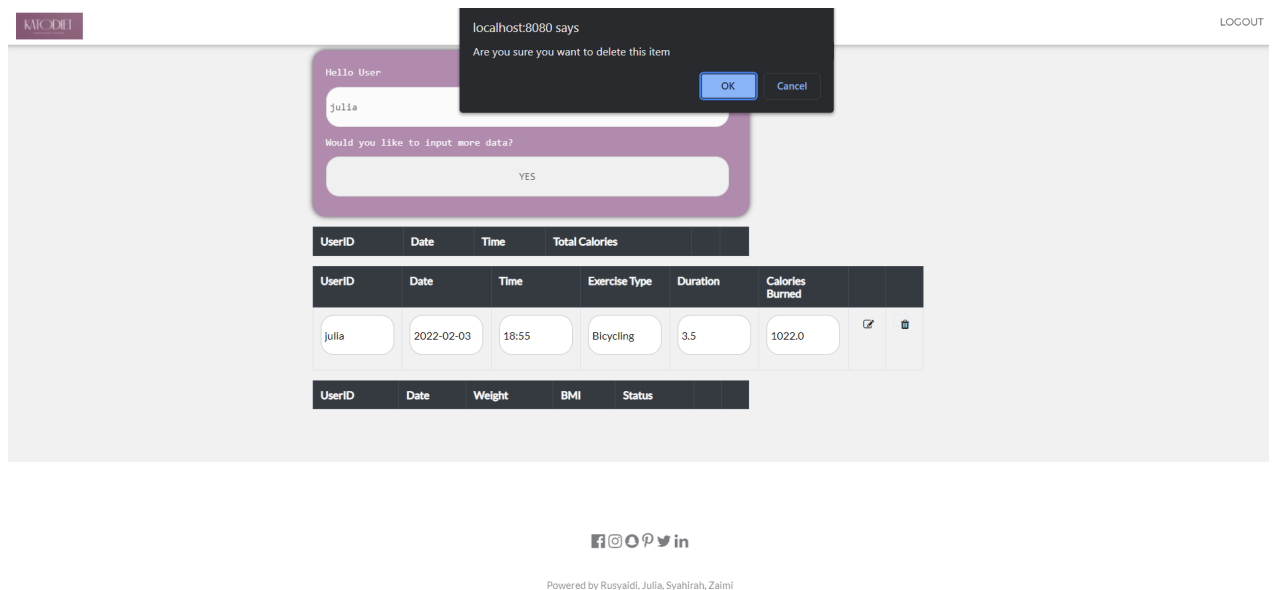


Figure 5.13.1 shows a delete confirmation message on display interface if the user clicks the 'delete' icon.

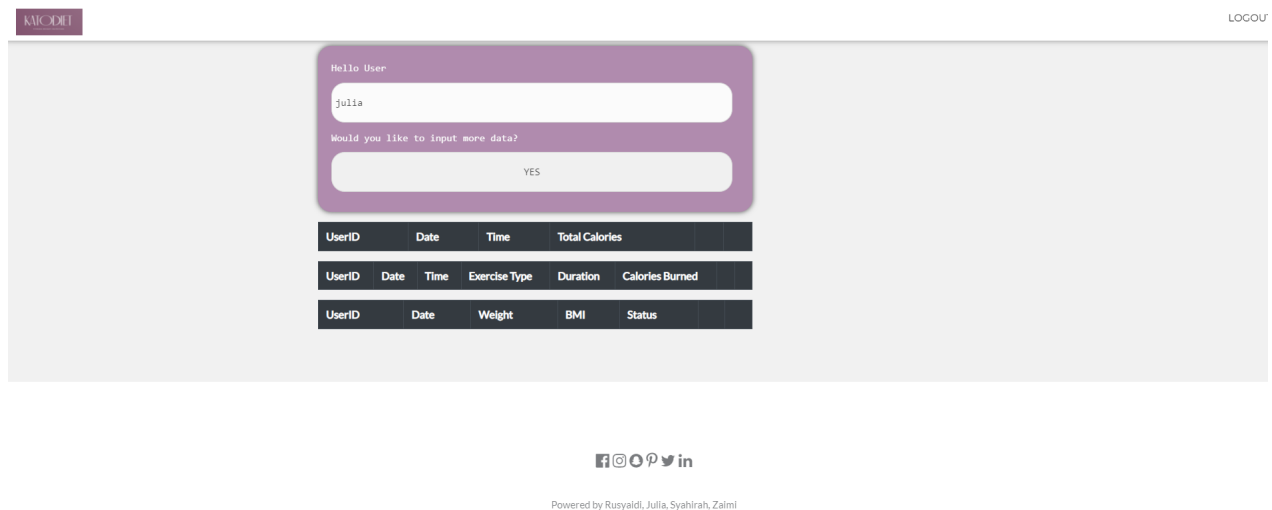


Figure 5.11.2 shows the exercise details already removed from the exercise list if the user clicks the 'OK' button at delete confirmation message.

5.14. Logout Interface

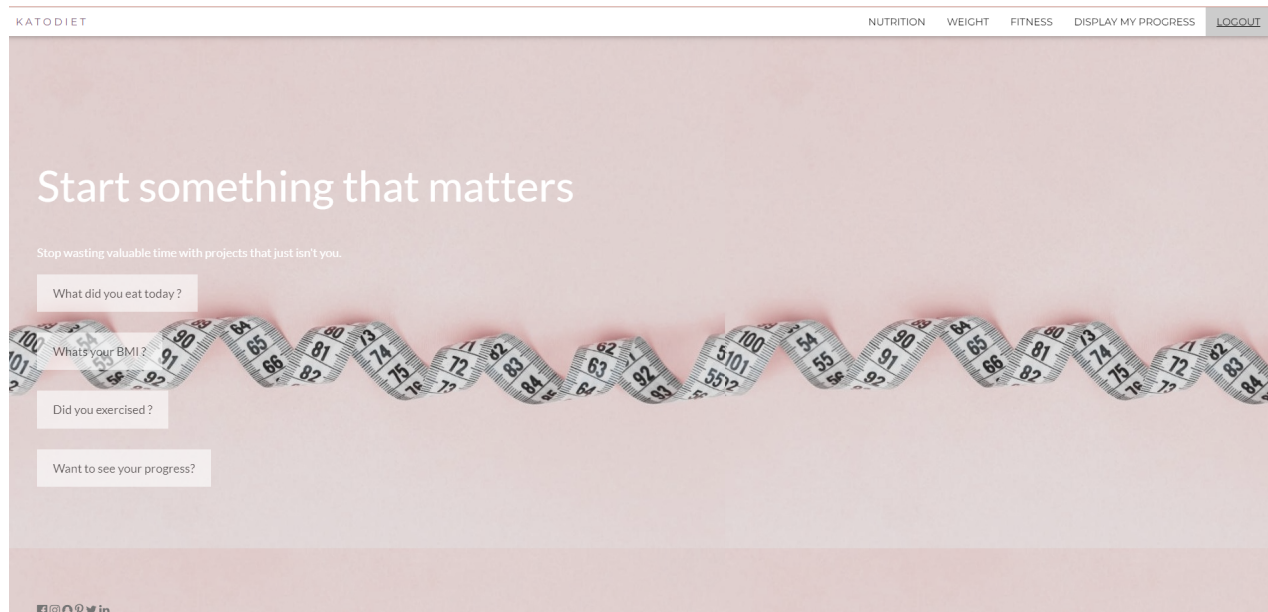


Figure 5.13.1 shows logout button at the homepage of KatoDiet

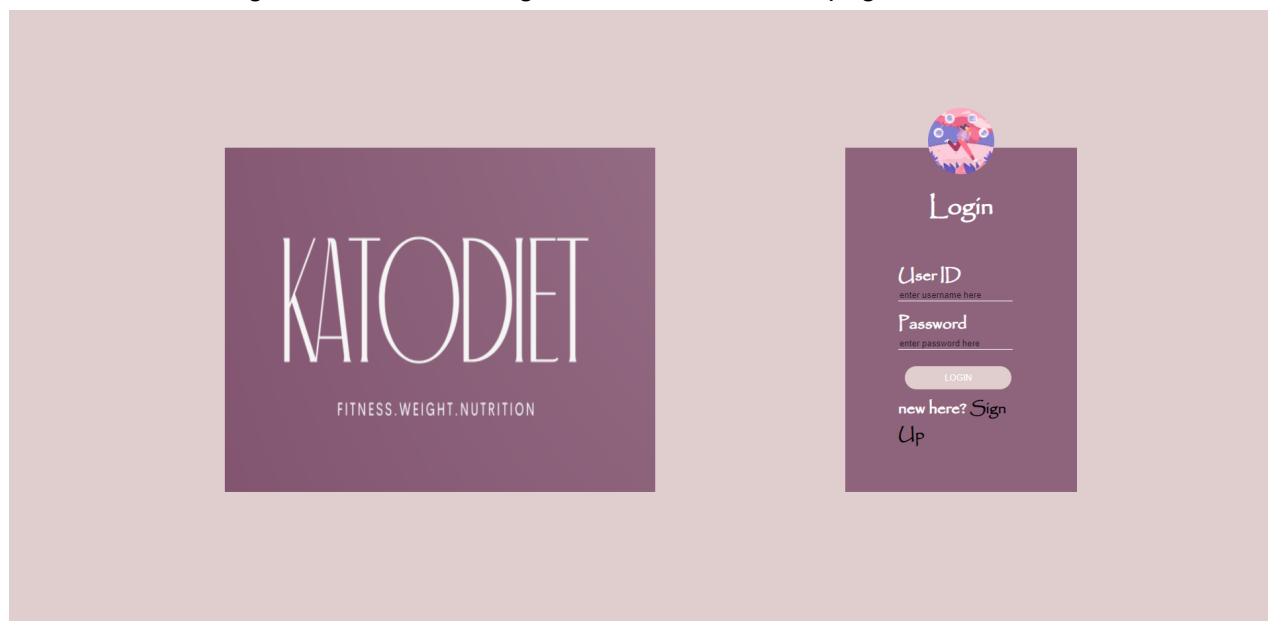


Figure 5.13.2 shows the login interface if the user clicks the 'logout' button.

6.0 Conclusion

'KatoDiet' is a website that helps to stay on track for weight loss progress. It can track calories intake, calories burned and calculate BMI. Therefore, it motivates the user to keep a healthy lifestyle by exercising, eating healthy and maintain a healthy weight. This website is useful for the users who dreams to have a healthy lifestyle to become reality.

7.0 Reference

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