

MEAL WAGON

(Project-11)

PROJECT REPORT

Submitted in fulfilment for the J-Component of ITE1008 – Open Source Programming

CAL COURSE in B.Tech. (Information Technology) By

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SITE*



VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

School of Information Technology and Engineering
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ABSTRACT

To make meal planning hassle free and searching of new recipes easier for users we have made an application which plans out meals based on the requirements of the user along with calorie tracking and also provides all information regarding new recipes all at one place.

PROBLEM STATEMENT

Now-a-days we all are living in a rush either in personal or professional life. And due to this current situation of COVID19 our health and immunity should be at the utmost importance. Inspite of this we barely give enough time to our diet and nutrition.

Its very difficult to manage and plan our daily meals and even more difficult to track our daily nutrients intake.

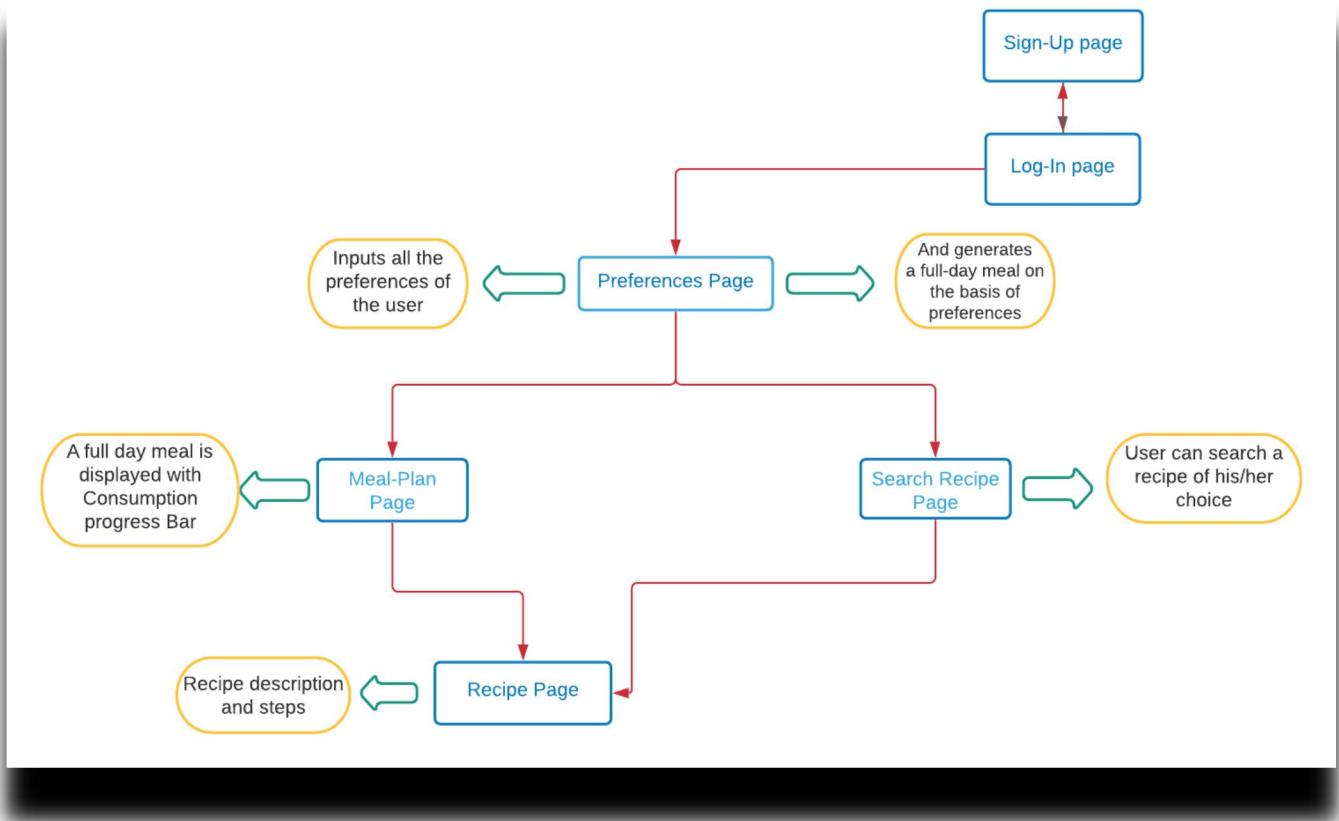
Among the enormous data present in the internet it becomes very time consuming to find new recipes and get all details of that recipe in one place.

INTRODUCTION

To provide a convenient solution to the above problems we have made a web application called Meal Wagon, where one can set his fitness goals and diet preferences and the website will guide him through his daily meal plans and nutrient intakes likes calories, protiens, fats, and carbs helping him reach his target fitness state in a convenient way.

Our application is also a one place solution for any new recipes the user may be looking for. The user has just has to enter the search word and the application will present a number of recipes related to the search word along with the ingredients, equipments and the nutrients associated with the recipes.

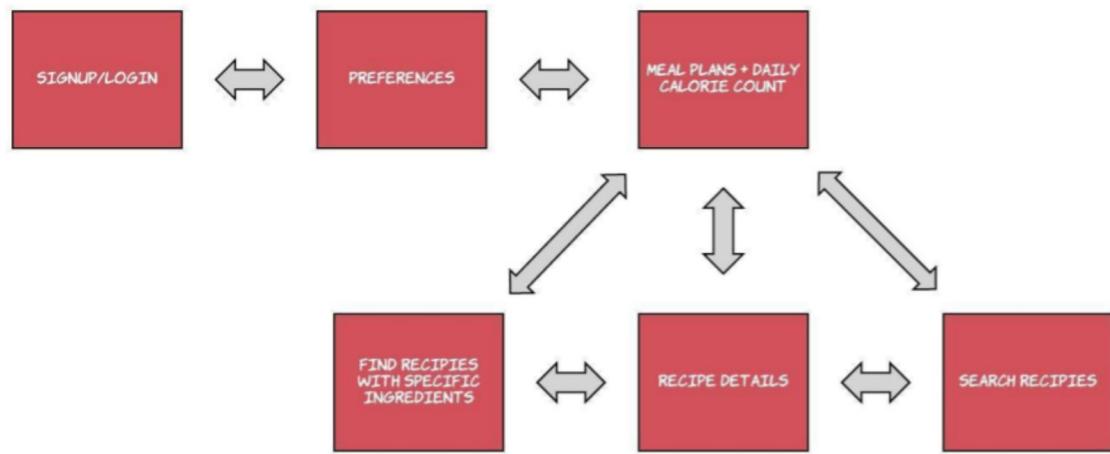
PROCESS FLOW DIAGRAM



FEATURES

- Given the target daily calories, meal type, and intolerances the app calculates the creates a daily or weekly meal plan.
- Users can search details of new recipes based on name,cuisine, etc
- The app will also track the user's daily and weekly caloric intake. Everytime he takes a meal from his meal plan we update the number of calories he has consumed that day and how much more he needs to. If he changes some meal in his meal plan with a new one , the calories will be updated accordingly.

ARCHITECTURE



MODULES

1. Front End

- HTML
- CSS
- Javascript

2. Back End - PHP

3. Database - MySql

4. API - <https://rapidapi.com/spoonacular/api/recipe-food-nutrition>

DATABASE DESIGN

1. User

1. Name
2. Weight
3. Gender
4. Height_ft
5. Height_in
6. Activity Factor
7. Goal
8. Daily Calorie Goal
9. Daily Protein Goals
10. Daily Carbs Goals
11. Daily Fats Goals
12. Daily Water Goals
13. Cuisine
14. UserID

2. Intolerance

1. User ID
2. Name

3. Meal_Plan

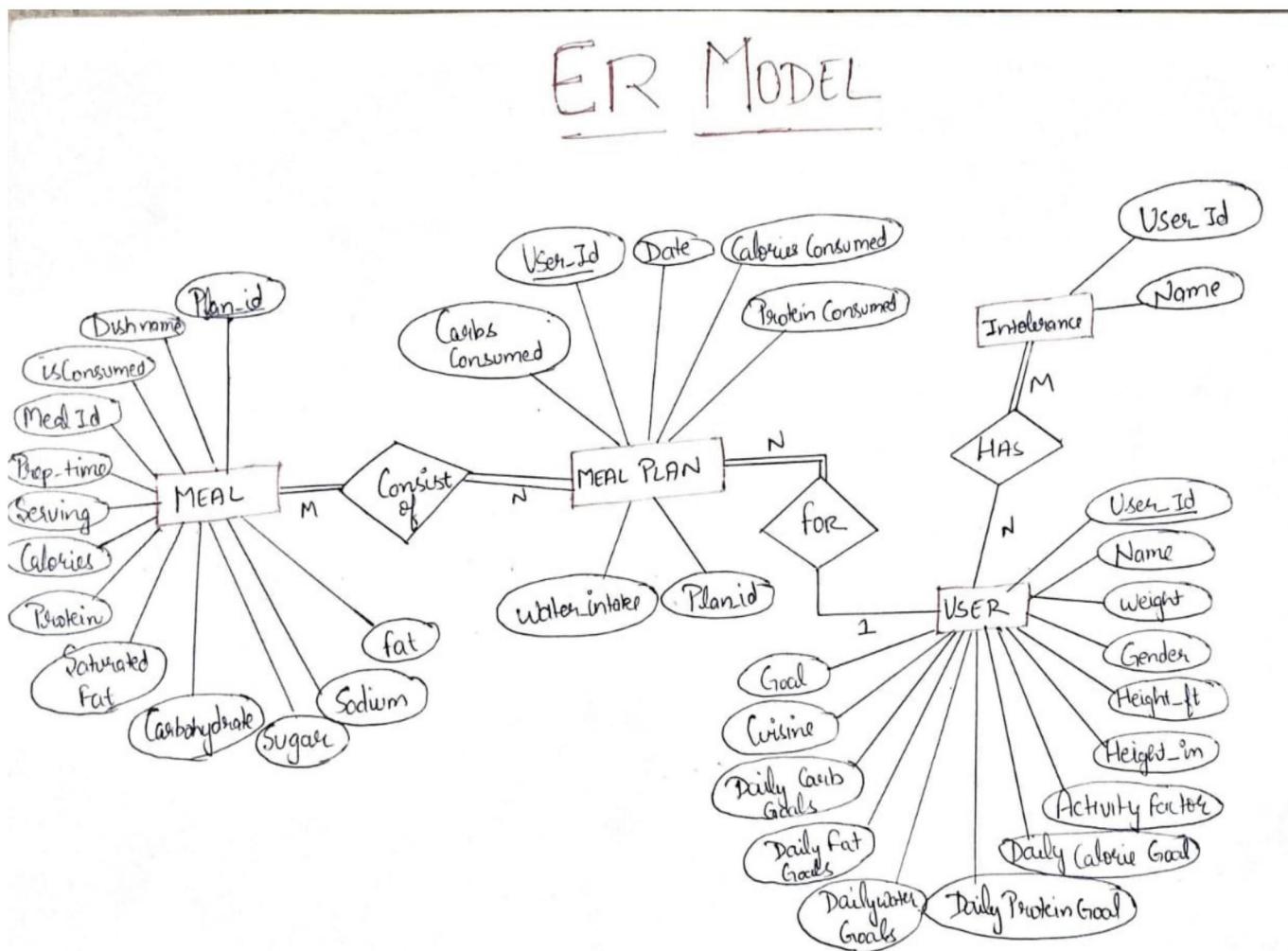
1. User ID
2. Date
3. Calories Consumed
4. Protein Consumed
5. Fats Consumed
6. Carbs Consumed
7. Water Intake
8. Plan Id

4. Meal

1. Plan Id
2. Dish name
3. isConsumed
4. MealId
5. Prep_Time
6. Servings
7. Calories
8. Protein

5. Fat
6. Saturated Fat
7. Carbohydrate
8. Sugar
9. Sodium

ER MODEL



DATABASE SCHEMA

User Schema

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	userId 	varchar(10)	utf8mb4_general_ci		No	None		 Change	 Drop  More
2	Name	varchar(30)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More
3	Weight	int(11)			Yes	NULL		 Change	 Drop  More
4	Gender	varchar(10)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More
5	Height_ft	int(11)			Yes	NULL		 Change	 Drop  More
6	Height_in	int(11)			Yes	NULL		 Change	 Drop  More
7	Goal	varchar(15)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More
8	Activity_Factor	int(11)			Yes	NULL		 Change	 Drop  More
9	Daily_Calorie_Target	int(11)			Yes	NULL		 Change	 Drop  More
10	Daily_Protein_Target	int(11)			Yes	NULL		 Change	 Drop  More
11	Daily_Carb_Target	int(11)			Yes	NULL		 Change	 Drop  More
12	Daily_Fat_Target	int(11)			Yes	NULL		 Change	 Drop  More
13	Daily_Water_Intake	int(11)			Yes	NULL		 Change	 Drop  More
14	Cuisine	varchar(30)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More

Intolerance Schema

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	userId 	varchar(10)	utf8mb4_general_ci		No	None		 Change	 Drop  More
2	Name	varchar(30)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More

Meal_Plan Schema

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	planId 	varchar(10)	utf8mb4_general_ci		No	None		 Change	 Drop  More
2	userId 	varchar(10)	utf8mb4_general_ci		Yes	NULL		 Change	 Drop  More
3	Date	date			Yes	NULL		 Change	 Drop  More
4	Calories_Consumed	int(11)			Yes	NULL		 Change	 Drop  More
5	Protein_Consumed	int(11)			Yes	NULL		 Change	 Drop  More
6	Fat_Consumed	int(11)			Yes	NULL		 Change	 Drop  More
7	Carb_Consumed	int(11)			Yes	NULL		 Change	 Drop  More
8	Water_Intake	int(11)			Yes	NULL		 Change	 Drop  More

Meal Schema

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	mealId 	varchar(10)	utf8mb4_general_ci		No	None		 Change  Drop  More	
<input type="checkbox"/>	2	planId 	varchar(10)	utf8mb4_general_ci		Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	3	isConsumed	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	4	name	varchar(30)	utf8mb4_general_ci		Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	5	type	varchar(20)	utf8mb4_general_ci		Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	6	prep_time	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	7	servings	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	8	calories	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	9	protein	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	10	fat	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	11	saturated_fat	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	12	carb	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	13	sugar	int(11)			Yes	NULL		 Change  Drop  More	
<input type="checkbox"/>	14	sodium	int(11)			Yes	NULL		 Change  Drop  More	

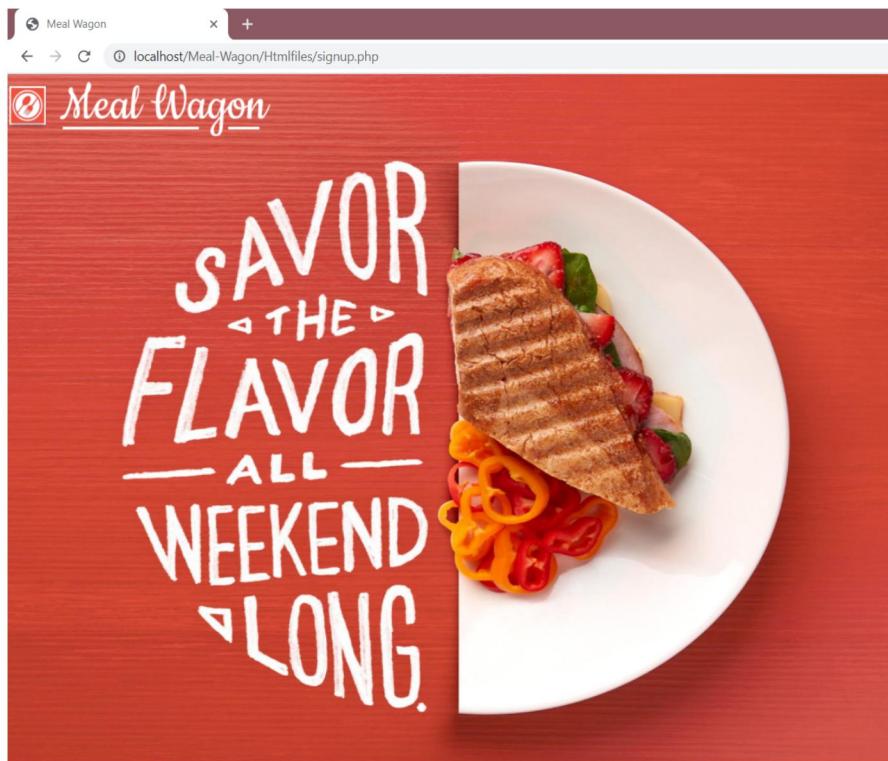
CONCLUSION

So we would like to conclude that, the problems regarding nutrition of people according to their preferred calories intake can be solved through this website. Moreover, the quest to search for different recipes along with their ingredients, steps, equipment and most important with all its nutrients can be easily assessed by this website. The personal user-account will monitor all your daily updates regarding nutrition with full privacy. This website will play an important role in making people fit and healthy

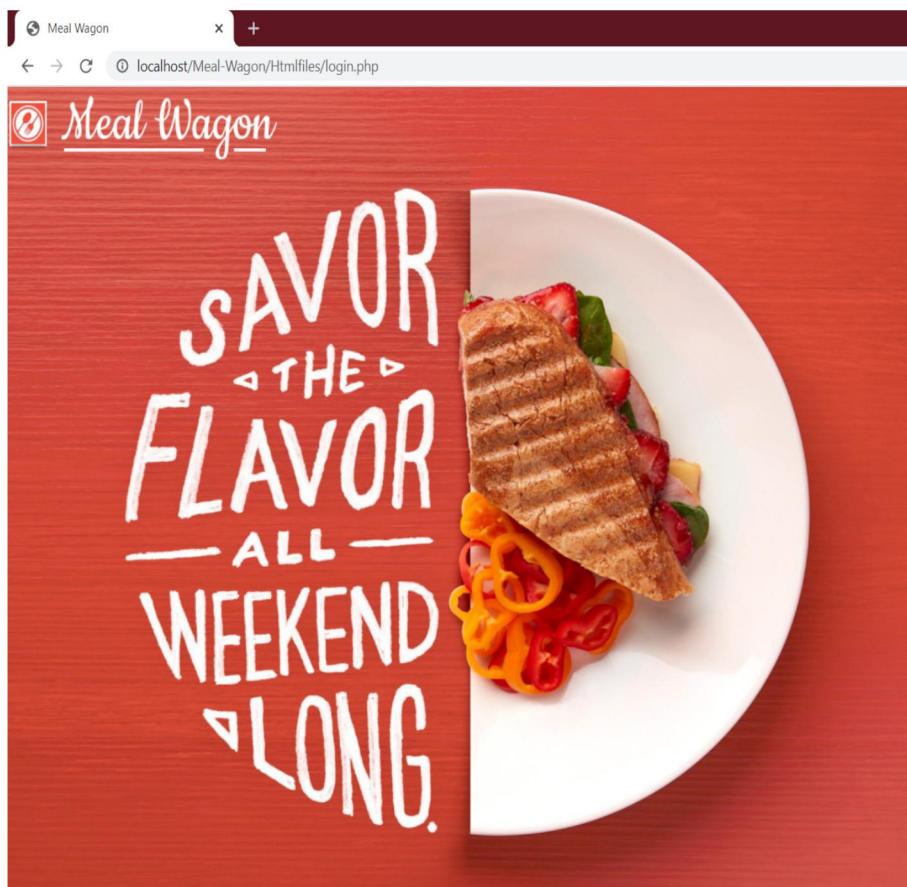
REFERENCES

- <https://rapidapi.com/spoonacular/api/recipe-food-nutrition>
- www.w3schools.com
- www.php.net

SNAPSHOTS



A screenshot of a web browser showing the Meal Wagon Signup page. The background features a wooden surface with a white plate holding a sandwich and some colorful bell pepper rings. To the left of the plate, there is promotional text: "SAVOR THE FLAVOR ALL WEEKEND LONG." The Meal Wagon logo is at the top left. On the right side, there is a circular user icon with a placeholder profile picture. Below it is a red "Sign Up" button. To the right of the button are four input fields: "Name" (with a person icon), "E-mail Address" (with an envelope icon), "Create Password" (with a lock icon), and "Confirm Password" (with a lock icon). At the bottom right is a red "Signup" button.



A screenshot of a web browser showing the Meal Wagon Login page. The background is the same as the Signup page, featuring a wooden surface with a white plate holding a sandwich and bell pepper rings. The Meal Wagon logo is at the top left. On the right side, there is a circular user icon with a placeholder profile picture. Below it is a red "Log In" button. To the right of the button are two input fields: "Username" (with a person icon) and "Password" (with a lock icon). At the bottom right is a red "Login" button. Below the "Login" button, there is a link: "New to Meal Wagon? Sign-Up now".

Today's Meal + localhost/Mean-Wagon/Htmlfiles/mealplan.php

Meal Wagon

search meals Preferences My Meal Hello, Shresth Raj

Today's Meal Plan

2 OCTOBER 2020

Fats: 87% Vitamins: 03% Proteins: 55% Carbohydrates: 45% Minerals: 12%

Today's Meal + localhost/Mean-Wagon/Htmlfiles/mealplan.php

Meal Wagon

search meals Preferences My Meal Hello, Shresth Raj

Iron Man Fritto
Ready In-20 min
Serving-4
Calories-300

CONSUMED **GET RECIPE**

View More

Iron Man Fritto
Ready In-20 min
Serving-4
Calories-300

CONSUMED **GET RECIPE**

View More

Iron Man Fritto
Ready In-20 min
Serving-4
Calories-300

CONSUMED **GET RECIPE**

View More

Generate New Meal

Meal_Wagon

localhost/Meal-Wagon/Htmlfiles/preferences.php

search meals

Preferences

My Meal

Hello First Name

your preferences

Help us with your eating habits, and we will plan your meals accordingly



ENTER DAILY CALORIES

Enter Calories

Not sure? Head over to [BMI/Calories calculator](#) to calculate your daily calories, BMR and much more.

Meal Wagon

localhost/Meal-Wagon/Htmlfiles/preferences.php

search meals

Preferences

My Meal

Hello First Name

CHOOSE DIET TYPE



Vegetarian



Gluten Free



Vegan



Ketogenic



Any

CUISINE

Choose a Cuisine ▾

INTOLERANCES

Select your Intolerances ▾

SAVE AND CONTINUE

Meal Wagon x +

localhost/Meal-Wagon/Htmlfiles/recipe.php

Meal Wagon search meals Preferences My Meal Hello, First Name



Chilli Lemone Rice

CALORIES - 200

Protiens - 34
Fat - 23
Saturated Fat - 3
Carbohydrate - 23
Sugar - 2.6
Sodium - 5

ADD TO MEAL

Meal Wagon x +

localhost/Meal-Wagon/Htmlfiles/recipe.php

Meal Wagon search meals Preferences My Meal Hello, First Name



Sugar - 2.6
Sodium - 5

ADD TO MEAL

INGREDIENTS	STEP	EQUIPMENT

INGREDIENTS STEP EQUIPMENT

Flour	2 TbSpn	
Granulated Sugar	2 TbSpn	
Fresh Lemon Juice	2 TbSpn	
Flour	2 TbSpn	
Fresh Lemon Juice	2 TbSpn	



Search Recipes

Explore world class dishes and include them in your daily meal plan

Select Your Ingredients

Chilli Potato Calories 100

The recipe Chicken Bbq could satisfy your American craving in about 1 hour.

[RECIPE](#) [ADD](#)

Chilli Potato Calories 100

The recipe Chicken Bbq could satisfy your American craving in about 1 hour.

[RECIPE](#) [ADD](#)

Chilli Potato Calories 100

The recipe Chicken Bbq could satisfy your American craving in about 1 hour.

[RECIPE](#) [ADD](#)

Meal Wagon

localhost/Mean-Wagon/Htmfiles/search.php

search meals

Preferences

Hello Shresth Raj

Select Your Ingredients

Breakfast

Lunch

Dinner

[Save](#)

Breakfast

Lunch

Dinner

[Save](#)

Chilli Potato Calories 100

The recipe Chicken Bbq could satisfy your American craving in about 1 hour.

[RECIPE](#) [ADD](#)

Authentication details

```
MySQL 5.7 Command Line Client
+-----+-----+
| id | name      | password | email
+-----+-----+
| 27 | Shresth Raj | 123     | shresth.nicks@gmail.com |
| 28 | Rohin       | 789     | rohin@gmail.com        |
+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from signin;
+-----+-----+
| id | name      | password | email
+-----+-----+
| 27 | Shresth Raj | 123     | shresth.nicks@gmail.com |
| 28 | Rohin       | 789     | rohin@gmail.com        |
| 29 | Jay         | 456     | jay@gmail.com          |
+-----+-----+
3 rows in set (0.00 sec)

mysql> desc signin;
+-----+-----+-----+-----+-----+-----+
| Field   | Type    | Null | Key | Default | Extra
+-----+-----+-----+-----+-----+-----+
| id      | int(255) | NO   | PRI | NULL    | auto_increment
| name    | varchar(255)| NO  |     | NULL    |
| password | varchar(255)| NO  |     | NULL    |
| email   | varchar(225)| YES |     | NULL    |
+-----+-----+-----+-----+-----+
4 rows in set (0.02 sec)

mysql>
```

SOURCE CODE

MEAL PAGE

```
138
139     echo '
140     <div class="card">
141         <div class="meals">
142             <h2>Breakfast</h2>
143             <div class="box-1">
144                 
145                 <div class="txt">
146                     <h3>'.$meal_title_a.'</h3>
147                     <h4>Ready In-' . $calories_array['meals'][0]['readyInMinutes'] . 'min <br>Servings-' . $calories_array['meals'][0]['servings'] . '</h4>
148                     <h4>Nutrients</h4>
149                     <h4>Protein-' . $recipe_array_a['nutrition']['nutrients'][9]['amount'] . '</h4>
150                     <h4>Fat-' . $recipe_array_a['nutrition']['nutrients'][1]['amount'] . '</h4>
151                     <h4>Saturated Fat-' . $recipe_array_a['nutrition']['nutrients'][2]['amount'] . '</h4>
152                     <h4>Carbohydrate-' . $recipe_array_a['nutrition']['nutrients'][3]['amount'] . '</h4>
153                     <h4>Sugar-' . $recipe_array_a['nutrition']['nutrients'][5]['amount'] . '</h4>
154                     <h4>Sodium-' . $recipe_array_a['nutrition']['nutrients'][7]['amount'] . '</h4>
155
156             </div>
157
158             <div class="btns">
159                 <a href="recipe.php?id=' . $calories_array['meals'][0]['id']."' class="recipe">Get Recipe</a>
160             </div>
161         </div>
162         <button class="view-more-1">View More</button>
163     </div>
164
165     <div class="meals">
166         <h2>Lunch</h2>
167         <div class="box-2">
168             
169             <div class="txt">
```

RECIPE PAGE

```
<a href="preferences.php">Preferences</a>
<a href="mealplan.php" class="active">My Meal</a>
<h2>Hello</h2>
</div>
</nav>
<?php
$id=$_GET['id'];
$recipe_url = "https://api.spoonacular.com/recipes/" . $id . "/information?apiKey=2212e7d4117843fbb2c07b357d8fa2e5&includeNutrition=true";
$recipe_json = file_get_contents($recipe_url);
$recipe = json_decode($recipe_json, true);
$ingredients_data = $recipe['extendedIngredients'];
$steps_data = $recipe['analyzedInstructions'];
$ingredients="";
$quantity="";
foreach($ingredients_data as $ingredient){
    $ingredients = $ingredients . $ingredient['name'] . ' ' . <br><br>;
    $quantity = $quantity . $ingredient['amount'] . ' ' . $ingredient['unit'] . ' ' . <br><br>;
}
$i=1;
$steps_string="";
foreach($steps_data as $steps){
    $s=$steps['steps'];
    foreach($s as $step){
        $steps_string = $steps_string . $i . ' ' . $step['step'] . '<br>';
        $i++;
    }
}
$equipment_url = "https://api.spoonacular.com/recipes/" . $id . "/equipmentWidget.json?apiKey=2212e7d4117843fbb2c07b357d8fa2e5";
$equipment_json = file_get_contents($equipment_url);
$equipments_data = json_decode($equipment_json, true);
$equipments = $equipments_data['equipment'];
$equipment_string = "";
```