

A report on

FITBIT – THE FIT YOU

by

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CS7411- Database Management Systems Laboratory

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Abstract

FitBit-We nurture the Fitness within You
Being Healthy and fit isn't a fad or trend
It's a lifestyle!

Health applications for fitness tracking are promising tools for engaging and motivating users in their own fitness levels-health care,as Internet is an appropriate medium for delivering health-related information and self-knowledge.Specifically,this project focuses on the area of health and wellbeing and the potential data that can be acquired regarding the lifestyle and dietary habits of the user.The information such as the types of food we eat,the amount of exercise we perform are recorded from the users who sign up for the we app.

Once we had settled on an idea and direction,we began evaluating the technologies and platforms suitable for implementation.In selecting a suitable platform,we ended up with developing it as a web application using Node.js and mysql.The most common feature is the use of user accounts.This allows users to be able to access their recorded data from any device capable of running the app.

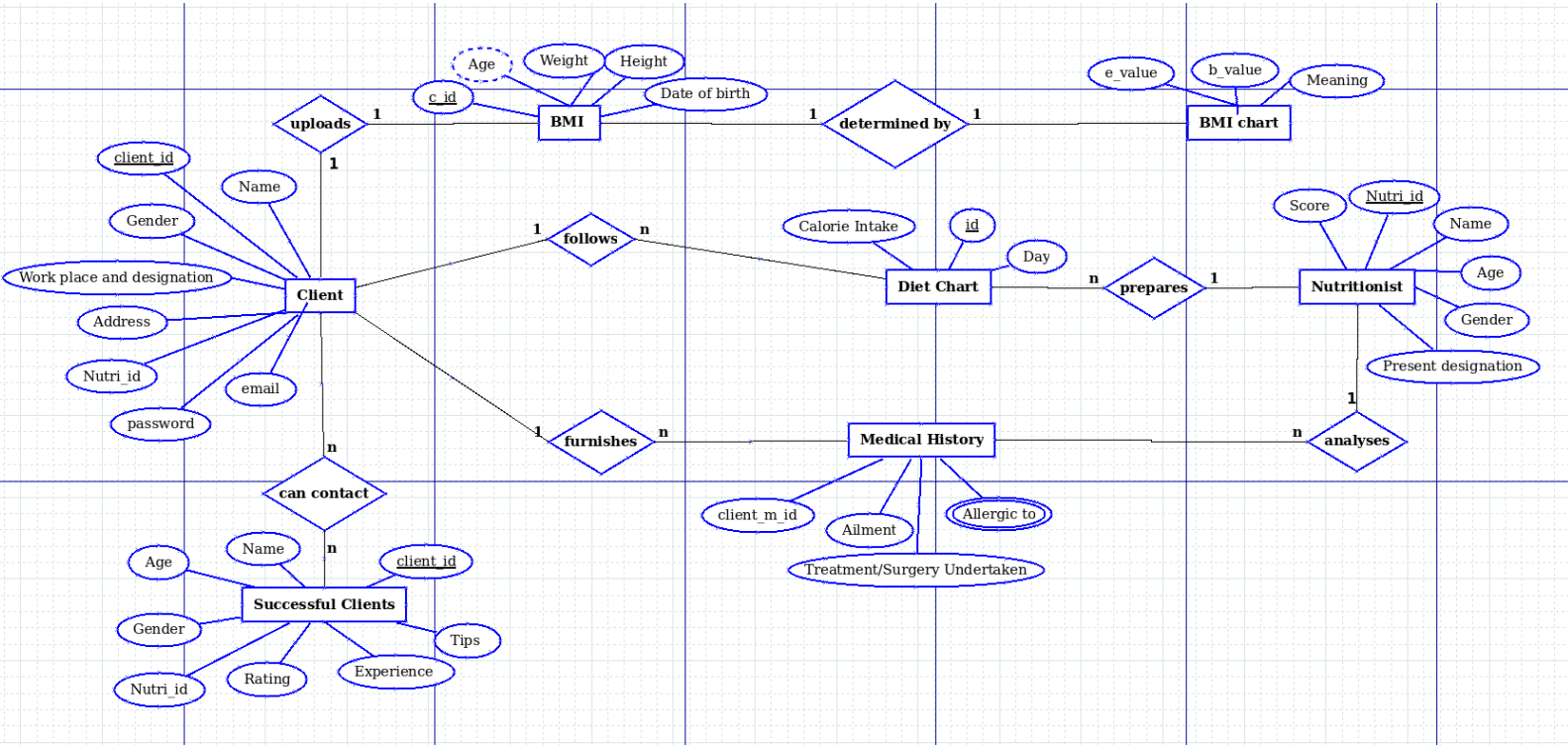
Front End: HTML WITH NODE JS

Back End: MYSQL

Salient Features of the System

- User account
- Dashboard for each user
- Tips for newbies
- Assignment of nutritionist
- Session id for an user
- Score calculation for every nutritionist
- Maintaining database records of old client

ER Diagram



DB Schema

Allergic to	
* <u>client_id</u>	int(5)
* allergies	varchar(50)

Medical History	
* client_id	int(5)
◦ ailment	varchar(50)
◦ treatments taken	varchar(50)

BMI	
* <u>client_id</u>	int(5)
◦ height	float(5,2)
◦ weight	float(5,2)
◦ date_of_birth	date
◦ age	int(3)
◦ bmi_value	varchar(15)
◦ bmi_val	int(5)

BMI Chart	
◦ b_value	float(5,2)
◦ e_value	float(5,2)
◦ meaning	varchar(15)

Client	
* <u>client_id</u>	int(5)
auto_increment	
◦ name	varchar(40)
◦ gender	char(1)
◦ address	varchar(50)
◦ workplace	varchar(30)
◦ designation	varchar(10)
◦ nutritionist_id	int(5)
* email	varchar(100)
◦ password	varchar(100)

Diet Chart	
* <u>id</u>	int(5)
◦ client_id	int(5)
◦ calorie_intake	float(10,3)
◦ day	int(4)

Nutritionist	
* <u>nutritionist_id</u>	int(5)
◦ name	varchar(30)
◦ gender	char(1)
◦ age	int(3)
◦ present_designation	varchar(40)
◦ score	int(5)

Successful clients	
* <u>client_id</u>	int(5)
◦ nutritionist_id	int(5)
◦ name	varchar(30)
◦ gender	char(1)
◦ age	int(3)
◦ rating	int(1)
◦ experience	varchar(100)
◦ tips	varchar(100)
◦ tips	varchar(100)

Rating	
◦ value	int(1)
◦ meaning	varchar(10)

Instances of the Relations (Snapshot)

```
mysql> use fit;
Database changed
mysql> show tables;
+-----+
| Tables_in_fit |
+-----+
| allergic_to   |
| bmi           |
| bmi_chart     |
| client        |
| d_chart       |
| diet_chart    |
| medical_history |
| nutri         |
| nutritionist  |
| rate          |
| rating        |
| successful_clients |
+-----+
12 rows in set (0.00 sec)
```

```
mysql> select * from bmi;
+-----+-----+-----+-----+-----+-----+-----+
| c_id | height | weight | date_of_birth | age | bmi_value       | bmi_val |
+-----+-----+-----+-----+-----+-----+-----+
| 5    | 160.00 | 64.00  | 1999-05-23    | 18  | Above ideal     | 27.55   |
| 9    | 170.00 | 68.00  | 1999-08-08    | 18  | Healthy weight  | 23.53   |
| 12   | 170.00 | 68.00  | 1999-08-08    | 18  | Healthy weight  | 23.53   |
| 13   | 170.00 | 68.00  | 1989-08-08    | 28  | Healthy weight  | 23.53   |
+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> select * from bmi_chart;
```

b_value	e_value	meaning
25.00	29.90	Above ideal
18.50	24.90	Healthy weight
30.00	45.00	Obese
1.00	18.40	Underweight

```
4 rows in set (0.00 sec)
```

```
mysql> select * from client;
```

client_id	name	gender	email	password	address	workplace	designation	session_id	join_date	end_date	nutrionist_id
5	Gayathri	NULL	iamanifs@gmail.com	joker				02b86100-37e0-11e8-9175-09e73a72eb79	NULL	NULL	NULL
6	Keerthana	NULL	keerubarbie@gmail.com	QWERTY8999	NULL	NULL	NULL	e0a88770-37cb-11e8-9312-37cb73fce2fa	2018-04-04	2018-06-04	NULL
7	Akhila	NULL	akhilapadmanaban@gmail.com	paas9800	NULL	NULL	NULL	NULL	2018-04-04	NULL	NULL
9	Gayu	NULL	gayu@gmail.com	gayu	NULL	NULL	NULL	NULL	2018-04-04	2018-06-04	4
12	Akhi	NULL	a@gmail.com	akhi	NULL	NULL	NULL	a4e5-3d5cf3a29124	2018-04-04	NULL	2
13	Keeru	NULL	k@gmail.com	keeru	NULL	NULL	NULL	b0e7-9332fb906a91	2018-04-04	NULL	2

```
6 rows in set (0.00 sec)
```

```
mysql> select * from d_chart;
```

meaning	chart
Above ideal	https://bit.ly/Above_Ideal
Healthy weight	https://bit.ly/Healthy_weight
Obese	https://bit.ly/fitbit_obese
Underweight	https://bit.ly/Underweight

```
4 rows in set (0.00 sec)
```

```
mysql> select * from nutri;
```

n_id	name	score
1	Erica Fernandes	NULL
2	Mike Ross	NULL
3	Eleven	NULL
4	Heisenberg	10
5	Jesse Pinkman	NULL

```
5 rows in set (0.00 sec)
```

```
mysql> select * from nutritionist;
```

n_id	name	gender	age	present_designation	score
1	Erica Fernandes	F	23	Chief nutritionist	NULL
2	Mike Ross	M	25	Associate nutritionist	NULL
3	Eleven	F	12	Specialist nutritionist	NULL
4	Heisenberg	M	50	VP	10
5	Jesse Pinkman	M	30	Assistant	NULL

```
5 rows in set (0.00 sec)
```



```
mysql> select * from rate;
```

c_id	nutrionist_id	rating
8	4	5
10	3	NULL
11	4	NULL
14	3	NULL
15	2	NULL

```
5 rows in set (0.00 sec)
```

```
mysql> select * from rating;
```

value	meaning
1	Worst
2	Average
3	Good
4	Very Good
5	Excellent

```
5 rows in set (0.00 sec)
```

```
mysql> select * from successful_clients;
```

c_id	name	gender	age	rating	experience	tips	nutrionist_id
8	Harvey	M	40	5	Great one.	Work hard	4

```
1 row in set (0.00 sec)
```

Views

#	Name	Tables Involved	Description	Output
1	rate	successful_clients	To extract the details of rating given by clients to their corresponding nutritionists at the end of a program.	
2	nutri	Nutritionist	To display all the nutritionists along with their score as awarded by their clients.	

Procedures

#	Name & Description	Tables Involved	IN & OUT Parameter(s)	Output
1	bmi_to_string To calculate the string BMI equivalent for the BMI value calculated.	Bmi,bmi_chart	id- id represents the client id(c_id) for which bmi has to be set. Nil	

Functions

#	Name & Description	Tables Involved	Parameter(s)	Return Type	Output
1	Heyhoi To calculate the BMI value from the height and weight values uploaded by the user.	Bmi	Id := c_id	Float	25.5

Triggers

#	Name & Description	Trigger Type	Output
1	<p>success_client</p> <p>To store the details of the clients who have either completed the program or discontinued the program.</p>	After delete	successful_clients gets a new
2	<p>Clieny</p> <p>To randomly assign a nutritionist for every client who enrolls for the program.</p>	Before insert	Assigns an n_id
3	<p>Agey</p> <p>To calculate the age and bmi as the data are entered.</p>	Before update	Calculates bmi every time the client updates his/her height or weight.
4	<p>check_value_bmi</p> <p>To prevent the user from entering invalid values like null , 0 or height less than previous value</p>	Before update	If invalid values are entered, then previous values are retained.
5	<p>check_value_client</p> <p>To prevent the user from entering invalid values.</p>	Before update	Invalid values are not updated.

#	Name & Description	Trigger Type	Output
6	score_cal To calculate the score of the nutritionist after every rating from the client.	Before update	Update the nutritionist' score

