

Healthy Living

This project is intended to provide nutrition information about several foods and help individuals to build a healthy plate at meal times. It also implements a BMI (Body Mass Index) calculator that determines whether a person is underweight, healthy weight or overweight.

Project Modules:

1. Home Page Module:

This module will have overview of the project and makes user aware of healthy eating habits.

2. Registration & Login Module

This module is mainly to register or login purpose. In this page users can login with their credentials or new users can register first and then login with their username and password.

3. Nutrition Information Module

In this module, we will display a list of food categories. Once user selects a food category, we will display all related items of that category i.e. subcategory. Once user selects a subcategory, we will display nutritional information. (Example: Firstly, we will display different categories like fruits, vegetables, etc. Suppose user selects fruits, we will display another list containing all fruits. Once user selects a fruit, we will display nutritional information of that particular fruit.)

4. BMI Calculator Module

In this module, user will be asked to enter his/her height and weight. Once user clicks on Get Results button, we will provide his/her BMI and also determine if the user is underweight, healthy weight or overweight.

Types of Users:

1. Admin
2. User

Admin functions: Admin has the following privileges:

Admin can add/update/delete the nutrition information and Food categories.

User functions: User has the following privileges:

User can login into his account with his credentials

A new user can register and then login with his credentials.

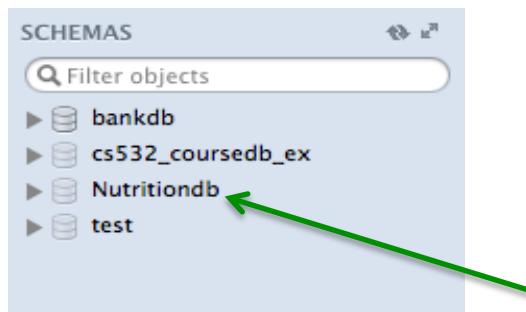
User can view the nutrition details of different foods.

If he/she is interested, they can calculate their BMI.

Design of Database based on MySQL

Create Schema

```
CREATE SCHEMA `Nutritiondb`;
```



Tables:

1. category

Table No:	1			
Table Name	category			
Table Description	This table contains different food categories (Eg: fruits, vegetables)			
COLUMN NAME	COLUMN TYPE	PK/FK ?	NULL/ NOT NULL	REMARKS
category_id	INT	PK	NOT NULL	AUTO_INCREMENT
category_name	VARCHAR(20)		NOT NULL	

```
CREATE TABLE `Nutritiondb`.`category`
(
`category_id` INT NOT NULL AUTO_INCREMENT,
`category_name` VARCHAR(20) NOT NULL,
PRIMARY KEY (`category_id`)
);
```

```
INSERT INTO `Nutritiondb`.`category`(`category_name`) VALUES ('Fruits');
INSERT INTO `Nutritiondb`.`category` (`category_name`) VALUES ('Vegetables');
INSERT INTO `Nutritiondb`.`category` (`category_name`) VALUES ('Seafood');
```

MySQL Workbench

Local instance 3306

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

SCHEMAS

- Filter objects
- cs532_coursedb_ex
- Nutritiondb
 - Tables
 - category
 - subcategory
 - Views
 - Stored Procedures
 - Functions

Object Info Session

No object selected

Result Grid | Filter Rows: | Edit: | Export/Import:

```
76
77 • select * from `Nutritiondb`.`category`;
78
79 • select * from `Nutritiondb`.`subcategory`;
80
81 • select * from `Nutritiondb`.`nutrition`;
82
83
```

100% 1:77

category_id category_name

1	Fruits
2	Vegetables
3	Seafood
NULL	NULL

Action Output

Time	Action	Response	Duration / Fetch Time
43 10:30:10	select * from `Nutritiondb`.`nutrition` LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
44 10:31:22	select * from `Nutritiondb`.`category` LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Result Grid | Form Editor | Field Types | Query Plans

category

category_id	category_name
1	Fruits
2	Vegetables
3	Seafood
NULL	NULL

2. subcategory

Table No:	2			
Table Name	subcategory			
Table Description	This table contains different food sub-categories (Eg: apple, cherries → these belong to fruits category)			
COLUMN NAME	COLUMN TYPE	PK/FK ?	NULL/ NOT NULL	REMARKS
subcategory_id	INT	PK	NOT NULL	AUTO_INCREMENT
subcategory_name	VARCHAR(30)		NOT NULL	
category_id	INT	FK	NOT NULL	REFERENCES `Nutritiondb`.`category`(`category_id`)

```

CREATE TABLE `Nutritiondb`.`subcategory`
(
  `subcategory_id` INT NOT NULL AUTO_INCREMENT,
  `subcategory_name` VARCHAR(30) NOT NULL,
  `category_id` INT NOT NULL,
  PRIMARY KEY (`subcategory_id`),
  FOREIGN KEY(`category_id`) REFERENCES `Nutritiondb`.`category`(`category_id`)
  ON DELETE CASCADE
  ON UPDATE CASCADE
);

```

```
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Apple', 1);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Cherries', 1);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Oranges', 1);  
  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Broccoli', 2);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Cabbage', 2);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Eggplant', 2);  
  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Atlantic Salmon', 3);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Crab', 3);  
  
INSERT INTO `Nutritionondb`.`subcategory` (`subcategory_name`, `category_id`) VALUES  
('Lobster', 3);
```

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Local instance 3306

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- Filter objects
- cs532_coursedb_ex
- Nutritiondb

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 - category
 - subcategory
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 - Stored Procedures
 - Functions

Object Info Session

No object selected

Query Completed

Result Grid

Filter Rows:

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subcategory_id subcategory_name category_id

subcategory_id	subcategory_name	category_id
1	Apple	1
2	Cherries	1
3	Oranges	1
4	Broccoli	2
5	Cabbage	2
6	Eggplant	2
7	Atlantic Salmon	3
8	Crab	3
9	Lobster	3
NULL	NULL	NULL

Action Output

Action	Response	Duration / Fetch Time
select * from 'Nutritiondb'.'category' LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
select * from 'Nutritiondb'.'subcategory' LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec

Result Grid Form Editor Field Types Query Plans

subcategory_id subcategory_name category_id

subcategory_id	subcategory_name	category_id
1	Apple	1
2	Cherries	1
3	Oranges	1
4	Broccoli	2
5	Cabbage	2
6	Eggplant	2
7	Atlantic Salmon	3
8	Crab	3
9	Lobster	3
NULL	NULL	NULL

3. nutrition

Table No:	3			
Table Name	nutrition			
Table Description	This table contains nutrition details of different food sub-categories.			
COLUMN NAME	COLUMN TYPE	PK/FK ?	NULL / NOT NULL	REMARKS
nutrition_id	INT	PK	NOT NULL	AUTO_INCREMENT
serving_size	VARCHAR(20)		NOT NULL	
fat_grams	DECIMAL(5,2)		NOT NULL	
carbs_grams	DECIMAL(5,2)		NOT NULL	
protein_grams	DECIMAL(5,2)		NOT NULL	
calories	INT		NOT NULL	
subcategory_id	INT	FK	NOT NULL	REFERENCES `Nutritiondb`.`subcategory`(`subcategory_id`)

```
CREATE TABLE `Nutritionondb`.`nutrition`  
(  
`nutrition_id` INT NOT NULL AUTO_INCREMENT,  
`serving_size` VARCHAR(20) NOT NULL,  
`fat_grams` DECIMAL(5,2) NOT NULL,  
`carbs_grams` DECIMAL(5,2) NOT NULL,  
`protein_grams` DECIMAL(5,2) NOT NULL,  
`calories` INT NOT NULL,  
`subcategory_id` INT NOT NULL,  
PRIMARY KEY (`nutrition_id`),  
FOREIGN KEY(`subcategory_id`) REFERENCES  
`Nutritionondb`.`subcategory`(`subcategory_id`)  
ON DELETE CASCADE  
ON UPDATE CASCADE  
);
```

```
INSERT INTO `Nutritionondb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 medium',  
'0.23','19.06','0.36',72,1);
```

```
INSERT INTO `Nutritionondb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 cup', '0.23','18.73','1.24',74,2);
```

```
INSERT INTO `Nutritionondb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 medium', '0.16','15.39',  
'1.23', 62,3);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 oz', '0.10','1.88','0.80',10,4);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 oz', '0.03','1.58','0.41',7,5);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 oz', '0.05','1.62','0.29',7,6);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1/2 fillet', '21.48','0','39.4',362,7);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 medium', '3.00','0.05',  
'9.08',65,8);
```

```
INSERT INTO `Nutritionodb`.`nutrition`(`serving_size`,`fat_grams`,`carbs_grams`,  
`protein_grams`,`calories`,`subcategory_id`) VALUES ('1 medium', '1.71','3.75','59.97',  
286,9);
```

The screenshot shows the MySQL Workbench interface. The left sidebar contains navigation panels for MANAGEMENT, INSTANCE, PERFORMANCE, SCHEMAS, and a detailed view of the current database (Nutritiondb). The central area features a query editor with three selected SQL statements:

```
76
77 • select * from `Nutritiondb`.`category`;
78
79 • select * from `Nutritiondb`.`subcategory`;
80
81 • select * from `Nutritiondb`.`nutrition`;
82
83
```

Below the editor is a Result Grid displaying the data from the last query:

nutrition_id	serving_size	fat_grams	carbs_grams	protein_grams	calories	subcategory_id
1	1 medium	0.23	19.06	0.36	72	1
2	1 cup	0.23	18.73	1.24	74	2
3	1 medium	0.16	15.39	1.23	62	3
4	1 oz	0.10	1.88	0.80	10	4
5	1 oz	0.03	1.58	0.41	7	5
6	1 oz	0.05	1.62	0.29	7	6
7	1/2 fillet	21.48	0.00	39.40	362	7
8	1 medium	3.00	0.05	9.08	65	8
9	1 medium	1.71	3.75	59.97	286	9
HULL	HULL	HULL	HULL	HULL	HULL	HULL

The bottom section shows the Action Output and Response panes, and the status bar indicates "Query Completed".

4. registration

Table No:	4			
Table Name	registration			
Table Description	This table contains information related to users.			
COLUMN NAME	COLUMN TYPE	PK/FK ?	NULL/ NOT NULL	REMARKS
user_id	INT	PK	NOT NULL	AUTO_INCREMENT
user_name	VARCHAR(20)		NOT NULL	
enter_password	VARCHAR(20)		NOT NULL	
confirm_password	VARCHAR(20)		NOT NULL	
email_address	VARCHAR(40)		NOT NULL	

```

CREATE TABLE `Nutritiondb`.`registration`
(
  `user_id` INT NOT NULL AUTO_INCREMENT,
  `user_name` VARCHAR(20) NOT NULL,
  `enter_password` VARCHAR(20) NOT NULL,
  `confirm_password` VARCHAR(20) NOT NULL,
  `email_address` VARCHAR(40) NOT NULL,
  PRIMARY KEY (`user_id`)
);

```

INSERT INTO

```
'Nutritionondb`.`registration`(`user_name`,`enter_password`,`email_address`,`city`,`state`,  
`zip`,`phone`)  
VALUES ('pratyusha', 'pra@12','pra@yahoo.com','Fremont','CA',94539,123456789);
```

INSERT INTO

```
'Nutritionondb`.`registration`(`user_name`,`enter_password`,`email_address`,`city`,`state`,  
`zip`,`phone`)  
VALUES ('srikanth', 'sri@12','sri@yahoo.com','Albany','NY',12201,234234234);
```

INSERT INTO

```
'Nutritionondb`.`registration`(`user_name`,`enter_password`,`email_address`,`city`,`state`,  
`zip`,`phone`)  
VALUES ('pranav', 'panni@12','panni@yahoo.com','Avalon','NJ',08202,123434561);
```

The screenshot shows the MySQL Workbench interface with the following details:

- Left Panel (Management):** Shows various server status and configuration options.
- Central Area:** A SQL editor window with the following content:

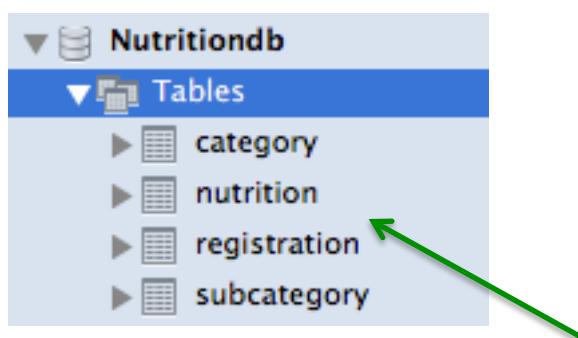
```
117  
118  
119  
120  
121  
122 • select * from `Nutritionondb`.`registration` ;  
123  
124  
125  
126  
127  
128
```
- Result Grid:** Displays the data from the registration table:

user_id	user_name	enter_password	confirm_password	email_address
1	pratyusha	pra@12	pra@12	pra@yahoo.com
2	srikanth	sri@12	sri@12	sri@yahoo.com
3	pranav	panni@12	panni@12	panni@yahoo.com
- Bottom Panel:** Shows the history of recent actions and the status "Query Completed".

A green arrow points downwards from the bottom of the central result grid area towards the bottom of the image.

	user_id	user_name	enter_password	email_address	city	state	zip	phone
▶	1	pratyusha	pra@12	pra@yahoo.com	Fremont	CA	94539	123456789
	2	srikanth	sri@12	sri@yahoo.com	Albany	NY	12201	234234234
	3	pranav	panni@12	panni@yahoo.com	Avalon	NJ	8202	123434561

Below screenshot shows 4 tables used in this project



Creating User:

```
CREATE USER 'nutrition_user'@'localhost' IDENTIFIED BY 'pswdForNutritionondb';
```

```
GRANT ALL PRIVILEGES ON Nutritionondb.* TO 'nutrition_user'@'localhost' WITH GRANT
OPTION;
```

```
SHOW GRANTS FOR 'nutrition_user'@'localhost';
```

MySQL Workbench

Local instance 3306

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INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

SCHEMAS

- Filter objects
- css342_courseadb_ex
- Nutritiondb
 - Tables
 - category
 - subcategory
 - Views
 - Stored Procedures
 - Functions
- test

Object Info Session

No object selected

Query Completed

courses SQL File 8 SQL File 9 SQL File 10 account account SQL File 14

```

85
86
87 • CREATE USER 'nutrition_user'@'localhost' IDENTIFIED BY 'pswdForNutritiondb';
88
89 • GRANT ALL PRIVILEGES ON Nutritiondb.* TO 'nutrition_user'@'localhost' WITH GRANT OPTION;
90
91 • SHOW GRANTS FOR 'nutrition_user'@'localhost';
92
93
94
95

```

Result Grid | Filter Rows: | Export: | Result Grid

Grants for nutrition_user@localhost

```

GRANT USAGE ON *.* TO 'nutrition_user'@'localhost'
GRANT ALL PRIVILEGES ON `Nutritiondb`.* TO 'nutrition_user'@'localhost'

```

Result 11

Action Output

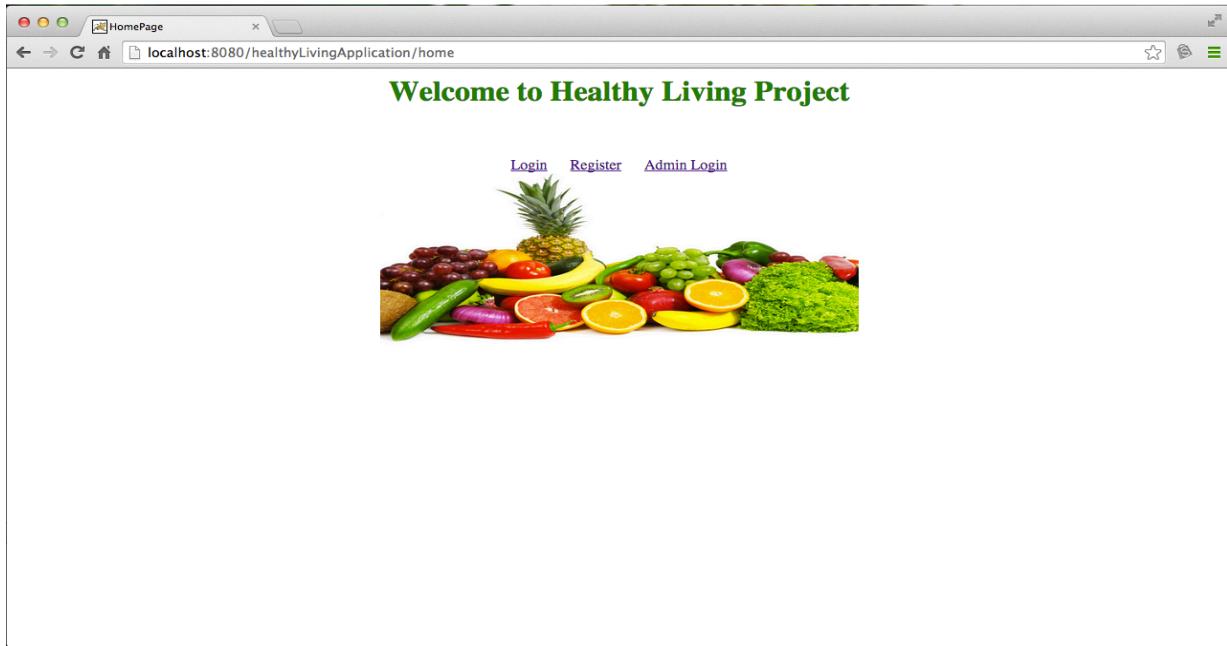
Time	Action	Response	Duration / Fetch Time
39 10:29:38	INSERT INTO `Nutritiondb`.`nutrition`(`serving_size`, `fat_grams`, `carbs_grams`, `protein_grams`) VALUES ('1', '0.5', '10', '2')	1 row(s) affected	0.051 sec
40 10:29:38	INSERT INTO `Nutritiondb`.`nutrition`(`serving_size`, `fat_grams`, `carbs_grams`, `protein_grams`) VALUES ('1', '0.5', '10', '2')	1 row(s) affected	0.016 sec
41 10:29:45	select * from `Nutritiondb`.`category` LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
42 10:29:53	select * from `Nutritiondb`.`subcategory` LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
43 10:30:10	select * from `Nutritiondb`.`nutrition` LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
44 10:31:22	select * from `Nutritiondb`.`category` LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
45 10:31:57	select * from `Nutritiondb`.`subcategory` LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
46 10:32:21	select * from `Nutritiondb`.`nutrition` LIMIT 0, 1000	9 row(s) returned	0.000 sec / 0.000 sec
47 10:39:56	CREATE USER 'nutrition_user'@'localhost' IDENTIFIED BY 'pswdForNutritiondb'	0 row(s) affected	0.079 sec
48 10:40:07	GRANT ALL PRIVILEGES ON Nutritiondb.* TO 'nutrition_user'@'localhost' WITH GRANT OPTION	0 row(s) affected	0.022 sec
49 10:40:12	SHOW GRANTS FOR 'nutrition_user'@'localhost'	2 row(s) returned	0.000 sec / 0.000 sec

Read Only

Screenshots of the Project:

Url: localhost:8080/healthyLivingApplication/home

Index.jsp will open up below home page that has 3 hyperlinks (Login, Register and AdminLogin)



Once we click on Login hyperlink, below webpage will ask for login credentials

A screenshot of a web browser window titled "LoginForm". The URL in the address bar is "localhost:8080/healthyLivingApplication/views/login.jsp". The page displays a simple login form with two text input fields: one for "Enter User Name:" and another for "Enter Password:", both preceded by descriptive labels. Below the password field is a "Submit" button. The browser interface is identical to the previous screenshot, with standard window controls and a toolbar.

If we don't fill in any of the text box and click submit, an error message will be displayed beside that particular text box as shown below:

The screenshot shows a web browser window titled "LoginForm". The URL in the address bar is "localhost:8080/healthyLivingApplication/LoginServlet". The page contains a login form with two text input fields and a submit button. The first field is labeled "Enter User Name:" and contains the value "pratyusha". The second field is labeled "Enter Password:" and has an empty input box. To the right of the empty password field, the text "This field cannot be left empty" is displayed in red, indicating an validation error. A "Submit" button is located below the password field.

If we give some random username, password that is not present in database and click submit, it will show a message saying that 'Incorrect username or password' as shown below:

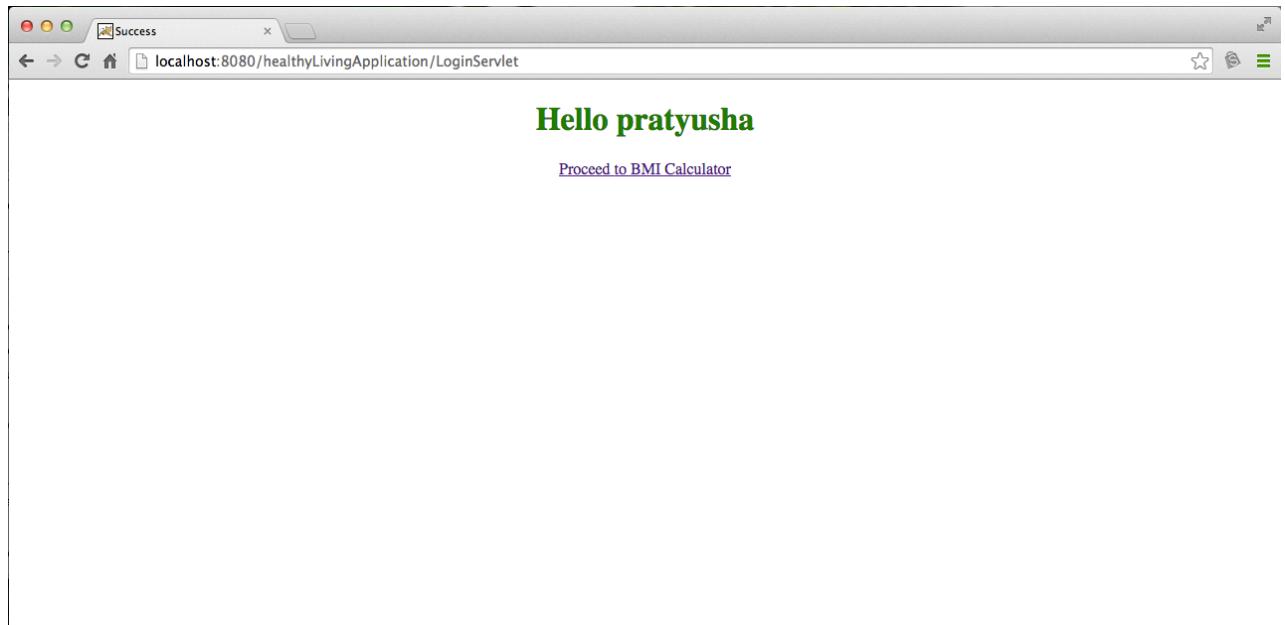
The screenshot shows a web browser window titled "LoginForm". The URL in the address bar is "localhost:8080/healthyLivingApplication/LoginServlet". The page contains a login form with two text input fields and a submit button. Both the "Enter User Name:" and "Enter Password:" fields are empty. Below the password field, the text "Incorrect username or password" is displayed in red, indicating an validation error. A "Submit" button is located below the password field.

If we login with below login credentials, a login confirmation page will be displayed that has a hyperlink saying proceed to BMI Calculator

username: pratyusha

password: pra@12

(These are the values stored in database).



Once we click on Proceed to BMI Calculator Hyperlink, below webpage will be displayed

A screenshot of a web browser window titled "BMICalculator". The address bar shows "localhost:8080/healthyLivingApplication/views/bmiCalculator.jsp". The page contains fields for "Enter Your Height(inches)" and "Enter Your Weight(lbs)" with corresponding input boxes. It also features a "Submit" button, a "Your BMI Results:" label, and a blue hyperlink "Proceed to Nutrition Guide". A "Logout" link is visible in the top right corner.

If we don't fill any of the textbox, an error message will be displayed beside that particular textbox as shown below:

The screenshot shows a web browser window titled "BMICalculator". The address bar displays "localhost:8080/healthyLivingApplication/BMIServlet". On the right side of the browser, there is a "Logout" link. The main content area contains the following form fields:

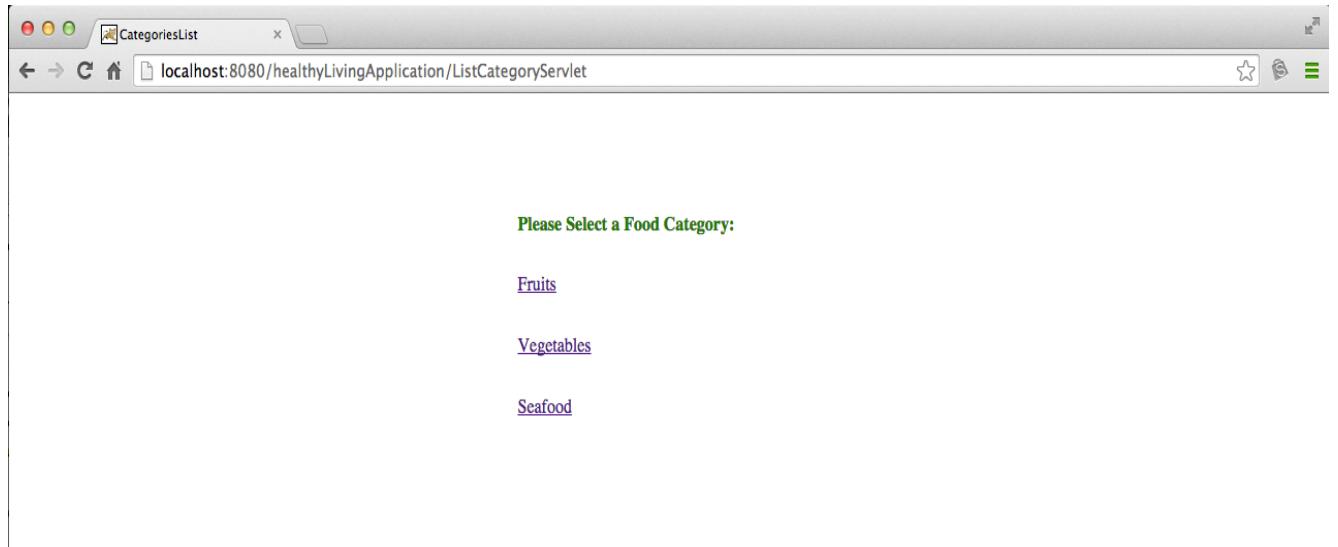
- Enter Your Height(inches):** This field cannot be left empty
- Enter Your Weight(lbs):** This field cannot be left empty
-
- Your BMI Results:**
[Proceed to Nutrition Guide](#)

Now if we enter Height as 66 (inches) and weight as 125 (lbs), BMI will be calculated and displayed as shown below. Please note that there is a hyperlink saying Proceed to Nutrition Guide.

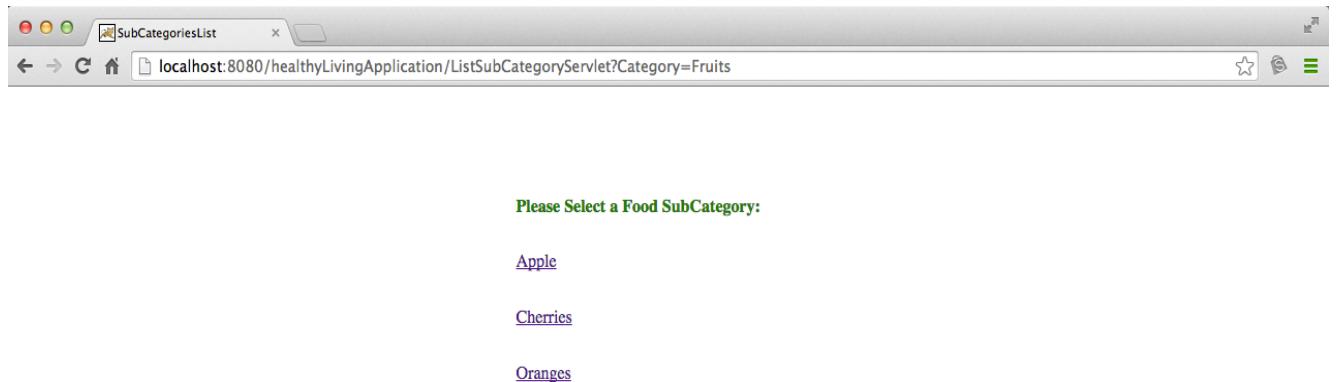
The screenshot shows a web browser window titled "BMICalculator". The address bar displays "localhost:8080/healthyLivingApplication/BMIServlet". On the right side of the browser, there is a "Logout" link. The main content area contains the following form fields and results:

- Enter Your Height(inches):**
- Enter Your Weight(lbs):**
-
- Your BMI Results:** **20.173324150596876**
- [Proceed to Nutrition Guide](#)

Once we click on Proceed to Nutrition Guide hyperlink, below webpage will be displayed which has a list of categories as shown below. Click on any of the food category.
(Suppose fruits category is clicked)



As we clicked on Fruits category, all fruits will be displayed as shown below. (Suppose we select Apple)



As we selected Apple, all the nutrition details of apple will be displayed as shown below.

Notice Logout link on top right corner of the webpage

The screenshot shows a web browser window titled "NutritionDetails". The URL in the address bar is "localhost:8080/healthyLivingApplication/ListNutritionInfoServlet?Subcategory=Apple". On the right side of the browser window, there is a "Logout" link. The main content area displays the following text:

Here is the Nutrition Information:

Apple

Serving Size: 1 medium

Fat(in grams): 0.23

Carbs(in grams): 19.06

Protein(in grams): 0.36

Calories: 72

Once Logout link is clicked, user will be redirected to below webpage. If user clicks on 'Click to Login Again hyperlink', he will be able to login again and can go through all the above steps. Suppose he clicks on 'Back to Home Page link'.

The screenshot shows a web browser window titled "LogoutSuccess". The URL in the address bar is "localhost:8080/healthyLivingApplication/views/logout.jsp". The main content area displays the following text:

Logged Out Successfully...!!

[Click to Login Again](#) [Back to Home Page](#)



Once we click on Register hyperlink, it opens up a webpage that will ask user to enter all his details as shown below

A screenshot of a web browser window titled "RegistrationForm". The address bar shows "localhost:8080/healthyLivingApplication/views/registrationForm.jsp". The page displays a form with the following fields:

User Name:	<input type="text"/>
Password:	<input type="password"/>
Email ID:	<input type="text"/>
City:	<input type="text"/>
State:	<input type="text"/>
Zip Code:	<input type="text"/>
Phone(9digits):	<input type="text"/>

If user forgets to fill any of his details and clicks on submit button, an error message will be displayed beside that particular textbox as shown below:

A screenshot of a web browser window titled "RegistrationForm". The URL in the address bar is "localhost:8080/healthyLivingApplication/RegistrationServlet". The form contains the following fields and their values:

User Name:	aishu
Password:	*
Email ID:	viru@gmail.com
City:	
State:	
Zip Code:	1234
Phone(9digits):	

Red validation messages are displayed next to the empty fields:

- "City: This field cannot be left empty"
- "State: This field cannot be left empty"
- "Phone(9digits): This field cannot be left empty"

A "Submit" button is located at the bottom of the form.

Suppose user is entering all his details as shown below and clicks on submit

A screenshot of a web browser window titled "RegistrationForm". The URL in the address bar is "localhost:8080/healthyLivingApplication/views/registrationForm.jsp". The form contains the following fields and their values:

User Name:	aishu
Password:	*****
Email ID:	aishu@gmail.com
City:	bangalore
State:	karnataka
Zip Code:	1234
Phone(9digits):	123456789

The "State" field is highlighted with a yellow background. A "Submit" button is located at the bottom of the form.

Screenshot of a web browser window titled "RegistrationSuccess". The URL in the address bar is "localhost:8080/healthyLivingApplication/RegistrationServlet".

You are registered Successfully

[Login with your new credentials](#)

Above user will be stored in database once he enters valid details and clicks on submit.

Below is the screenshot of the database

user_id	user_name	enter_password	email_address	city	state	zip	phone
1	pratyusha	pra@12	pra@yahoo.com	Fremont	CA	94539	123456789
2	srikanth	sri@12	sri@yahoo.com	Albany	NY	12201	234234234
3	pranav	panni@12	panni@yahoo.com	Avalon	NJ	8202	123434561
4	aishu	aishu	aishu@gmail.com	bangalore	karnataka	1234	123456789

Go back to homepage and click on Admin Login

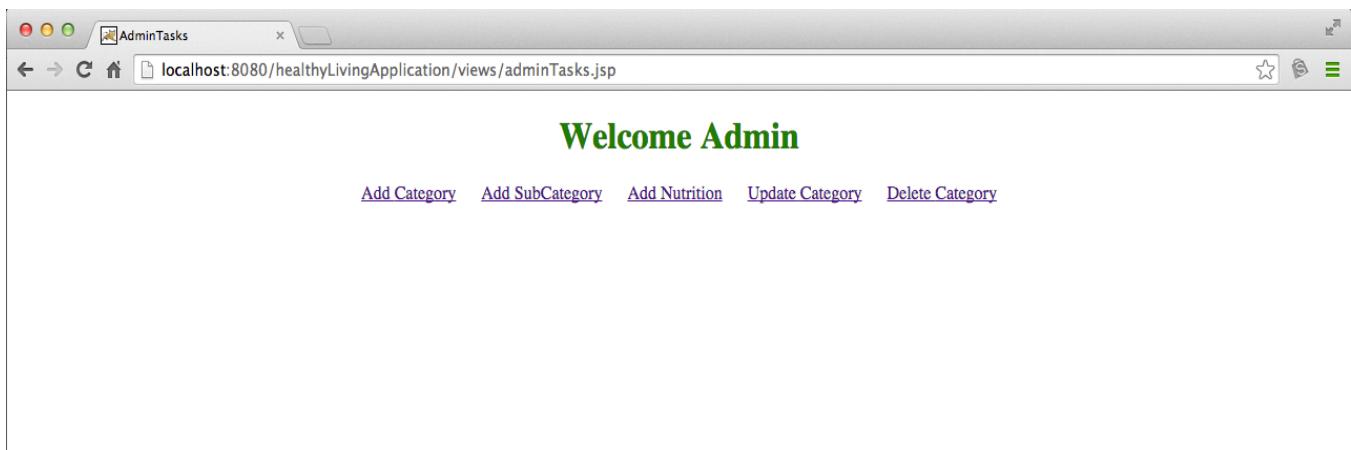
Screenshot of a web browser window titled "HomePage". The URL in the address bar is "localhost:8080/healthyLivingApplication/index.jsp".

Welcome to Healthy Living Project

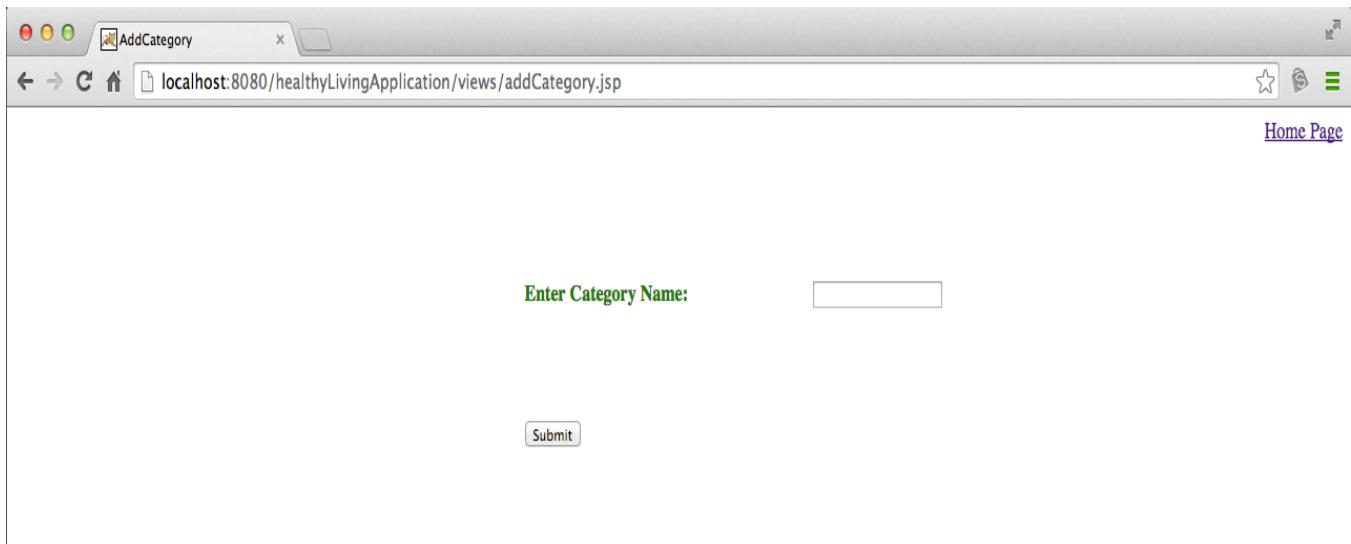
[Login](#) [Register](#) [Admin Login](#)



Admin can perform different tasks as shown below:



Suppose admin clicks on 'Add Category' hyperlink, below webpage will show up which asks admin to enter a category name



Suppose admin enters a category name, Meat and clicks on submit as shown below

AddCategory

localhost:8080/healthyLivingApplication/views/addCategory.jsp

Home Page

Enter Category Name:

Submit

InsertSuccess

localhost:8080/healthyLivingApplication/AddCategoryServlet

Successfully Inserted...!

[Back to Tasks Page](#)

	category_id	category_name
▶	1	Fruits
	2	Vegetables
	3	Seafood
	4	Meat



Suppose admin clicks on 'Add SubCategory' hyperlink, below webpage will show up which asks admin to select a category and then asks admin to enter a new Subcategory name as shown below:

The screenshot shows a web browser window titled "CategoriesList". The URL in the address bar is "localhost:8080/healthyLivingApplication/AdminListCategoryServlet". The page content is a list of categories under the heading "Select a Category under which you want to add a Subcategory:". The categories listed are "Fruits", "Vegetables", "Seafood", and "Meat".

Suppose admin clicks on Meat category

The screenshot shows the same web browser window as before, but now the "Meat" category is highlighted or selected. The other categories (Fruits, Vegetables, Seafood) are still visible but not selected.

The screenshot shows a new web browser window titled "AddSubCategory". The URL in the address bar is "localhost:8080/healthyLivingApplication/views/addSubCategory.jsp?CategoryId=4". The page content includes a heading "Enter SubCategory Name:" followed by a text input field and a "Submit" button. There is also a link "Home Page" at the top right of the page.

Suppose admin enters a Subcategory, Chicken and clicks on submit button as shown below

Enter SubCategory Name:

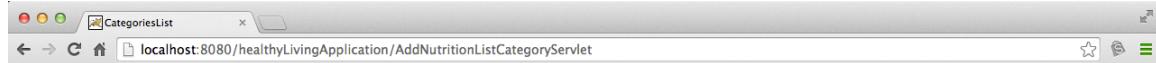
Successfully Inserted..!!

[Back to Tasks Page](#)

subcategory_id	subcategory_name	category_id
1	Apple	1
2	Cherries	1
3	Oranges	1
4	Broccoli	2
5	Cabbage	2
6	Eggplant	2
7	Atlantic Salmon	3
8	Crab	3
9	Lobster	3
10	Chicken	4



Suppose admin clicks on 'Add Nutrition' hyperlink, below webpage will show up which asks admin to select a Category, Subcategory and then asks admin to enter a nutrition information as shown below:



Suppose admin selects Meat Category, below subcategory list will be displayed which we added just now



Clicking on above subcategory will redirect admin to below webpage where admin will enter all the nutrition information as shown below and clicks on submit

Serving Size:

Fat(in grams):

Carbs(in grams):

Protein(in grams):

Calories:

InsertSuccess

localhost:8080/healthyLivingApplication/AddNutritionServlet?SubcategoryId=10

Successfully Inserted..!!

[Back to Tasks Page](#)

nutrition_id	serving_size	fat_grams	carbs_grams	protein_grams	calories	subcategory_id
1	1 medium	0.23	19.06	0.36	72	1
2	1 cup	0.23	18.73	1.24	74	2
3	1 medium	0.16	15.39	1.23	62	3
4	1 oz	0.10	1.88	0.80	10	4
5	1 oz	0.03	1.58	0.41	7	5
6	1 oz	0.05	1.62	0.29	7	6
7	1/2 fillet	21.48	0.00	39.40	362	7
8	1 medium	3.00	0.05	9.08	65	8
9	1 medium	1.71	3.75	59.97	286	9
10	1 thin slice	0.94	0.00	1.89	17	10

Suppose admin clicks on 'Update Category' hyperlink, below webpage will show up which asks admin to select a category that has to be updated and then he will be asked enter a new Category name.

CategoriesList

localhost:8080/healthyLivingApplication/UpdateListCategoryServlet

Select a Category that has to be updated:

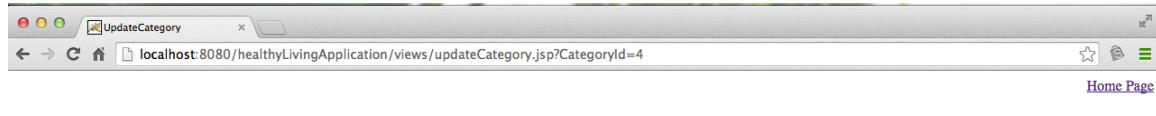
[Fruits](#)

[Vegetables](#)

[Seafood](#)

[Meat](#)

Suppose admin selects Meat category and he want to update it to Dairy as shown below:



category_id	category_name
1	Fruits
2	Vegetables
3	Seafood
4	Dairy



Suppose admin clicks on 'Delete Category' hyperlink, below webpage will show up which asks admin to select a category that has to be deleted as shown below.



Select a Category that has to be deleted:

[Fruits](#)

[Vegetables](#)

[Seafood](#)

[Dairy](#)

Suppose admin wants to delete Dairy category

The screenshot shows a web browser window titled "DeleteSuccess". The URL in the address bar is "localhost:8080/healthyLivingApplication/DeleteCategoryServlet?CategoryId=4". The main content of the page is "Successfully Deleted..!!" in green text, with a link "Back to Tasks Page" below it. Below this, there is a table with two columns: "category_id" and "category_name". The table contains three rows with data: 1 | Fruits, 2 | Vegetables, and 3 | Seafood.

category_id	category_name
1	Fruits
2	Vegetables
3	Seafood

Note:

1. Update and Delete will be cascaded to child tables (i.e. if a category is updated/deleted from category table, that particular category will be updated/deleted from subcategory and nutrition tables too) since there is ON UPDATE CASCADE and ON DELETE CASCADE while creating foreign key constraints.
2. Every Webpage in the project does validation of the textboxes and only checks if they are filled or not. User/Admin must make sure that he/she enters valid information in the textboxes.