

**DEPARTMENT OF COMPUTER SCIENCE**

**SCHOOL OF ENGINEERING AND TECHNOLOGY**

**PONDICHERRY UNIVERSITY**

**PUDUCHERRY - 605014**

**AUG - DEC 2020**

**CSSC513: COMPUTER NETWORKS & WEB TECHNOLOGY LAB**

**Project Report: Online Grocery Store**

**Submitted By:**

|  |  |
| --- | --- |
| 19370037 | RAJARSI SAHA |
| 19370045 | SAWON BHATTACHARYA |

1. **INTRODUCTION**

In today’s tech world most consumers are looking online for information that will help them make smarter purchasing decisions. In fact, according to the e-commerce Foundation, 88% of consumers will research product information before they make a purchase online or in the store. This buying behaviour trend emphasizes the importance of a website for today’s businesses.

Hence in any business website serves as that “home base” where they can send customers when they want to make a purchase or learn more about a particular product or service they offer.

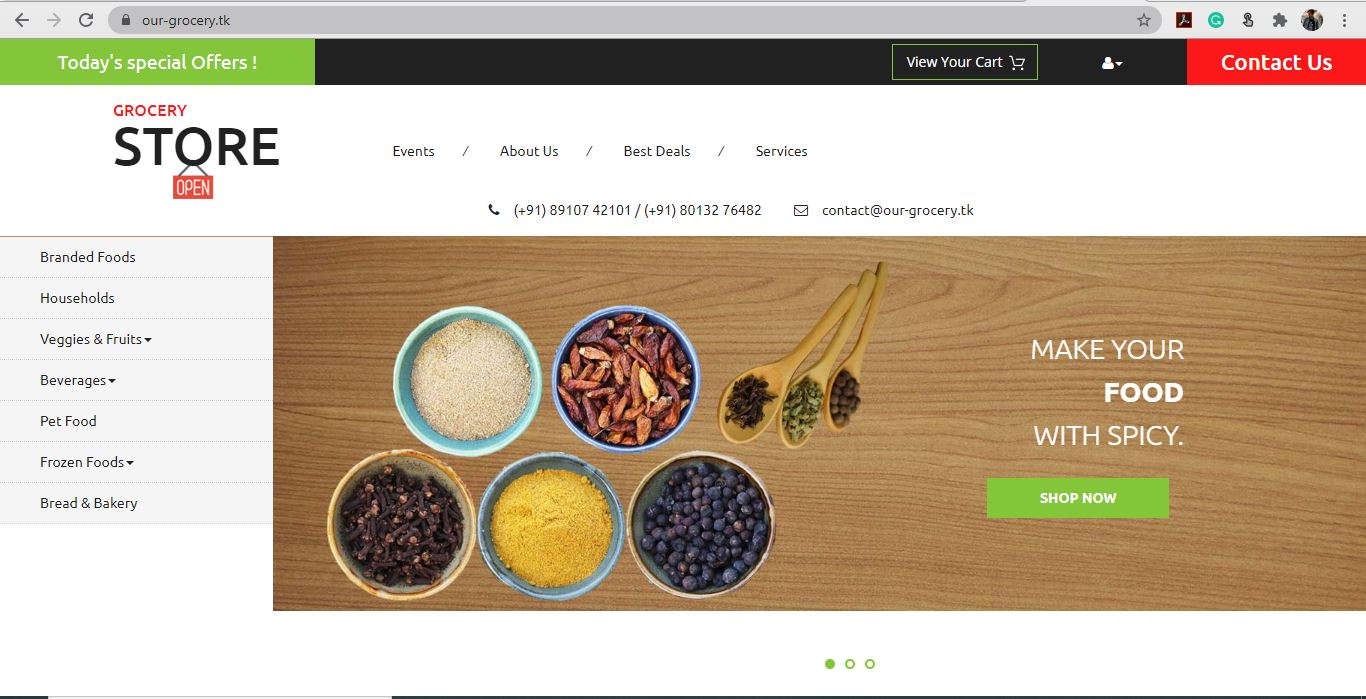


Fig (1): Home Page

For this project we have chosen the topic “Online grocery system”. Now days, people often order their grocery products through online mode. Here in this website visitors can come and browse the products and their prices. If they are willing to purchase anything then they have to register first and only after login they can add the products in their cart.

1. **WORKFLOW WITH DIAGRAM**

In every dynamic and interactive website database in the backend is the one of the important components. At the initial stage the database is designed by creating the ER-Diagram. Basically, here database is created to store the data for each customer and the details of the products of the store. Here the relation between the online grocery store and customers is one to many just like the relation between online grocery store and the products. But at a time, each customer can have one address only hence the relationship is one to one here.

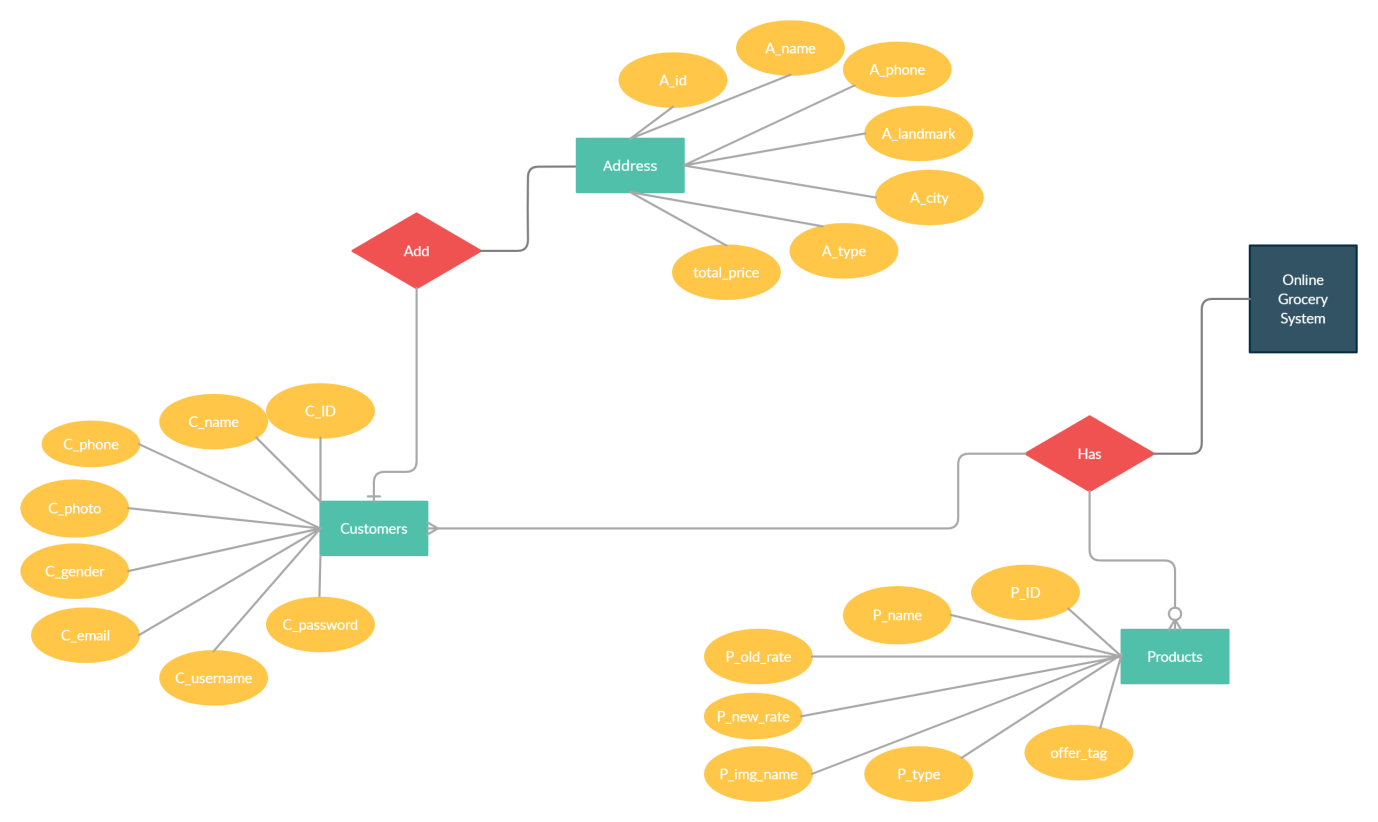


Fig (2): ER-Diagram of the online grocery store

Here, customers or visitors are the most important part of this kind of websites. The UI of the web application has been kept simple so that different types of users can use the website smoothly without any problems. Initially, the visitors or customers can browse in the website but if they want to purchase something then they have to login. If they have not registered yet then they have to register themselves by providing details like name, phone number, email address etc.

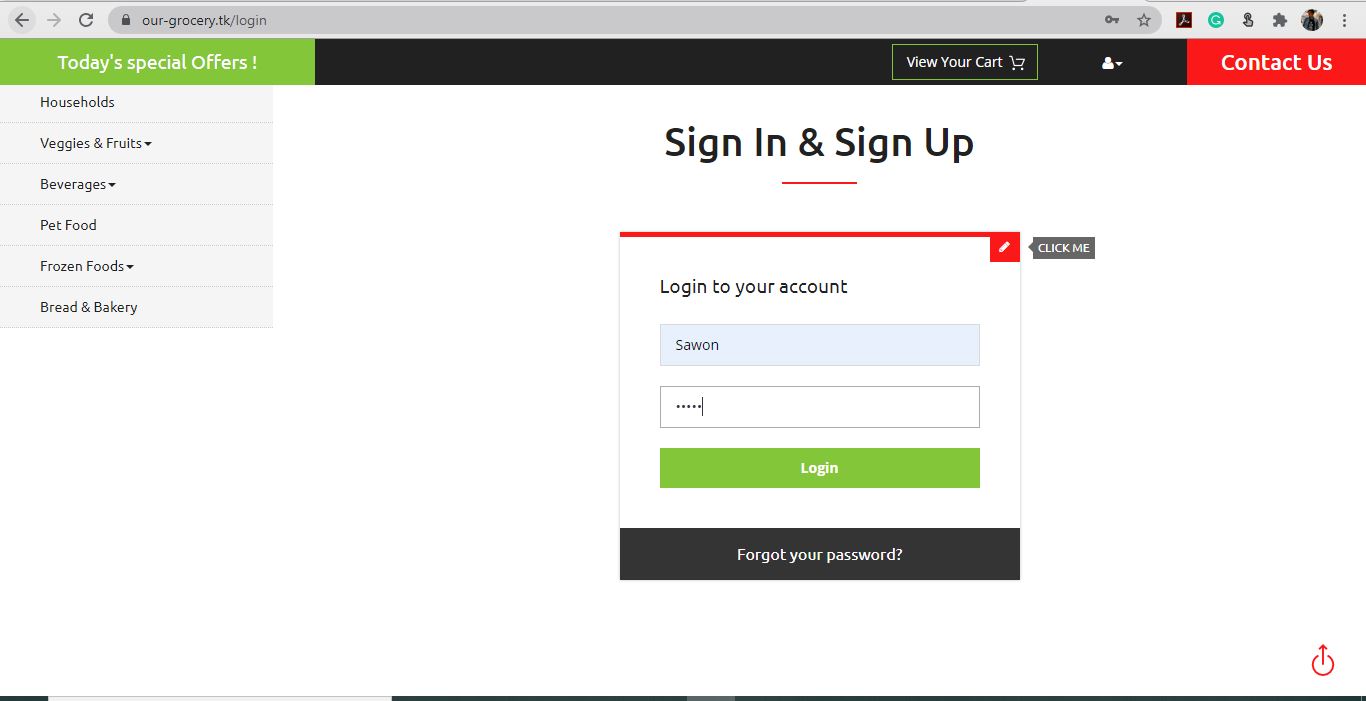


Fig (3): Login Screen

**HOME**

**LOGIN/SIGNUP MENU**

**LOGIN**

**ENTER DETAILS**

**LOGIN**

Fig (4): Login process flowchart

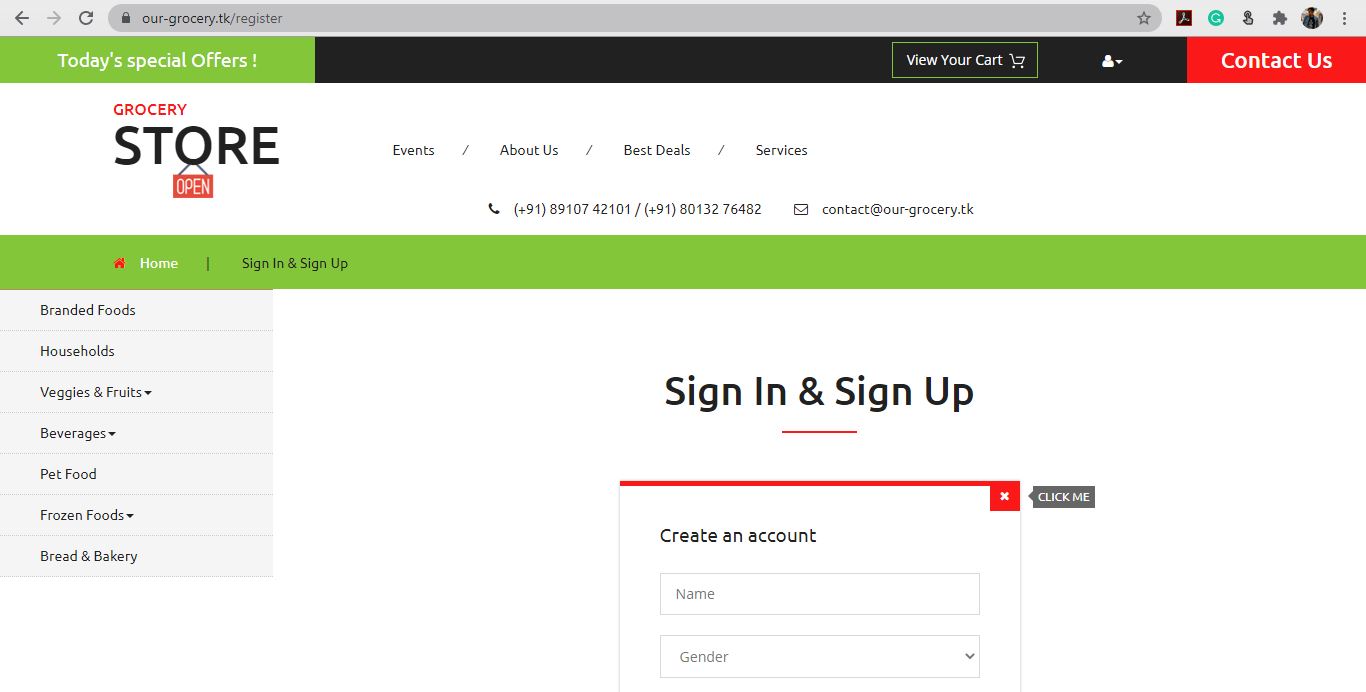


Fig (5a): Registration

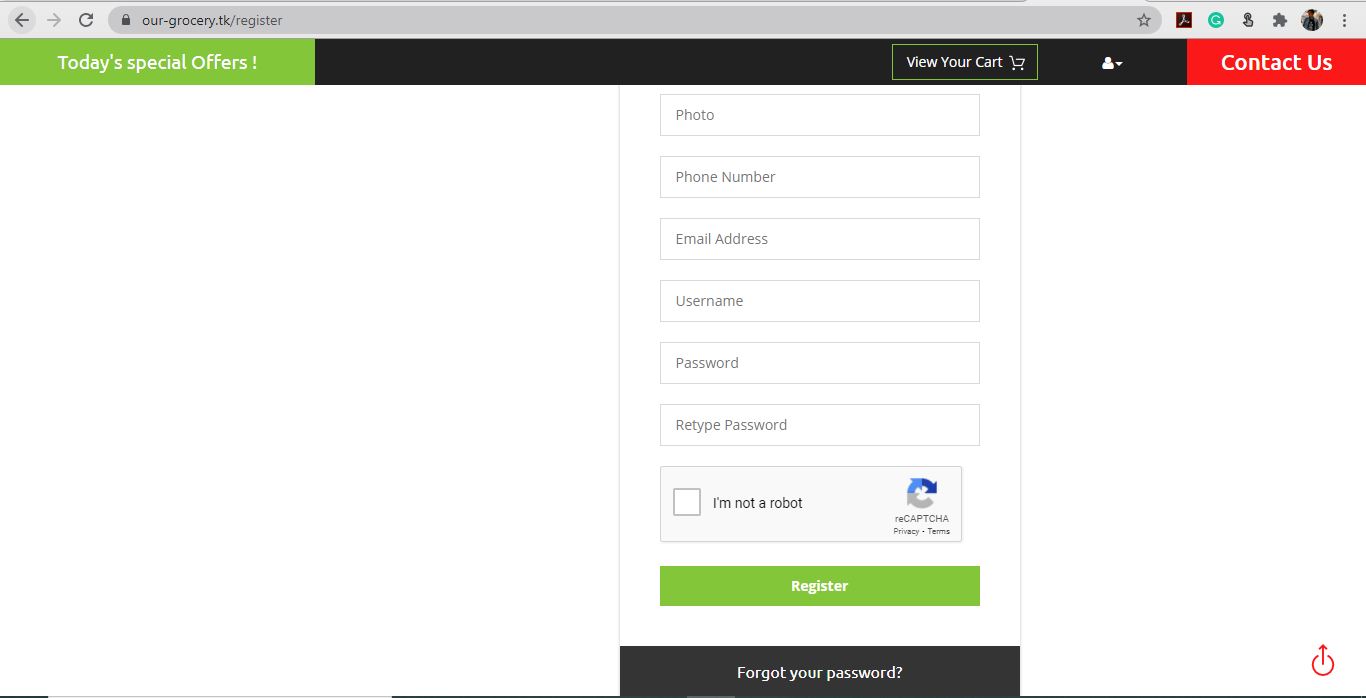


Fig (5b): Registration

**HOME**

**LOGIN/SIGNUP MENU**

**SIGNUP**

**ENTER DETAILS**

**CONFIRM CAPTCHA**

**REGISTER**

Fig (6): Registration process flowchart

After sign up and login customer can add products to their cart. Now we have added a little constraint that one customer should add more than two products to checkout. This is done to make wise and fair use of the online resources. During checkout they have to give the details of the address where the store will deliver the products they have ordered.

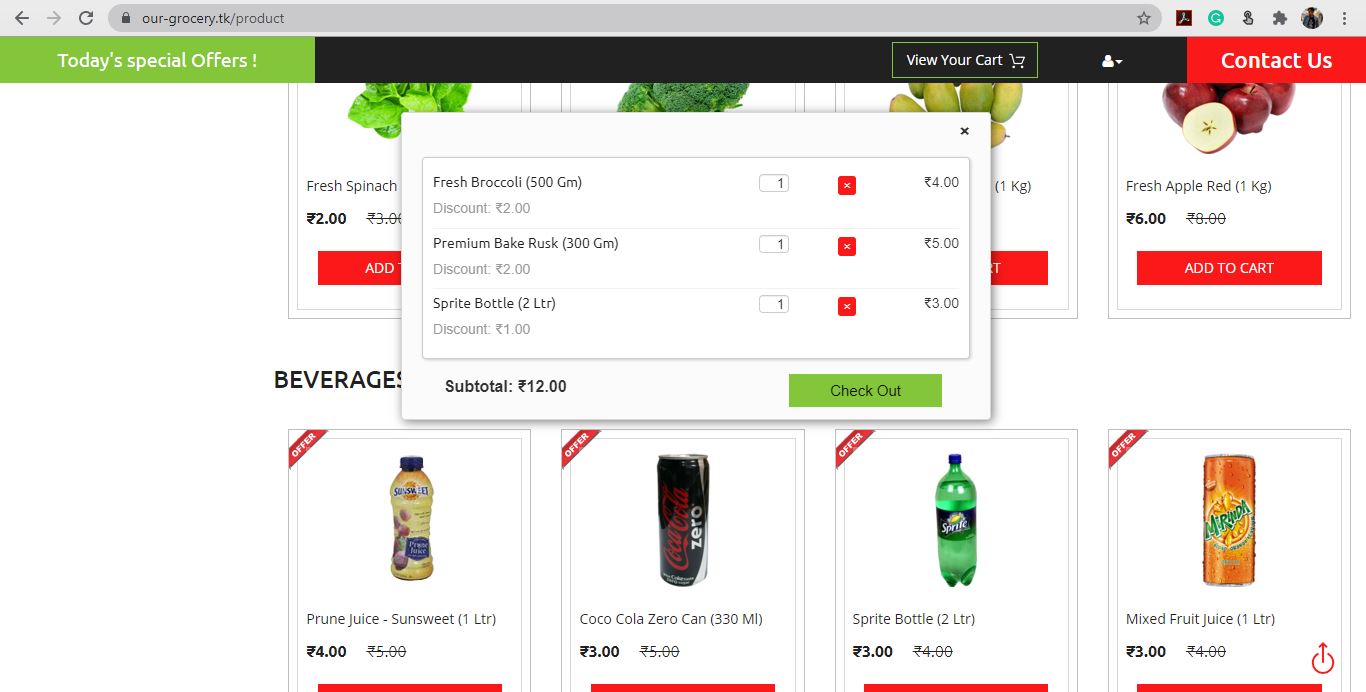


Fig (7a): Cart details

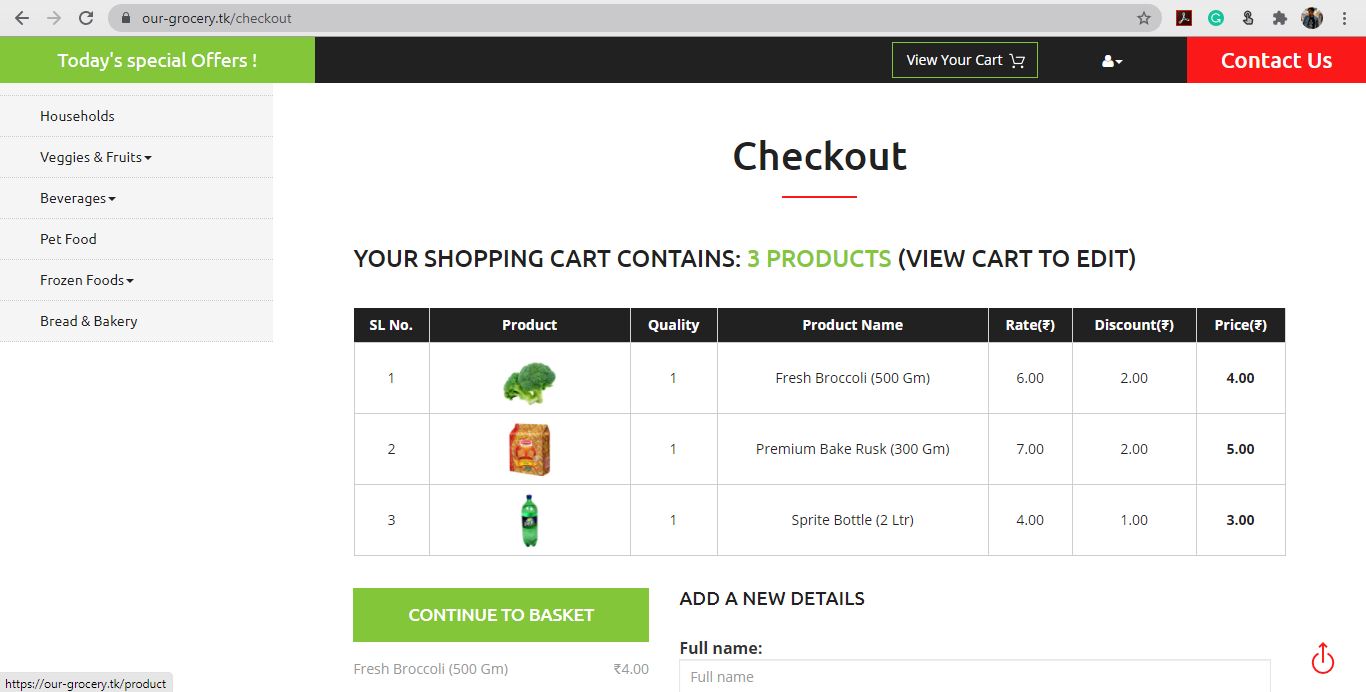
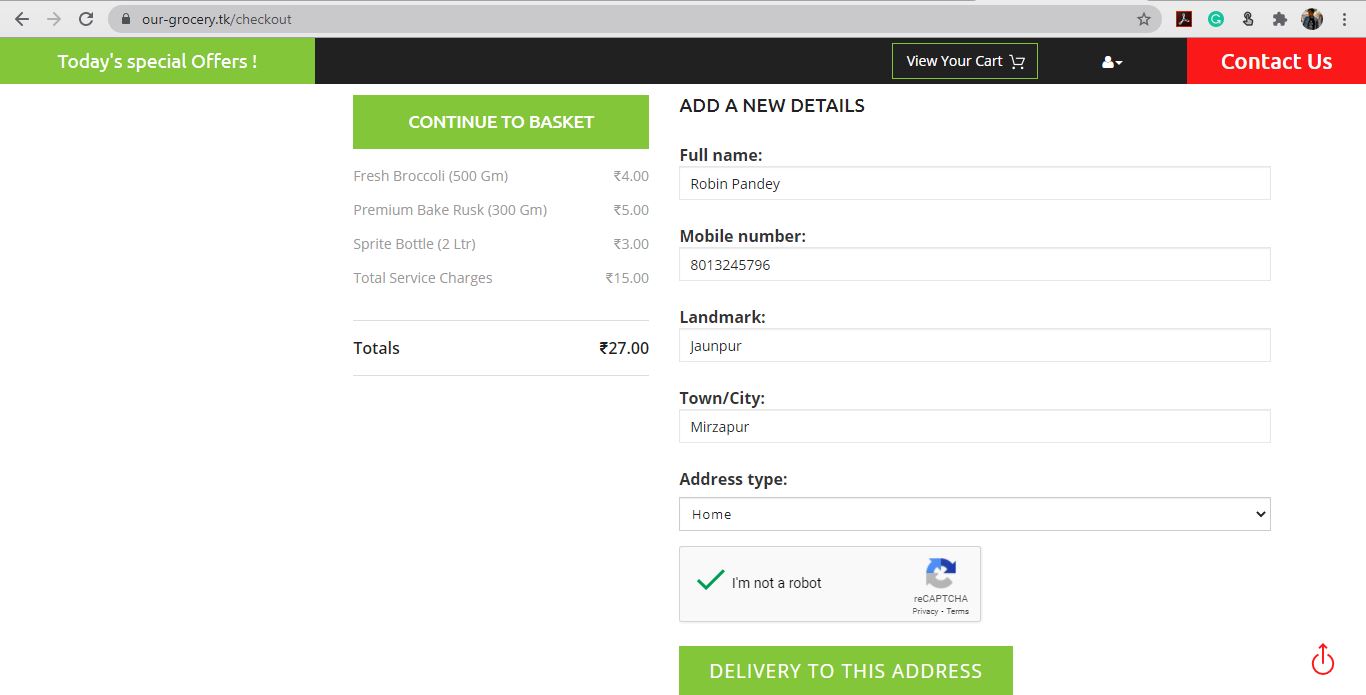


Fig (7b): Checkout billing details

Fig (8): Address details for checking out from the cart

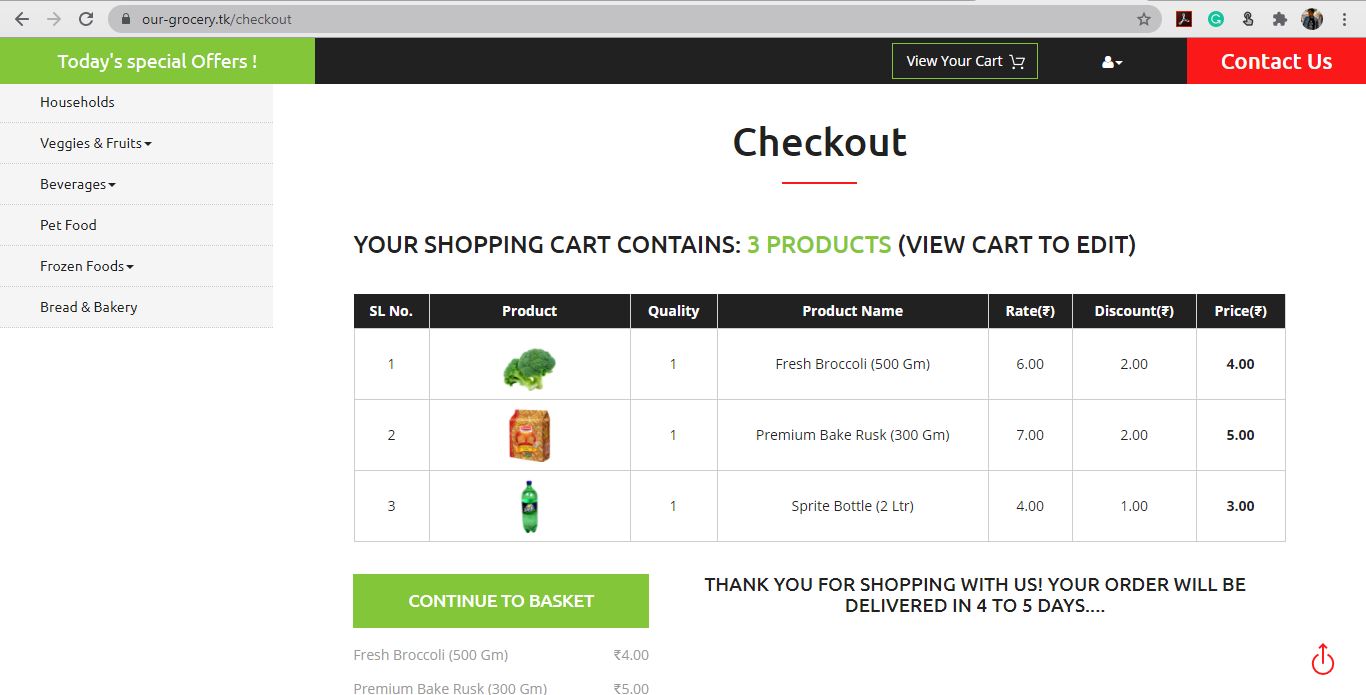


Fig (9): Checkout final message

**CHECKOUT**

**REVIEW**

**ADD DETAILS**

**CONFIRM CAPTCHA**

**DELIVERY**

Fig (10): Checkout and Billing process flowchart

1. **WEBSITE AND HOSTING DETAILS**

DOMAIN URL: <https://our-grocery.tk> or <https://www.our-grocery.tk>

Connection secured using Cloudflare SSL and DNS service (http request will be automatically redirected to https)

HOSTING: 000webhost.com

DATABASE: default hosting database (phpmyadmin)

EMAIL SERVICE: SendGrid’s SMTP service

EMAIL FORWARDING: Forward Email © Niftylettuce, LLC

CAPTCHA: Google reCAPTCHA v2 Tickbox

1. **CODE**

**signin.php (Backend Script for logging a user in the website)**

<?php

    require\_once "db\_controller.php";

    $db\_handle = new DBController();

    if($\_SERVER["REQUEST\_METHOD"] == "POST"){

        if(!isset($\_COOKIE["u\_id"])) {

            if(!empty($\_POST["Username"]) && !empty($\_POST["Password"])) {

                $query = "SELECT c\_password FROM customer WHERE c\_email LIKE '".$\_POST["Username"]."' OR c\_username LIKE '".$\_POST["Username"]."' LIMIT 1;";

                $db\_pass =  $db\_handle->fetch($query);

                if($db\_pass) {

                    if($db\_pass[0]["c\_password"] == md5($\_POST["Password"])) {

                        $query = "SELECT c\_id FROM customer WHERE c\_email LIKE '".$\_POST["Username"]."' OR c\_username LIKE '".$\_POST["Username"]."' LIMIT 1;";

                        $result = $db\_handle->fetch($query);

                        setrawcookie("u\_id", rawurlencode($result[0]['c\_id']), time() + (86400 \* 30), "/");

                        echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Login Success!</h3></div>";

                    }

                    else {

                        echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Wrong Password!</h3></div>";

                    }

                }

                else {

                    echo "<div style='margin: 2em 1em 2em 1em; padding-bottom: 3em; text-align: center;'><h3>User not available!</h3><h4 style='padding-top: 1em;'>Taking you to registration page...</h4></div><script>setTimeout(function() {location.href = '/register';}, 1000);</script>";

                }

            }

        }

        else {

            echo "<div style='margin: 2em 1em 2em 1em; padding-bottom: 3em; text-align: center;'><h3>Already logged in!</h3></div><script>setTimeout(function() {location.reload();}, 1500);</script>";

        }

    }

?>

**signup.php (Backend Script for registering & logging a user in the website)**

<?php

  require\_once "db\_controller.php";

  $db\_handle = new DBController();

  if($\_SERVER["REQUEST\_METHOD"] == "POST"){

    $response = json\_decode(file\_get\_contents("https://www.google.com/recaptcha/api/siteverify?secret=6LeZk-wZAAAAAIVpEl00hrRxrx7CGPVHURY8yEIt&response=".$\_POST['g-recaptcha-response']."&remoteip=".$\_SERVER['REMOTE\_ADDR']), true);

    if($response['success']) {

      $name = trim($\_POST['Name']);

      $gender = $\_POST['Gender'];

      $phone = $\_POST['Phone'];

      $email = trim($\_POST['Email']);

      $username = trim($\_POST['Username']);

      $password = md5(trim($\_POST['Password']));

      $query = "SELECT \* FROM customer WHERE c\_username LIKE '".$username."' OR c\_email LIKE '".$email."' LIMIT 1;";

      $result =  $db\_handle->fetch($query);

      if(!$result) {

        $query = "SELECT c\_id FROM customer ORDER BY c\_id DESC LIMIT 1";

        $result = $db\_handle->fetch($query);

        $i = "0";

        if($result) {

          $i = $result[0]['c\_id'];

        }

        $imageFileType = strtolower(pathinfo(basename($\_FILES['Photo']['name']), PATHINFO\_EXTENSION));

        $target\_file = "../uploads/image".$i.".".$imageFileType;

        $query = "INSERT INTO customer (c\_name, c\_gender, c\_photo, c\_phone, c\_email, c\_username, c\_password) VALUES('".$name."', '".$gender."', '".$target\_file."', '".$phone."', '".$email."', '".$username."', '".$password."');";

        $result =  $db\_handle->run($query);

        if($result) {

          if(move\_uploaded\_file($\_FILES["Photo"]["tmp\_name"], $target\_file)) {

            $query = "SELECT c\_id FROM customer WHERE c\_name LIKE '".$name."' LIMIT 1;";

            $result = $db\_handle->fetch($query);

            setrawcookie("u\_id", rawurlencode($result[0]['c\_id']), time() + (86400 \* 30), "/");

            echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Registration Success!</h3><br><h4 style='padding: 1em 1em 1em 1em;'>You are logged in!</h4></div>";

          }

          else {

            echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Image could not be uploaded!</h3></div>";

          }

        }

      }

      else {

        echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Email exists!</h3></div>";

      }

    }

    else {

      echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Security check failed!</h3></div></br><script>setTimeout(function() {location.reload();}, 1500);</script>";

    }

  }

?>

**savedetails.php (Backend Script for checking out the customer)**

<?php

  session\_start();

  require\_once "db\_controller.php";

  $db\_handle = new DBController();

  if($\_SERVER["REQUEST\_METHOD"] == "POST"){

    $response = json\_decode(file\_get\_contents("https://www.google.com/recaptcha/api/siteverify?secret=6LeZk-wZAAAAAIVpEl00hrRxrx7CGPVHURY8yEIt&response=".$\_POST['g-recaptcha-response']."&remoteip=".$\_SERVER['REMOTE\_ADDR']), true);

    if($response['success']) {

      if(!isset($\_COOKIE['u\_id'])) {

        setrawcookie("pay", "1", time() + 86400, "/");

        echo "<h4 style='text-align: center;'>You're not logged in!</h4></br><h5 style='text-align: center;'>Redirecting you to login page...</h5><script>setTimeout(function() {location.href = '/login';}, 2500);</script>";

      }

      else{

        $name = $\_POST['Name'];

        $phone = $\_POST['Phone'];

        $landmark = $\_POST['Landmark'];

        $city = $\_POST['City'];

        $type = $\_POST['Address\_type'];

        $total\_price = $\_POST['Amount'];

        $query = "INSERT INTO address\_details (a\_name, a\_phone, a\_landmark, a\_city, a\_type, total\_price) VALUES('".$name."',  '".$phone."', '".$landmark."', '".$city."', '".$type."', '".$total\_price."');";

        $result =  $db\_handle->run($query);

        if($result) {

          echo "<h4 style='text-align: center;'>Thank you for shopping with us! Your order will be delivered in 4 to 5 days....</h4><script>setTimeout(function() {location.href = '/home';}, 5000);

            paypal.minicart.reset();</script>";

        }

        else{

          echo "<h4 style='text-align: center;'>Data failed to be inserted!</h4><script>setTimeout(function() {location.reload();}, 1500);</script>";

        }

      }

    }

    else {

      echo "<h4 style='text-align: center;'>Security check failed!</h4></br><script>setTimeout(function() {location.reload();}, 1500);</script>";

    }

  }

?>

**Partial front end code to render product and product details**

<h3>Energy Drinks</h3>

                <div class="w3ls\_w3l\_banner\_nav\_right\_grid1">

                    <?php

                        $\_SESSION['TYPE'] = 'energydrinks';

                        $\_SESSION['LIMIT'] = '4';

                        $\_SESSION['OFFSET'] = '0';

                        include('php/fetch-prod.php');

                    ?>

                    <div class="clearfix"> </div>

                </div>

**fetch-prod.php (Backend Script for fetching product details from database)**

<?php

    require\_once "php/db\_controller.php";

    $db\_handle = new DBController();

    $query = "SELECT \* FROM product\_details WHERE p\_type LIKE '".$\_SESSION['TYPE']."' LIMIT ".$\_SESSION['LIMIT']." OFFSET ".$\_SESSION['OFFSET'].";";

    $result =  $db\_handle->fetch($query);

    $\_SESSION['TYPE'] = '';

    $\_SESSION['LIMIT'] = '0';

    $\_SESSION['OFFSET'] = '0';

    if($result) {

        for($i=0; $i<count($result); $i++) {

            $p\_name = strval($result[$i]["p\_name"]);

            $p\_amt = strval($result[$i]["p\_new\_rate"]);

            $p\_o\_amt = strval($result[$i]["p\_old\_rate"]);

            $p\_img = strval($result[$i]["p\_img\_name"]);

            $of\_tg = intval($result[$i]["offer\_tag"]);

            $of\_tg\_img = "";

            $d\_amt = number\_format(doubleval($p\_o\_amt) - doubleval($p\_amt), 2, '.', '');

            if($of\_tg == 0) {

                $of\_tg\_img = "<div class=\"agile\_top\_brand\_left\_grid\_pos\"><img src=\"images/offer.png\" alt=\" \" class=\"img-responsive\" /></div>";

            }

            else {

                $of\_tg\_img = "<div class=\"tag\"><img src=\"images/tag.png\" alt=\" \" class=\"img-responsive\" /></div>";

            }

            echo "<div class=\"col-md-3 w3ls\_w3l\_banner\_left\">

                <div class=\"hover14 column\">

                    <div class=\"agile\_top\_brand\_left\_grid w3l\_agile\_top\_brand\_left\_grid\">

                        ".$of\_tg\_img."

                        <div class=\"agile\_top\_brand\_left\_grid1\">

                            <figure>

                                <div class=\"snipcart-item block\">

                                    <div class=\"snipcart-thumb\">

                                        <a href=\"/single\"><img src=\"".$p\_img."\" alt=\" \" class=\"img-responsive\" /></a>

                                        <p>".$p\_name."</p>

                                        <h4>₹".$p\_amt." <span>₹".$p\_o\_amt."</span></h4>

                                    </div>

                                    <div class=\"snipcart-details\">

                                        <form id=\"cart-1\" action=\"#\" method=\"post\">

                                            <fieldset>

                                                <input type=\"hidden\" name=\"cmd\" value=\"\_cart\" />

                                                <input type=\"hidden\" name=\"add\" value=\"1\" />

                                                <input type=\"hidden\" name=\"business\" value=\" \" />

                                                <input type=\"hidden\" name=\"item\_name\" value=\"".$p\_name."\" />

                                                <input type=\"hidden\" name=\"amount\" value=\"".$p\_o\_amt."\" />

                                                <input type=\"hidden\" name=\"discount\_amount\" value=\"".$d\_amt."\" />

                                                <input type=\"hidden\" name=\"currency\_code\" value=\"INR\" />

                                                <input type=\"hidden\" name=\"return\" value=\" \" />

                                                <input type=\"hidden\" name=\"cancel\_return\" value=\" \" />

                                                <input type=\"submit\" name=\"submit\" value=\"Add to cart\" class=\"button\" />

                                            </fieldset>

                                        </form>

                                    </div>

                                </div>

                            </figure>

                        </div>

                    </div>

                </div>

            </div>";

        }

    }

?>

**Partial front end code to render a admin console to facilitate quick use of the database**

<h3>ADMIN DB PANEL</h3>

                <div class="w3\_login\_module" style="min-height: 300px;">

                <div class="module form-module">

                    <div style="height: 5vh; "></div>

                    <div class="form">

                        <form id="db" enctype="multipart/form-data">

                            <input id="input" type="hidden" value="" name="data">

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(1)">CREATE CUSTOMER TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(2)">CREATE CART TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(3)">CREATE ADDRESS\_DETAILS TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(4)">DROP CUSTOMER TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(5)">DROP CART TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(6)">DROP ADDRESS\_DETAILS TABLE</button>

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="window.open('https://databases.000webhost.com/db\_structure.php?server=1&db=id15407179\_grocery', '\_blank');">PHPMYADMIN DATABASE</button>

                            <input type="file" name="file" style="color: #fff; width: 40%; margin: 0.25em auto 0.25em auto;" accept=".csv">

                            <button type="button" style="color: #fff; width: 100%; margin: 0.25em;" onclick="submitForm(7)">UPDATE PRODUCTS</button>

                            <div id="msg"></div>

                        </form>

                    </div>

                    <script>

                        function submitForm(n) {

                            $('#input').attr('value', n)

                            $('#msg').html('');

                            var data = new FormData($('form')[0]);

                            $.ajax({

                                type : 'POST',

                                url  : 'php/db.php',

                                data : data,

                                processData: false,

                                contentType: false,

                                success : function(data){

                                    $("#msg").html(data);

                                    $("#db")[0].reset();

                                }

                            });

                        }

                    </script>

                </div>

**Note:** jQuery $.ajax() facilitates quick use of the AJAX features with few lines of code compared to the traditional XMLHttpRequest() which required many lines to code to fire a GET or POST request.

**reset.php (Backend Script for sending a password reset email and set token as cookie)**

<?php

    require\_once "db\_controller.php";

    $db\_handle = new DBController();

    $headers = 'MIME-Version: 1.0' . "\r\n";

    $headers .= "From: reset@our-grocery.tk\r\n";

    $headers .= 'Content-type: text/html; charset=iso-8859-1' . "\r\n";

    if($\_SERVER["REQUEST\_METHOD"] == "POST"){

        if(!isset($\_COOKIE["u\_id"])) {

            if(!empty($\_POST["Username"])) {

                $query = "SELECT c\_id, c\_email FROM customer WHERE c\_email LIKE '".$\_POST["Username"]."' OR c\_username LIKE '".$\_POST["Username"]."' LIMIT 1;";

                $db\_pass =  $db\_handle->fetch($query);

                if($db\_pass) {

                    $token = hash("sha256", rand());

                    $message = "<!DOCTYPE html>

                        <head>

                            <meta charset='UTF-8'>

                            <link href='https://stackpath.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css' rel='stylesheet' type='text/css'/>

                            <title>Verify Email</title>

                        </head>

                        <body>

                            <div style='text-align: center; width: 100%;'>

                                <h3>Password Reset</h3>

                                <h4>Please click the button below to reset your password. </br>Only valid for 10 minutes!</h4>

                                <p><a href='https://our-grocery.tk/password?token=$token' style='border-radius: 5px; background-color: #007bff; color: #fff; padding: 10px; text-decoration: none; font-weight: bold; font-size: 13px;'>Reset Password</a></p>

                            </div>

                        </body>

                    </html>";

                    if(@mail($db\_pass[0]['c\_email'], 'Our Grocery Password Reset', $message, $headers)) {

                        setrawcookie("token", rawurlencode($token), time() + 600, "/");

                        setrawcookie("user", rawurlencode($db\_pass[0]['c\_id']), time() + 600, "/");

                        echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Reset Link sent to your email!</h3></div>";

                    }

                    else {

                        echo "<div style='margin: 1em 1em 1em 1em; text-align: center;'><h3>Email failedl!</h3></div>";

                    }

                }

                else {

                    echo "<div style='margin: 2em 1em 2em 1em; padding-bottom: 3em; text-align: center;'><h3>User not registered with us!</h3><h4 style='padding-top: 1em;'>Taking you to registration page...</h4></div><script>setTimeout(function() {location.href = '/register';}, 1000);</script>";

                }

            }

        }

        else {

            echo "<div style='margin: 2em 1em 2em 1em; padding-bottom: 3em; text-align: center;'><h3>Already logged in!</h3></div><script>setTimeout(function() {location.href='/login';}, 1500);</script>";

        }

    }

?>

1. **MORE SCREENSHOTS**

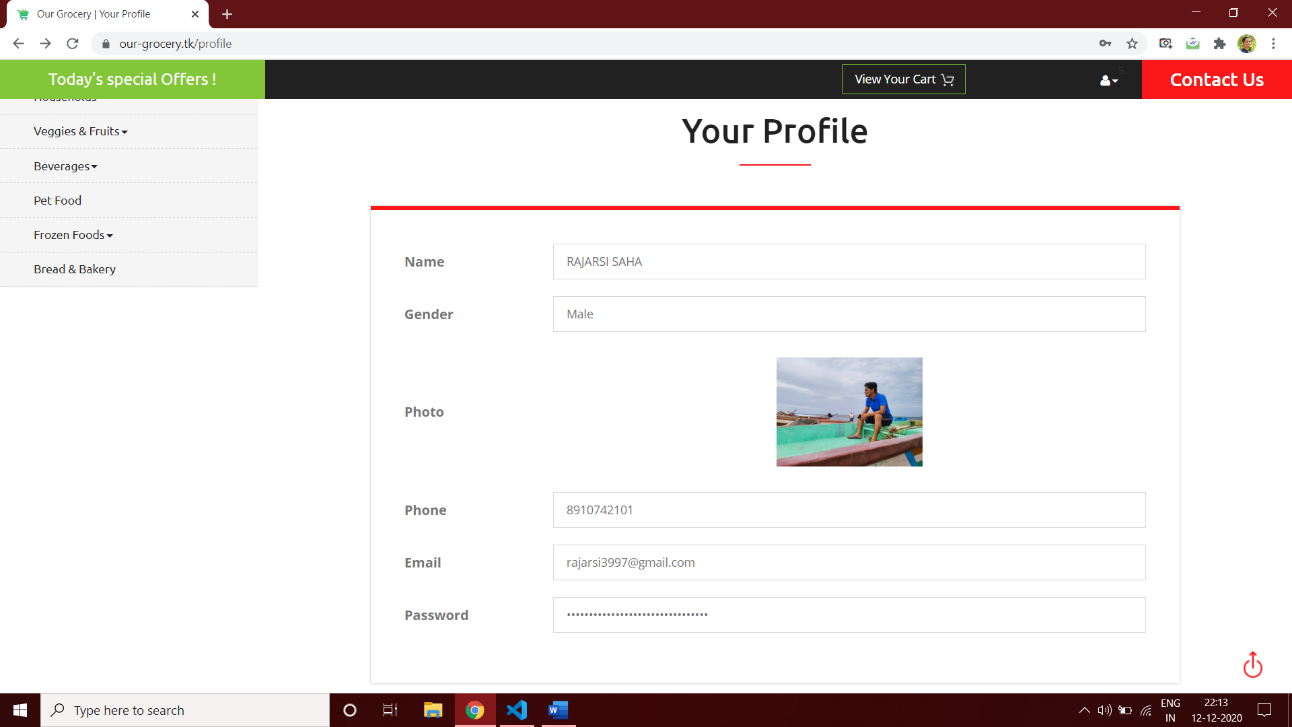


Fig (11): User Profile page

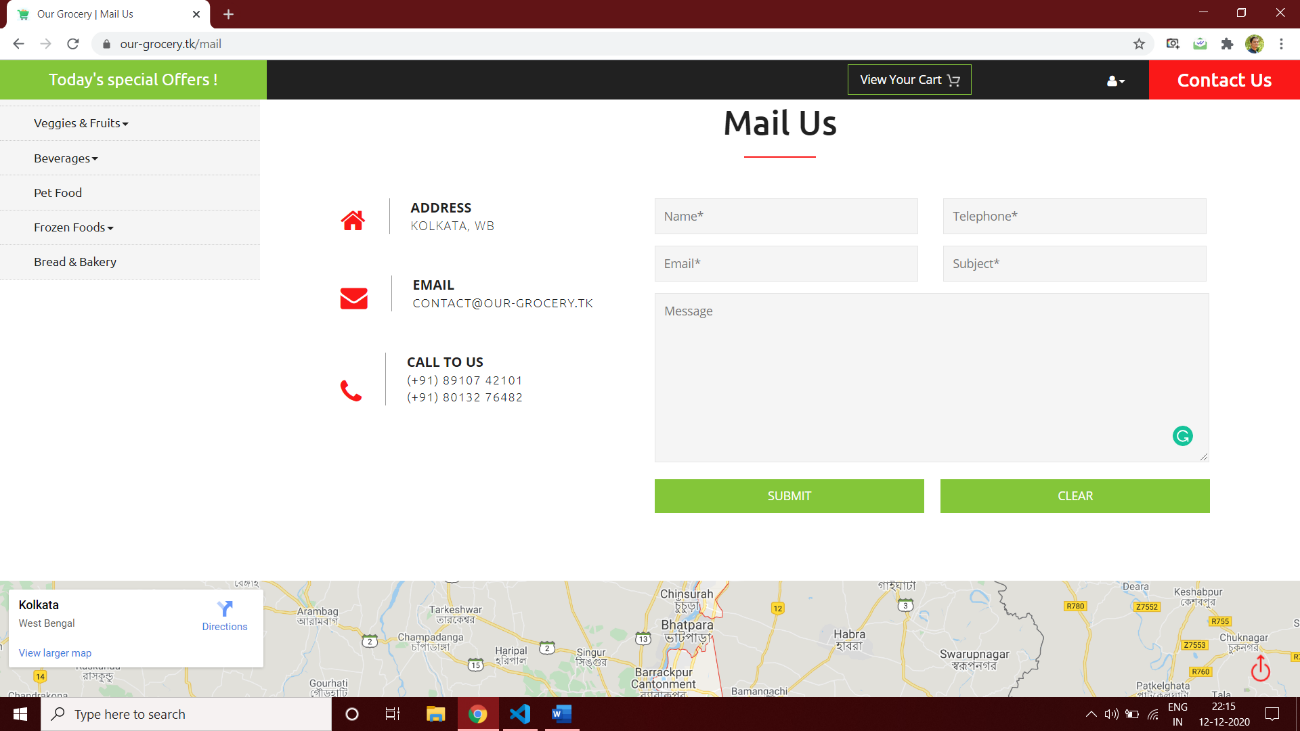


Fig (12): Mail and Contact page

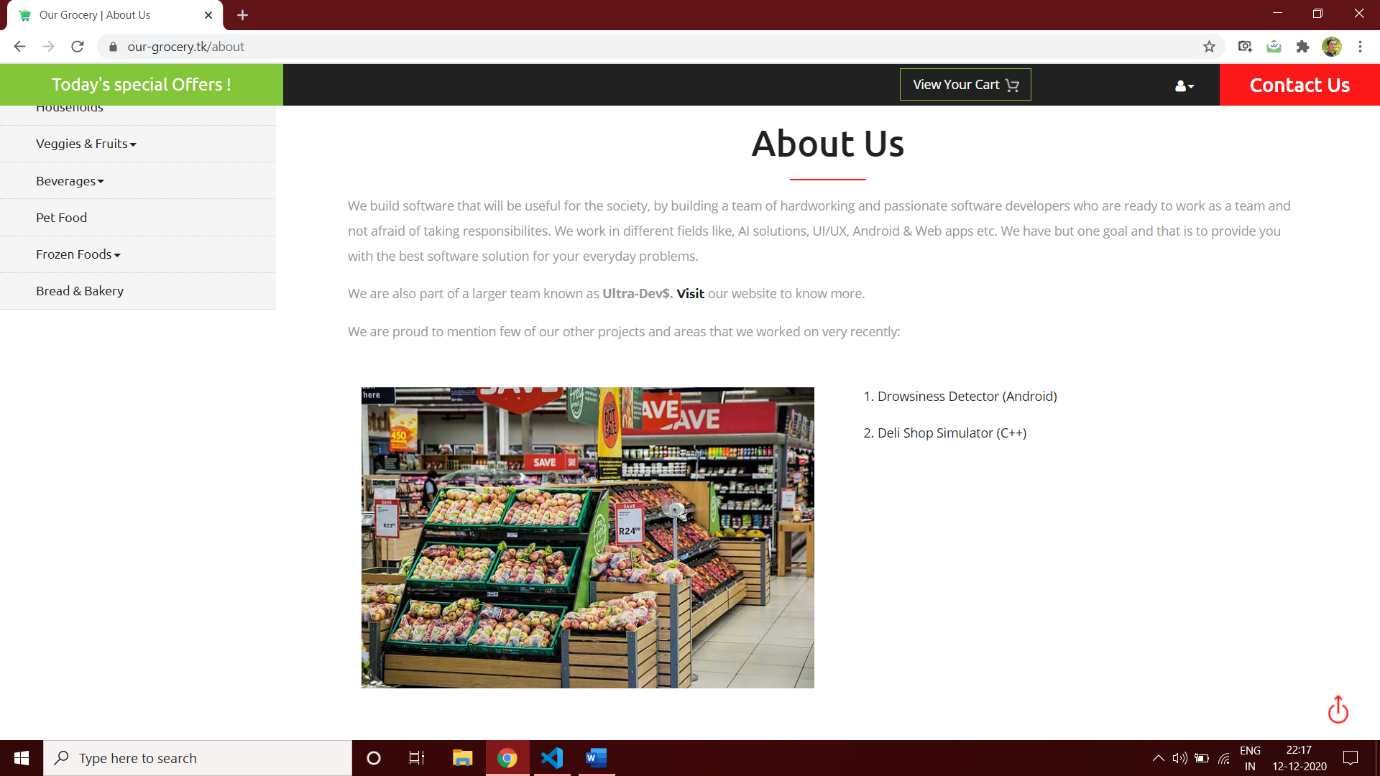


Fig (13a): About Us page

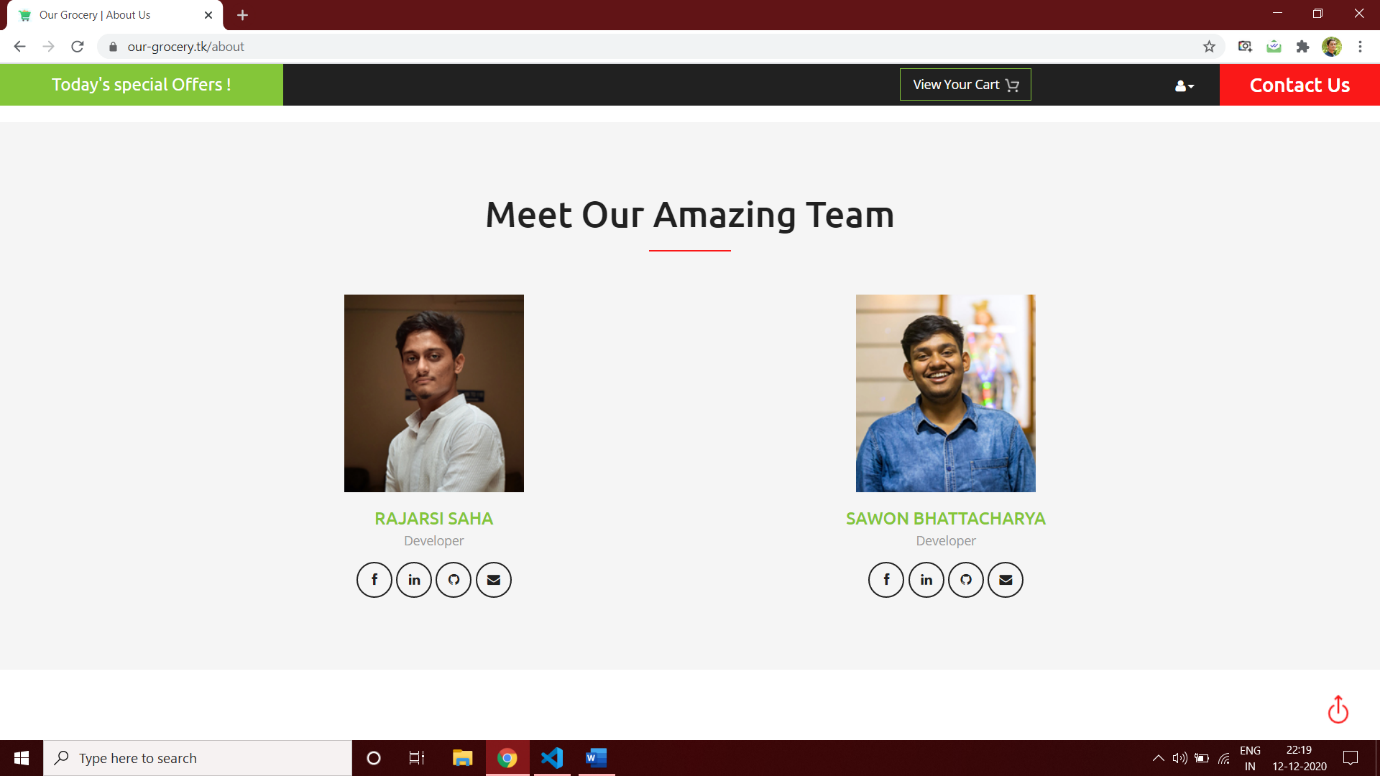


Fig (13b): About Us page

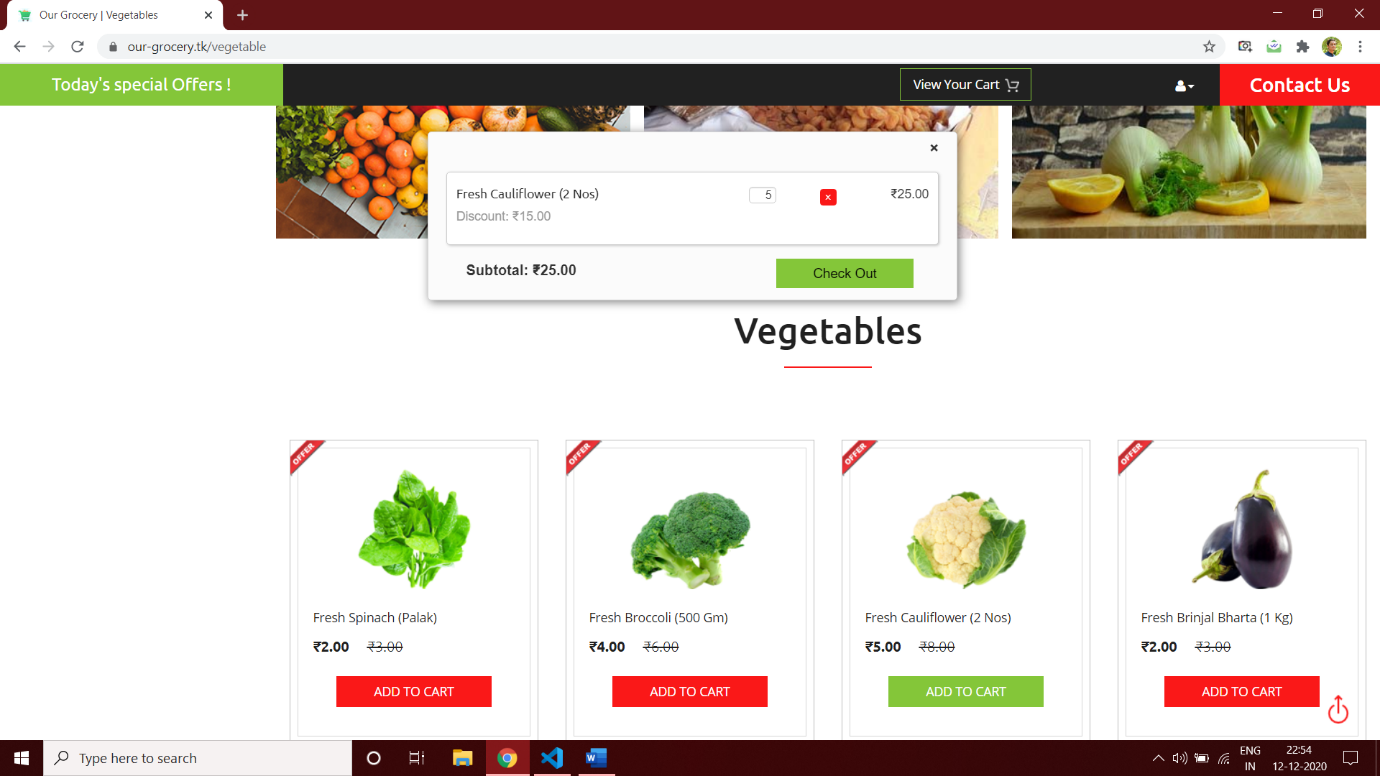


Fig (14): Buying Fresh Cauliflower (2 Nos) x 5 from Vegetables page

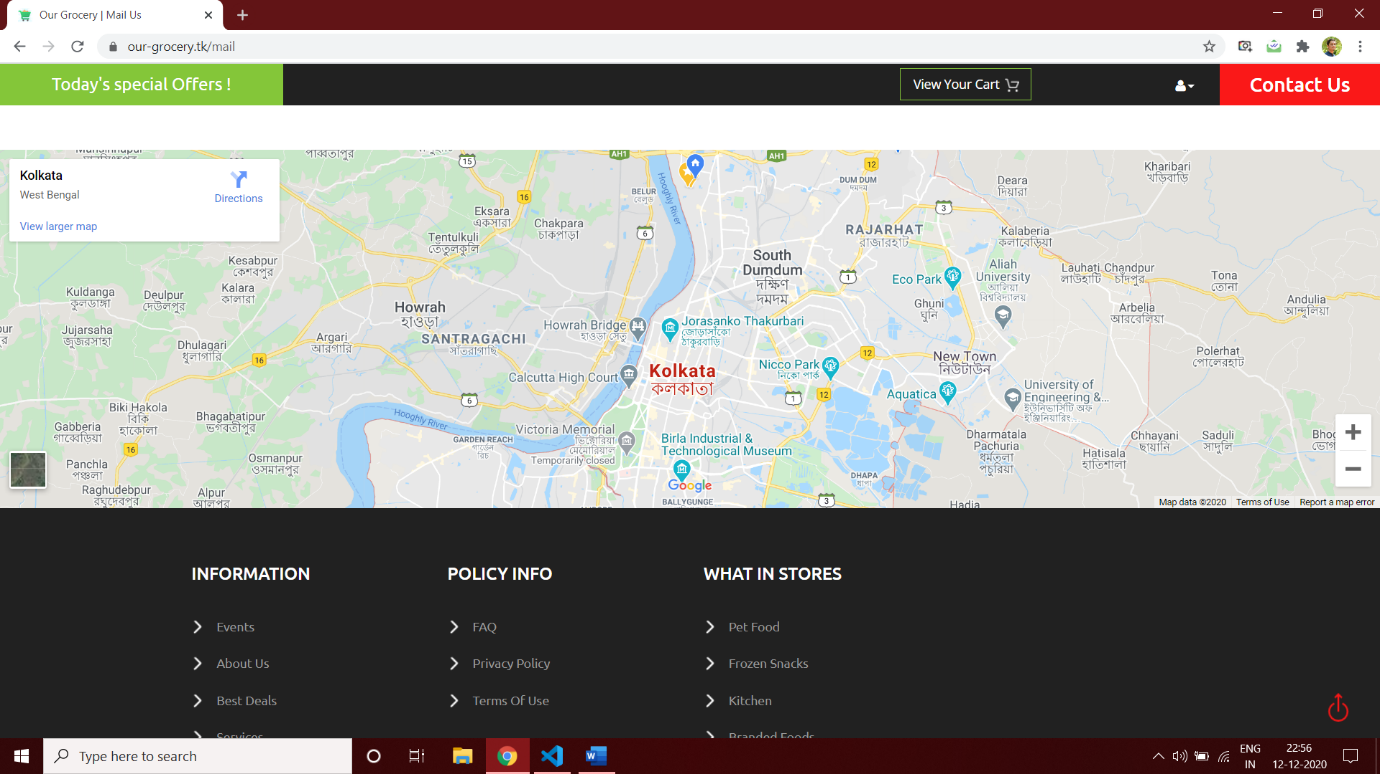


Fig (15): Browsing through the in-page Google Map in the Mail page

|  |  |
| --- | --- |
| Fig (14): Mobile View of home page | Fig (15): Mobile View of footer area of every page |
| Fig (16): Mobile View of testimonials in about page | |