

# **FINAL INDIVIDUAL PROJECT REPORT**

*DIPLOMA IN WEB ENGINEERING*

**CONSTRUCTION COMPANY**

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**BHANUKA GAMAGE**

**COL/A-054810**

**Batch 82**

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## A. INTRODUCTION

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This is a website intended for Mr. Saman Gamage, for his construction company **“Saman Gamage Construction Pvt.Ltd”**. He is a civil engineer who has won many worldwide awards, including the best house in Sri Lanka twice in 2007 and 2016.

He wanted a website where his clients can constantly check the current progress of their houses and also for new clients to effortlessly send inquiries. He also wanted the interface simple and elegant so that anyone can understand and use the webpage.

## B. FUNCTIONALITY OF THE WEBSITE

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- Elegant and simple homepage
- Detailed About us page
- Completed and On-Going Projects page
- Login/Logout for both the admin and clients
- Anyone interested can send enquiries through the website
- Admin should be able to:
  - Add new projects and clients to the website
  - Update projects
  - Upload a cover photo of the project
  - Change the state of the current project from “ongoing” to “completed”
  - Change the progress of the project
  - Upload recent images of the project
- Client should be able to:
  - Check the current progress of his project
  - View recent images of his project
  - Check the end date of his project

# C. INTERFACES OF THE WEBSITE

## 1. Interface for non-stakeholder of the website

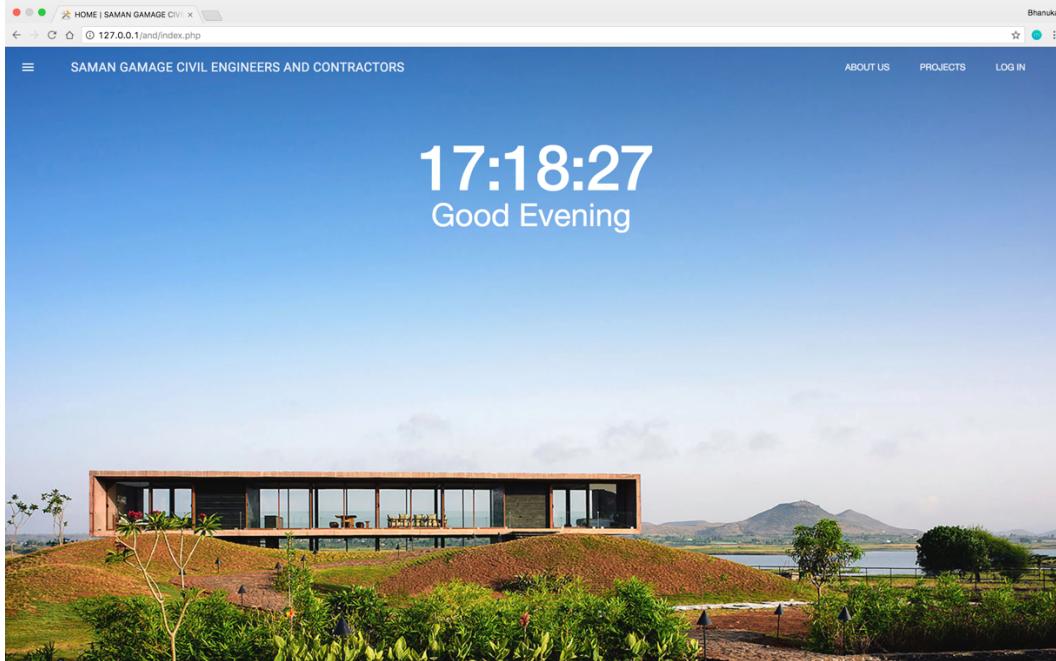


Figure C.1.1 - Home Page

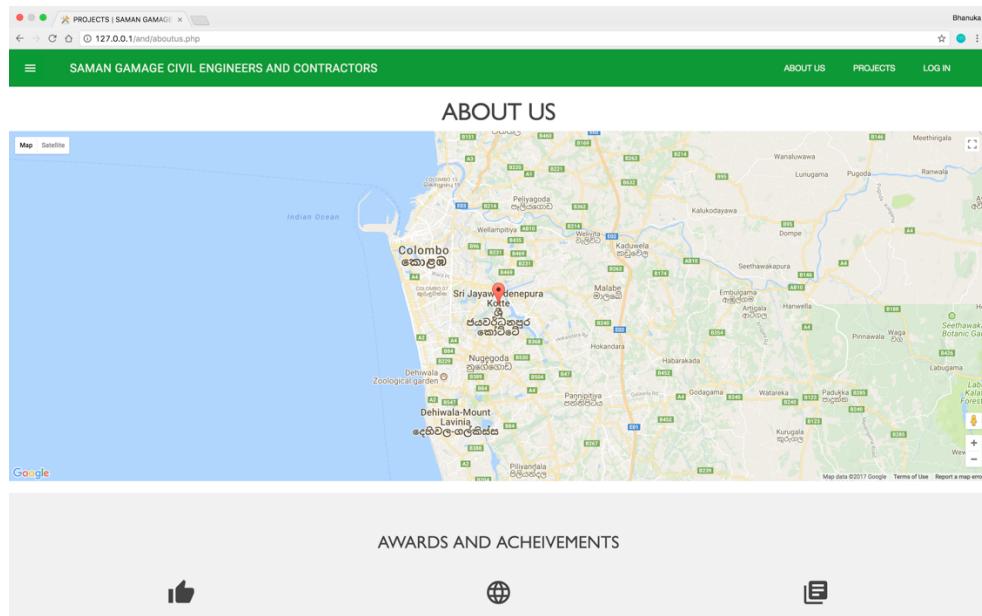


Figure C.1.2 – About Us Page I

**Our Vision**

Be Sri Lanka's premier engineering, construction, and project management organization by achieving extraordinary results for our customers, building satisfying careers for our people, and earning a fair return on the value we deliver.

**Our Mission**

Our mission is to provide builder services that surpass our Clients' expectations. We will accomplish this through the selective use of responsible subcontractors, by hiring and retaining first class employees, and by approaching the building process with honesty and integrity. This will provide the foundation for long term customer relations and growth. We are committed to the success of our Clients, our business partners, and our employees.

**CONTACT US**

Contact us and we'll get back to you within 24 hours.

📍 15/1, Samudradevi Road, Ethul Kotte, LK  
☎ +94 777323082  
✉ samanbgamage@gmail.com

Name  Email   
Comment   
Send

*Figure C.1.3 – About Us Page II*

**Completed**

GHR

On varian natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Lorem ipsum dolor sit amet, consectetur adipicing elit. Ut sodales iaculis arcu ac imperdiet. Etiam elementum vehicula semper. Nulla pulvinar turpis nec gravida tempus. In congue interdum nunc efficitur consequat. Vivamus at mauris eu metus finibus mattis nec id justo. Aenean dignissim tempus sapien, nec feugiat neque sodales a. Vivamus at dictum velit, eget pharetra felis. Quisque lacus justo, lacinia vel cu

[VIEW MORE](#)

**On Going**

NSR

*Figure C.1.4 – Projects Page*

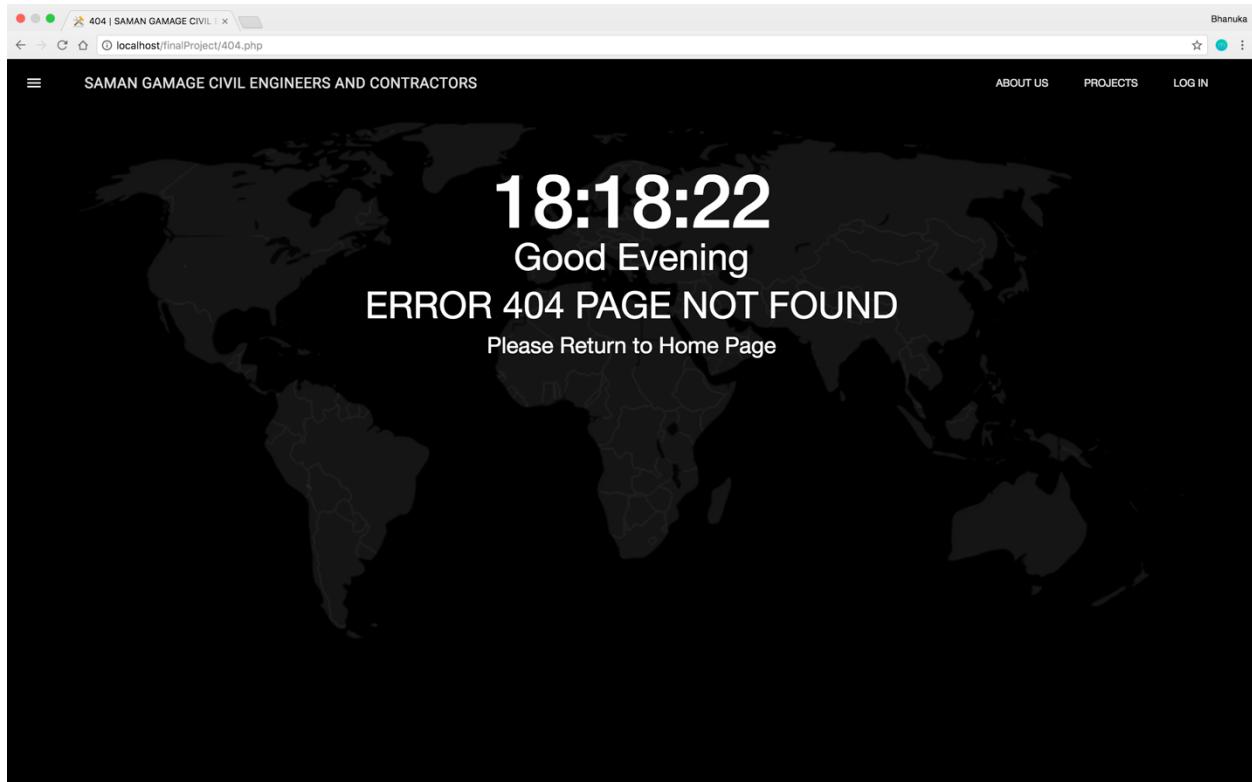


Figure C.1.5 – 404 Page

## 2. Interface for Admin

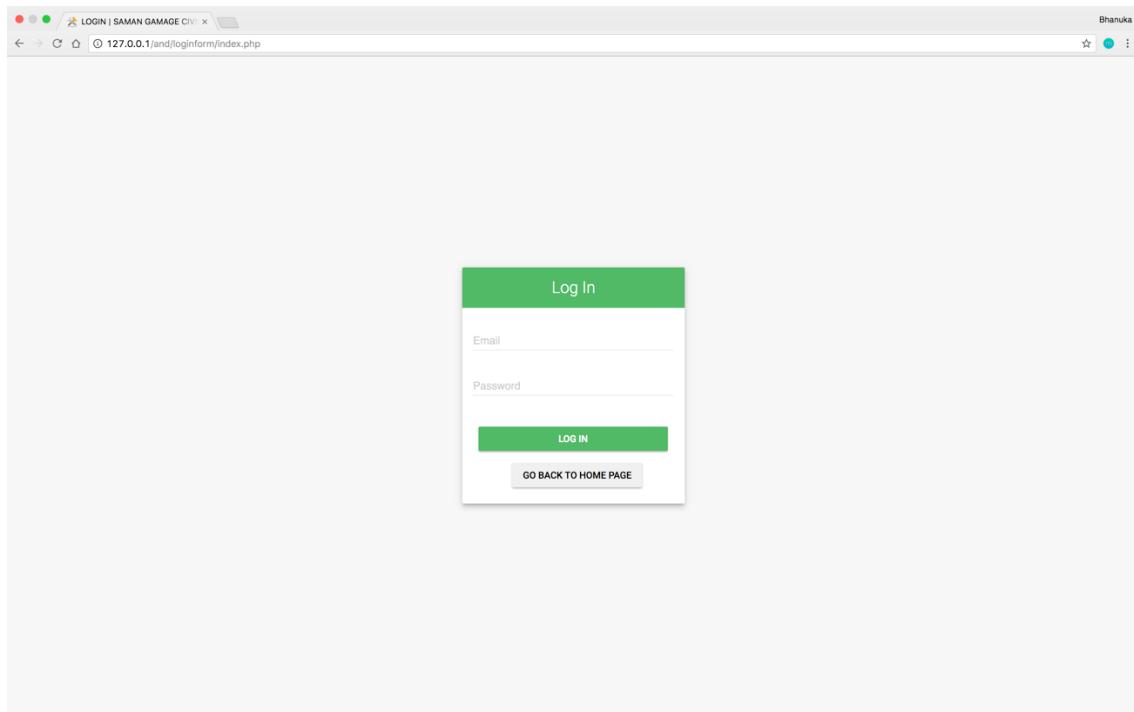


Figure C.2.1 – Login Page

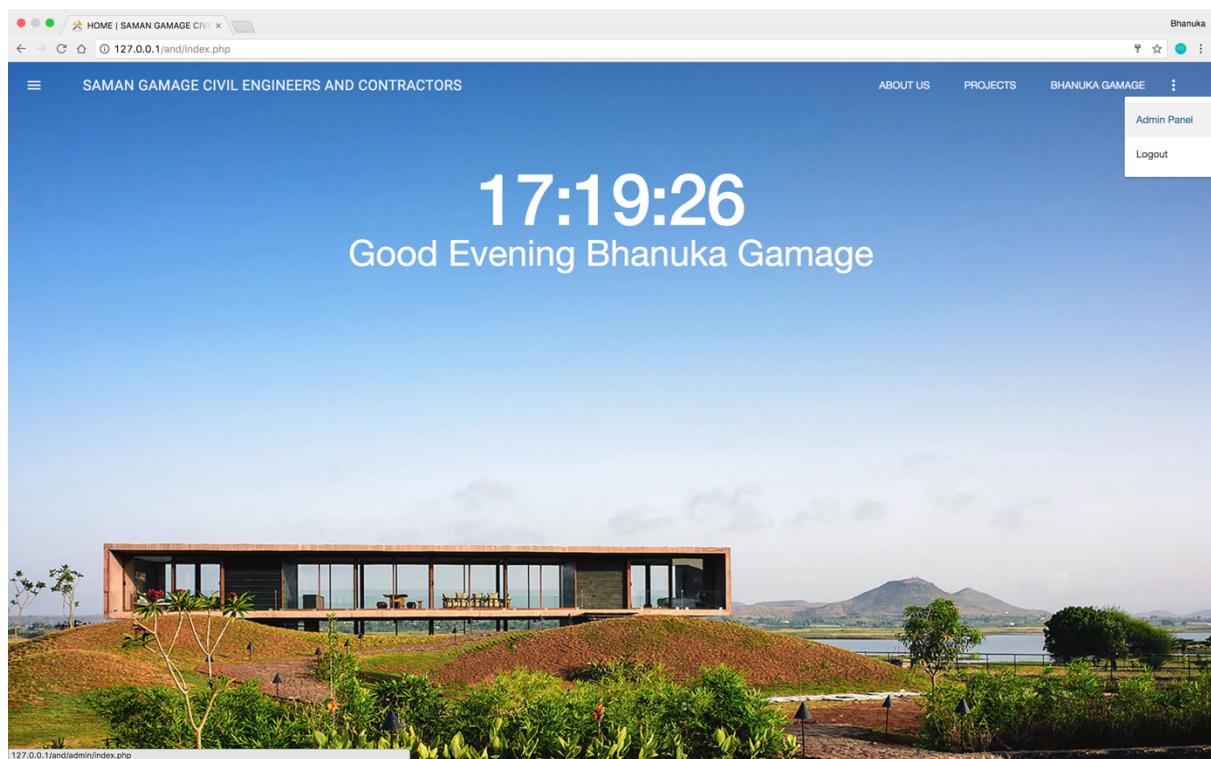


Figure C.2.2 – Admin Home Page

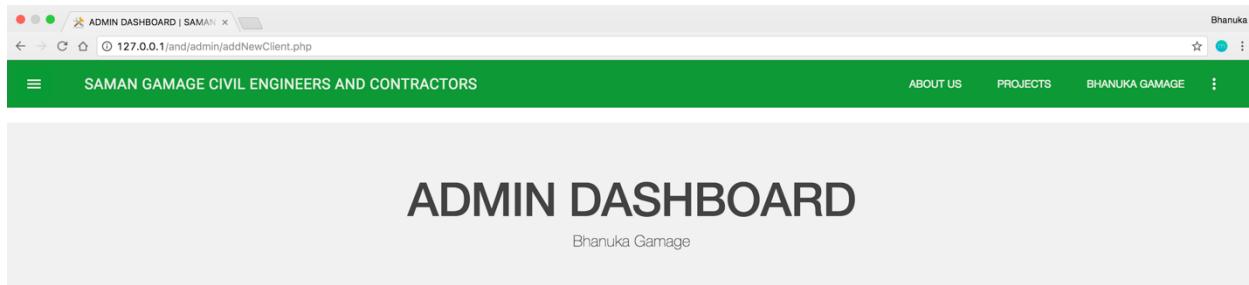


Name	Email	Message	Time
Peter Silva	petersilva@gmail.com	Hi, I would like to renovate my house. Can i know the necessary procedures. Thank You	2017-08-19 12:39:52.000000
John Green	johngreen@gmail.com	Hi, I would like to build my house. Can i get your service for this? Thank You	2017-08-19 11:45:03.000000
Wayne White	waynewhite@gmail.com	Hi, I want to build my house. Can i know the procedure I need to follow. Thanks Wayne	2017-08-19 04:42:14.000000

### Web Inquiry

Name	Email	Message	Time
Peter Silva	petersilva@gmail.com	Hi, I would like to renovate my house. Can i know the necessary procedures. Thank You	2017-08-19 12:39:52.000000
John Green	johngreen@gmail.com	Hi, I would like to build my house. Can i get your service for this? Thank You	2017-08-19 11:45:03.000000
Wayne White	waynewhite@gmail.com	Hi, I want to build my house. Can i know the procedure I need to follow. Thanks Wayne	2017-08-19 04:42:14.000000

Figure C.2.3 – Admin Dashboard



Client Information

Client Name:	Dervin Gomez
Client Address:	No.10, Temple Street, Kalubowila
Client Email:	dervingomez@gmail.com
Client Password:	...

Enter Project Details

Figure C.2.4 – Add Client Information

**Project Client ID:** 37

**Project Client Name:** Dervin Gomez

### Project Information

**Project Name:** PROPOSED RESIDENCE FOR DERVIN GOMEZ

**Project Short Name:** DGR

**Project Type:** House

**Project Address:** No.12, Flower Road, Nawinna, Maharagama

**Project Short Description:** Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla tellus est, dictum ut consectetur a, bibendum eget est. Pellentesque lacinia suscipit u

**Project Long Description:** Sed mollis id massa in sodales. Cras eleifend orci ante, efficitur convallis sem sollicitudin ut. Donec nibh nibh, tincidunt ac vehicula non, tincidunt q

*Figure C.2.5 – Add Project Details Page*

**Client Name:** Shaquille Perera

**Client Address:** No.69, Ward Avenue, Colombo 12

**Client Email:** shaquilleperera@gmail.com

**Client Password:** ...

### Project Information

**Project Name:** PROPOSED RESIDENCE FOR SHAQUILLE PERERA

**Project Short Name:** SPR

**Project Type:** House

*Figure C.2.6 – Update Client or Project Information*

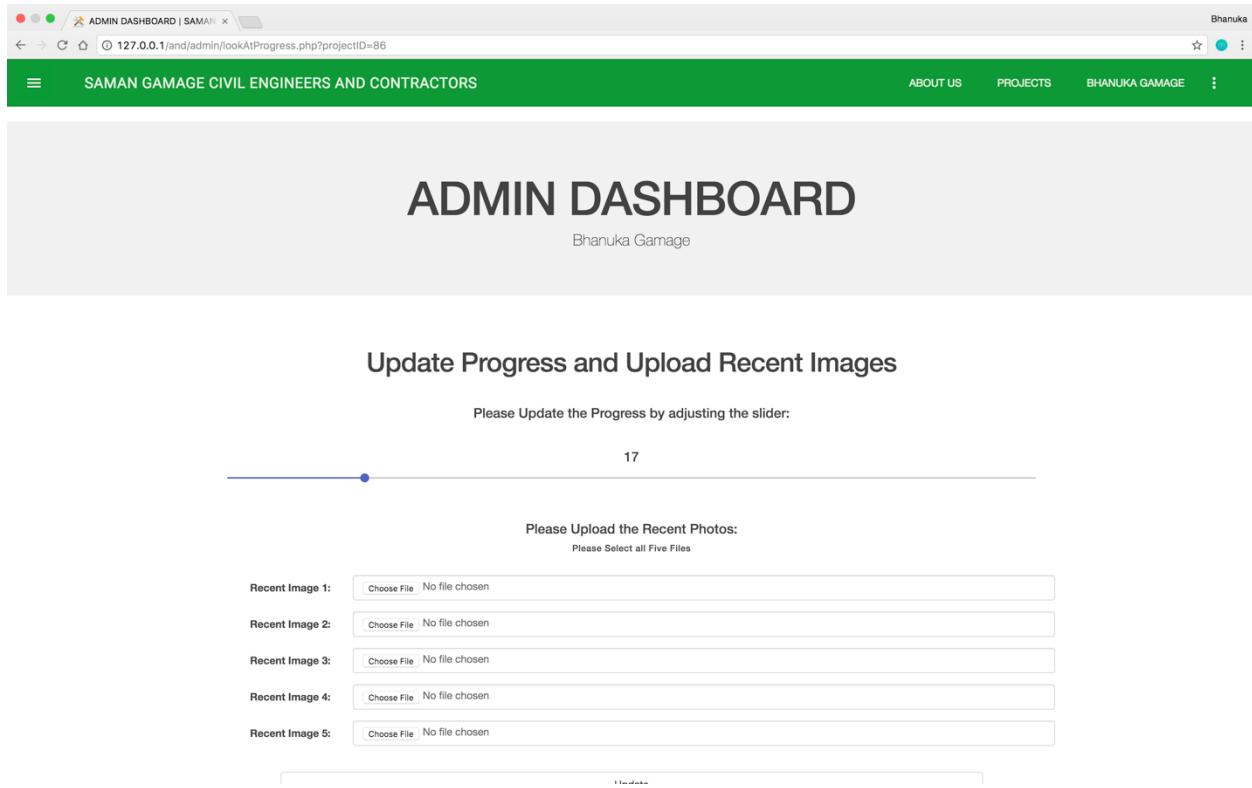
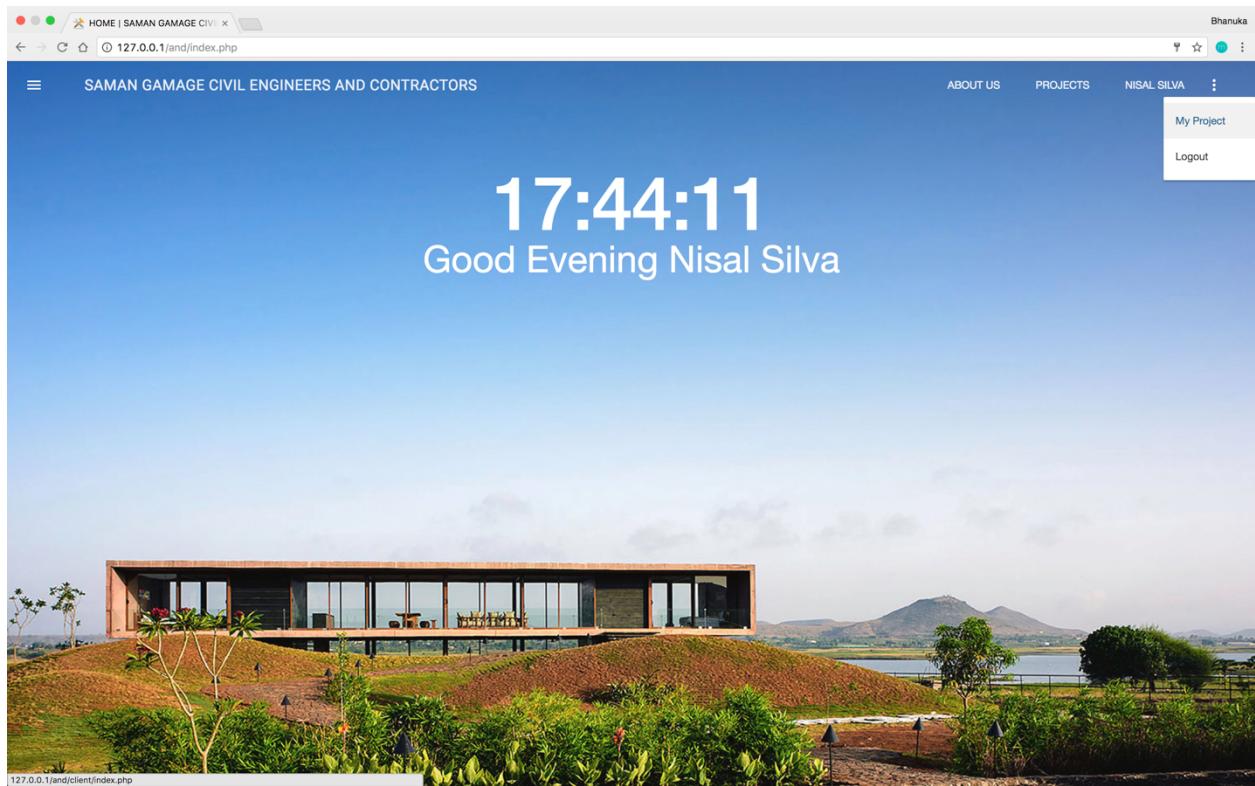


Figure C.2.7 – Update Progress and Upload Recent Images Page

### *3. Clients' Interfaces*



*Figure C.3.1 – Client Home Page*

MY PROJECT | SAMAN GAMAGE CIVIL ENGINEERS AND CONTRACTORS

Bhanuka

ABOUT US PROJECTS NISAL SILVA

# PROPOSED RESIDENCE FOR NISAL SILVA

No.32, Sea Road, Colombo 5

## Progress Bar



Project Short Name	NSR
Project Start Date	2017-08-20
Estimated Project End Date	2017-12-24

## Description

Mauris mollis diam id nisl bibendum lobortis. Donec egestas finibus placerat. Donec cursus erat malesuada velit accumsan suscipit. Donec a euismod erat. Duis rutrum lobortis sapien, non vestibulum enim feugiat sit amet. Nullam eu purus tempus lacus congue tempus. Curabitur sit amet mauris dictum, faucibus sem vel, condimentum augue. Morbi tempus, odio non scelerisque convallis, diam est pellentesque nulla, eget dapibus sem tortor et sem. Praesent pulvinar, augue id imperdiet viverra, enim dolor ultrices sapien, sed euismod nibh elit nec nisl. Aenean vitae tincidunt purus. Vestibulum non ligula eget est egestas tristique. Ut malesuada lacinia nisi, vel condimentum nulla egestas in. Nunc tempor arcu aliquam, tincidunt augue ut, rhoncus odio. Sed vitae vulputate leo, non sodales eros. Vestibulum ac metus gravida, facilisis tellus non, porta purus. In molestie nulla et nisi scelerisque mattis. Vestibulum justo diam, rutrum et felis eu, condimentum posuere diam. Sed tincidunt cursus eros, quis ultrices sem euismod ac. Integer varius facilisis massa et dictum. Donec eleifend dapibus tellus, vitae congue nunc vehicula at. Nullam lobortis augue at tincidunt condimentum. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Quisque imperdiet felis eu sapien finibus convallis. Donec placerat eros nisl, id elementum purus suscipit eu. Proin ac risus efficitur, ultrices nulla et, mattis urna. Sed non nisl et dolor placerat ultricies. Ut vehicula nibh i

## Recent Images

Figure C.3.2 – Client Dashboard I

MY PROJECT | SAMAN GAMAGE CIVIL ENGINEERS AND CONTRACTORS

Bhanuka

ABOUT US PROJECTS NISAL SILVA

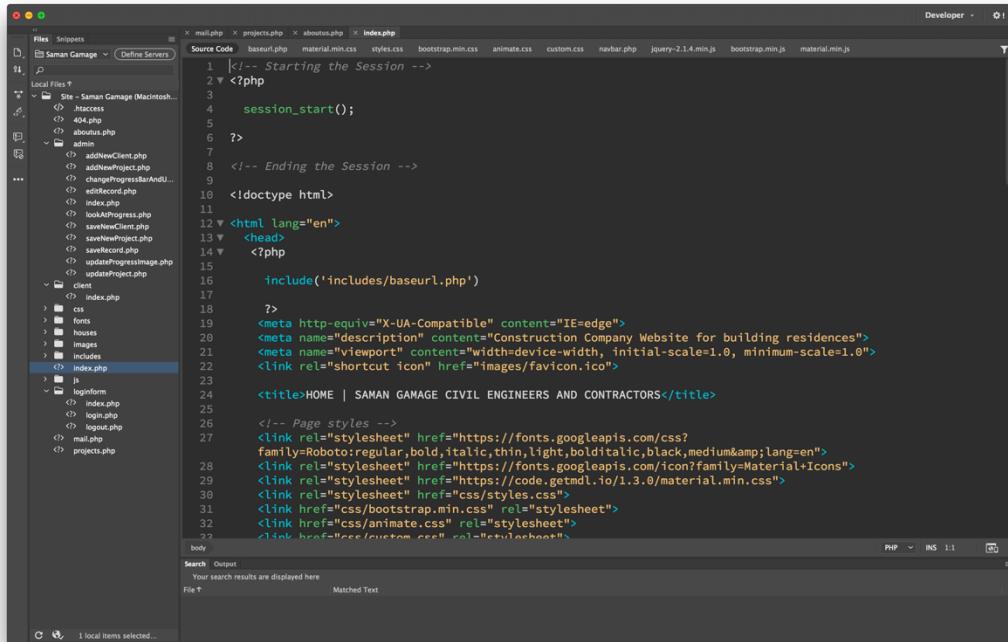
Mauris mollis diam id nisl bibendum lobortis. Donec egestas finibus placerat. Donec cursus erat malesuada velit accumsan suscipit. Donec a euismod erat. Duis rutrum lobortis sapien, non vestibulum enim feugiat sit amet. Nullam eu purus tempus lacus congue tempus. Curabitur sit amet mauris dictum, faucibus sem vel, condimentum augue. Morbi tempus, odio non scelerisque convallis, diam est pellentesque nulla, eget dapibus sem tortor et sem. Praesent pulvinar, augue id imperdiet viverra, enim dolor ultrices sapien, sed euismod nibh elit nec nisl. Aenean vitae tincidunt purus. Vestibulum non ligula eget est egestas tristique. Ut malesuada lacinia nisi, vel condimentum nulla egestas in. Nunc tempor arcu aliquam, tincidunt augue ut, rhoncus odio. Sed vitae vulputate leo, non sodales eros. Vestibulum ac metus gravida, facilisis tellus non, porta purus. In molestie nulla et nisi scelerisque mattis. Vestibulum justo diam, rutrum et felis eu, condimentum posuere diam. Sed tincidunt cursus eros, quis ultrices sem euismod ac. Integer varius facilisis massa et dictum. Donec eleifend dapibus tellus, vitae congue nunc vehicula at. Nullam lobortis augue at tincidunt condimentum. Orci varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Quisque imperdiet felis eu sapien finibus convallis. Donec placerat eros nisl, id elementum purus suscipit eu. Proin ac risus efficitur, ultrices nulla et, mattis urna. Sed non nisl et dolor placerat ultricies. Ut vehicula nibh i

## Recent Images



Figure C.3.3 – Client Dashboard II

## D. SAMPLE CODES



The screenshot shows a code editor interface with the file 'index.php' open. The code is a standard PHP header with meta tags and CSS links. It includes conditional logic for session handling and page styles based on the user's browser and session variables.

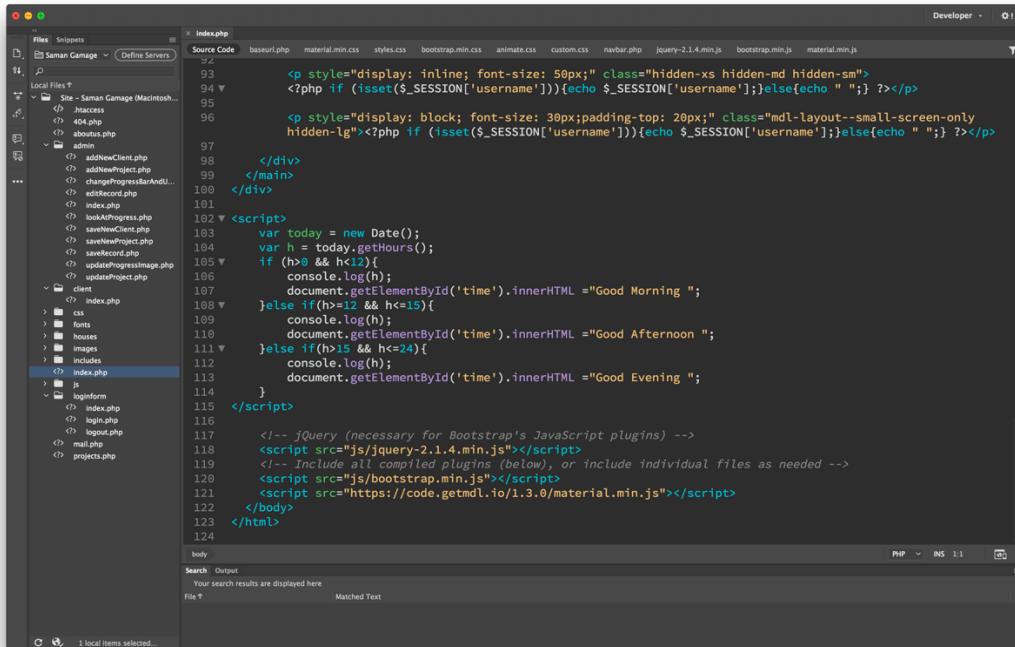
```
<?php
    // Starting the Session
    session_start();
    // Ending the Session
</?php

<!doctype html>
<html lang="en">
    <head>
        <?php
            include('includes/baseurl.php');

        ?>
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="description" content="Construction Company Website for building residences">
        <meta name="viewport" content="width=device-width, initial-scale=1.0, minimum-scale=1.0">
        <link rel="shortcut icon" href="images/favicon.ico">

        <title>HOME | SAMAN GAMAGE CIVIL ENGINEERS AND CONTRACTORS</title>
    </head>
    <!-- Page styles -->
    <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto:regular,bold,italic,thin,light,black,medium&lang=en">
    <link rel="stylesheet" href="https://fonts.googleapis.com/icon?family=Material+Icons">
    <link rel="stylesheet" href="https://code.getmdl.io/1.3.0/material.min.css">
    <link rel="stylesheet" href="css/styles.css">
    <link href="css/bootstrap.min.css" rel="stylesheet">
    <link href="css/animate.css" rel="stylesheet">
    <link href="css/custom.css" rel="stylesheet">
</body>
```

Figure D.1 – Header Code



The screenshot shows a code editor interface with the file 'index.php' open. This version of the header includes dynamic content generation for the current time of day (Good Morning, Afternoon, Evening) and includes external JavaScript files for Bootstrap's JavaScript plugins.

```
<?php
    if (isset($_SESSION['username'])) {echo $_SESSION['username'];} else {echo " ";}
    if (isset($_SESSION['username'])) {echo $_SESSION['username'];} else {echo " ";}
</?php

<script>
    var today = new Date();
    var h = today.getHours();
    if (h >= 12 & h < 12) {
        document.getElementById('time').innerHTML = "Good Morning ";
    } else if (h >= 12 & h <= 15) {
        document.getElementById('time').innerHTML = "Good Afternoon ";
    } else if (h >= 15 & h <= 24) {
        document.getElementById('time').innerHTML = "Good Evening ";
    }
</script>

<!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
<script src="js/jquery-2.1.4.min.js"></script>
<!-- Include all compiled plugins (below), or include individual files as needed -->
<script src="js/bootstrap.min.js"></script>
<script src="https://code.getmdl.io/1.3.0/material.min.js"></script>
```

Figure D.2 – Header Code

The screenshot shows a code editor window with the following details:

- Title Bar:** Developer
- File List:** Shows a local file tree for a project named "Saman Gamage".
- Code Editor:** Displays PHP code for an alert bar. The code includes conditional logic for different success messages based on GET parameters (\$\_GET['success'] and \$\_GET['type']). It uses Bootstrap's alert classes to display messages like "Well done!" and "You successfully added a new client and project." or "You successfully updated the project progress and pictures.".
- Status Bar:** Shows "PHP" and "INS 1:1".
- Bottom Bar:** Shows "Search Output" and "File ↑ Matched Text".

Figure D.3 – Alert Bar

The screenshot shows a code editor window with the following details:

- Title Bar:** Developer
- File List:** Shows a local file tree for a project named "Saman Gamage".
- Code Editor:** Displays PHP code for the client's index page. The code includes logic to fetch project data from a database using MySQLi queries. It initializes arrays for project details and recent images, then loops through the results to build the page content.
- Status Bar:** Shows "PHP" and "INS 1:1".
- Bottom Bar:** Shows "Search Output" and "File ↑ Matched Text".

Figure D.4 – PHP Code for the Client's Index page

The screenshot shows a developer's workspace with a file browser on the left and a code editor on the right. The file browser displays a project structure under 'Site - Saman Gamage (Macintosh...)'. The code editor window has tabs for 'index.php' and 'mail.php'. The 'mail.php' tab is active, showing PHP code for sending emails. The code includes headers, database connection setup, and logic for handling comments and dates. It also contains a section for testing, commented out with // This part is under testing and will be implemented in the final product. The code ends with an if(\$result) block for echoing success or failure messages.

```
15 $headers = "MIME-Version: 1.0" . "\r\n";
16 $headers .= "Content-type:text/html; charset=UTF-8" . "\r\n";
17 $headers .= "From: $email" . "\r\n";
18
19
20
21
22 $dbmsg = $_POST["comments"];
23 $dateAndTime = date("Y-m-d")." ".date("h:i:s");
24
25
26 include("includes/dbConfig.php");
27 $sql="INSERT INTO
28 mail(mainName,mailEmail,mailMessage,mailTime)VALUES('$name','$email','$dbmsg','$dateAndTime')";
29 $result=mysqli_query($conn,$sql) or die(mysqli_error());
30 /*
31 // This part is under testing and will be implemented in the final product
32 if(mail("samanbgamage@gmail.com","Website Inquiry",$dbmsg,$headers)){
33 echo "<script>window.location='aboutus.php?type=sucess'</script>";
34 }else{
35 echo "<script>window.location='aboutus.php?type=fail'</script>";
36 }
37
38
39 ?>
40 */
41 if($result){
42 echo "<script>window.location='aboutus.php?type=sucess'</script>";
43 }else{
44 echo "<script>window.location='aboutus.php?type=fail'</script>";
45 }
46 }
```

Figure D.5 – PHP Code for the inquiries and mail

## E. SOURCES USED

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- Bootstrap
  - <http://getbootstrap.com/>
- JQuery
  - <https://jquery.com/>
- Material Design Lite
  - <https://getmdl.io/started/>
- Animate.css
  - <https://daneden.github.io/animate.css/>
- W3Schools
  - <https://www.w3schools.com/html/>
- Google Maps API
  - <https://developers.google.com/maps/>
- MDN Web Docs
  - <https://developer.mozilla.org/son/docs/Tools>

## F. HOW TO SET IT UP?

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### 1. Steps to Follow

- a. Copy the finalProject folder to the root directory of the server
- b. Change the includes/baseurl.php to the correct root
- c. Change the .htaccess file to the root (root/finalProject/404.php)
- d. In phpMyAdmin create a database called “**saman**”
- e. Import the “**saman.sql**” database to the phpMyAdmin MySQL database
- f. Check for internet connection (**INTERNET ACCESS IS REQUIRED**)
- g. Finally open the webpage

**\*\*\*If any database configuration is required, you can change the (includes/dbConfig.php) file**

### 2. Usernames and Passwords for functionality check

Username	Password	Role
<a href="mailto:bhanukamgamage@gmail.com">bhanukamgamage@gmail.com</a>	0000	Admin
<a href="mailto:georgehall@gmail.com">georgehall@gmail.com</a>	123	Client
<a href="mailto:nisalsilva@gmail.com">nisalsilva@gmail.com</a>	123	Client
<a href="mailto:shaquilleperera@gmail.com">shaquilleperera@gmail.com</a>	123	Client
<a href="mailto:dervingomez@gmail.com">dervingomez@gmail.com</a>	123	Client

## **G. FUTURE IMPROVEMENTS TO THE WEBSITE**

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- The Google Map will show the locations of the projects and have labels of the name of the project.
- The client will be able to send emails directly from the Client Dashboard
- Admin will be able to upload more than five images
- About Us page will be more informative (Client did not supply any private information for the project)
- Adding cash flows and generating cash receipts directly from the Admin panel
- The projects page will be able to forward to more details about the project (Date Started, Final Cost etc.)
- Adding WOW.JS to integrate animations when scrolling
- Improve Security with encryptions

## H. CONCLUSION

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The client is happy for the amount of progress of the website, but to implement cash flows and cash receipts we need to improve the security of the website. After adding all the data of the previous site we hope to publish it by the end of this year after thoroughly testing and implementing this. We hope to use a Parallel implementation so that the clients will have reference without completely switching it.

I would also like to Thank Mr. Saman Gamage for allowing me to use his website for my project and I hope this project met all the requirements needed for the DiWE Final Project.

# I. REFERENCES

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These are the references to the images I have used as dummy images in the database

1. <https://cdn0.iconfinder.com/data/icons/user-pictures/100/matureman1-512.png>,
2. [http://images.adsttc.com/media/images/55dd/0e7a/e58e/ce13/bd00/00b4/large\\_jpg/portada\\_4.jpg?1440550507](http://images.adsttc.com/media/images/55dd/0e7a/e58e/ce13/bd00/00b4/large_jpg/portada_4.jpg?1440550507)
3. <https://vignette2.wikia.nocookie.net/toontownrewritten/images/1/1c/Construction.ico/revision/latest?cb=20140928215922>
4. [https://www.gbstudioagency.com/wp-content/uploads/2014/05/GBstudioAgency\\_Background.jpg](https://www.gbstudioagency.com/wp-content/uploads/2014/05/GBstudioAgency_Background.jpg)
5. <http://startrekmeshes.com/wp-content/uploads/2016/06/Free-Stunning-House-Architecture-For-Saving-Space-In-France-Facade-Architect-Houses-With-Architecture-Houses.jpg>
6. <https://www.google.lk/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjwqo24tePVAhUMwl8KHQNIA1UQjRwlBw&url=https%3A%2F%2Fwww.domain.com.au%2Fadvice%2Faustralias-ten-best-houses-of-2016-amazing-design-and-architectural-ingenuity-20161124-gsuvhy%2F&psig=AFQjCNHZqD5IGQQjCzFPKb9ZIHFuALvQHQ&ust=1503236185469029>
7. <http://startrekmeshes.com/wp-content/uploads/2016/06/Cool-Best-Architecture-Design-House-On-Architecture-Houses.jpg>
8. [http://www.idesignarch.com/wp-content/uploads/Modern-Luxury-Home-Johannesburg\\_2.jpg](http://www.idesignarch.com/wp-content/uploads/Modern-Luxury-Home-Johannesburg_2.jpg)
9. [http://happytobeachhome.net/wp-content/uploads/2011/02/house\\_buy.jpg](http://happytobeachhome.net/wp-content/uploads/2011/02/house_buy.jpg)
10. <http://chivalryph.com/wp-content/uploads/2015/05/sample.1.jpg>
11. [http://sabalacarpenter.com/wp-content/uploads/sabala-crapenter-houses\\_under-construction.jpg](http://sabalacarpenter.com/wp-content/uploads/sabala-crapenter-houses_under-construction.jpg)
12. <http://blog.capterra.com/wp-content/uploads/2014/12/831260-3x2-940x627.jpg>