JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

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WEB TECHNOLOGIES

WEBSITE DOCUMENTATION

Assignment Submission

By

Kelvin Mwangi Gathii

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To

Dr. Henry Mwangi, Ph.D

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KELVIN MWANGI GATHII

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WEBSITE DOCUMENTATION

Task

KenyaWeb Technologies has landed a new contract to develop a website for School of Computing and Information Technology. The lead developer has divided the project so that the company can deliver the completed project in 5 working days. As an employee of KenyaWeb, you have been assigned to work on the following five pages: *Home Page*, *Academics*, *Payment methods*, *Programmes*, *Login*, *Staff*, *Apply now*

Introduction

The above task has been accomplished by developing a website with information about the school and an administrator's dashboard to manage the content (CMS). The website is meant for the public, thus the link will be publicly shared, while the admin dashboard will be password-protect and hidden so it's only accessible to administrators.

The links to the front-end website is: https://8to5systems.co.ke/web-technologies

The link to the admin dashboard is: https://8to5systems.co.ke/web-technologies/admin/

Login credentials are as follows: Username: *admin* and Password: *admin*

Development

The following languages/ frameworks were used to develop the above system

S/n	Language	Purpose
1.	HTML	Hypertext Markup Language, Defines the structure of web pages. It uses tags such as <head> </head>
2.	CSS	Cascading Style Sheet Handles the styling of web elements in matters size, font, colour, spacing etc

3.	JavaScript	Is a client based language that runs on the browser and is used to edit HTML elements without having to send a request to the server.
4.	Bootstrap	Is a free open-source framework that is built on HTML, CSS, and JavaScript to facilitate the development of responsive, mobile-first website. It makes it easy to build user interfaces.
5.	PHP	Personal Home Pages but is also an acronym for Hypertext Preprocessor Is a server scripting language. It is lightweight and enables dynamic content on a website. In this project, it is used to communicate with the database.

How it Works

The front end reads from the database and displays it on the respective pages. The admin dashboard managed this data by determining what will be saved in the database.

The front end has the following pages carrying out the following purposes:

S/n	Page	Purpose
1.	Home	Gives an overview of the school by previewing items such as: Sliders, courses offered, news, contact info, message from Director
2.	About	Describes the school, provides answers to FAQs
3.	Academics	message from director, departments, courses offered
4.	Staff	Shows profile of staff, picture, name and designation
5.	Apply now	Offers an online form for someone to apply for a course
6.	Payments	Offers an online payment platform. Payment methods: Bank or Mpesa
7.	Contacts	Provides contact info and a map to the school
8.	Login	Provides a login page to the admin portal

Each of the above pages is controlled by a page in the dashboard page with a similar name.

Database Structure

The system uses MySQL Database. MySQL is an open-source relational database management system developed and maintained by Oracle. It is popular in web-based system. MySQL is queried using Structured Querying Language (SQL).

In this project. PHP is used as the interface between the UI and the database. As such, sample queries are as shown:

```
$sqlll = "UPDATE about_page SET message_from_director='$msg_director',
question_1='$q1', answer_1 ='$a1', question_2 = '$q2', answer_2='$a2',
question_3='$q3', answer_3='$a3' WHERE id='1'";
if (mysqli_query($conn, $sqlll)) {
    $success = "Updated successfully";
} else {
    $error = "An error occurred: " . mysqli_error($conn);
}
```

The above code is used to edit the FAQs section

The following database actions happen:

Create: Adds new data into the database

Read: Reads data from the database

Update: Edits data in the database

Delete: Delete/ remove data from a database

The database contains the following tables

S/n	Table	Role played	Columns
1.	About_page	Holds data on message from director Holds Questions and answers for FAQs	id message_from_director question_1 answer_1 question_2 answer_2

			question_3 answer_3
2.	admin	Hold login in data for website administrators	Id Name Pfno Email Admin_level Password Last_active Status
3.	Applications	Holds applicants data and the course they wish to apply for	Id Name Phone Email Course_applied Date_of_application Education_level National_id nationality
4.	Departments	Holds data on computing and IT departments	Id Computing it
5.	Logs	Hold logs. Every action is logged	Id User User_id Action Ip_source Datestamp Timestamp
6.	News	Holds news articles	Id Title description
7.	Payments	Hold mpesa/ bank payment data	Id Amount Account Date Platform Reference status
8.	Profile	Holds data about the wesite profile: i.e. school name	Id Company_name Company_nickname
9.	programmes	Holds data on various programmes offered by the school.	Id Programme_type Programme_name Programme_description status

10.	sliders	Holds data on the 3 website sliders	Id Slider_1_title Slider_1_description Slider_2_title Slider_2_description Slider_3_title Slider_3_description
11.	staff	Holds data on the staff teaching in the department	Id Name Title Description image

Hosting

The website is hosted remotely on a client – server model on a Linux server.

It is accessible via the url: https://8to5systems.co.ke/web-technologies/

Version Control and Code Sharing

This project has been shared on GitHub. It is accessible via link: https://github.com/bobmwangi/web-technologies

Structure of web pages

Web pages on the public website are basically UI skeletons that contain php code to fetch data from the database. They have the following basic structure.

```
<!DOCTYPE html>
<html lang="en">

<?php
//call the head tag
include 'head.php';
?>

<body>

<?php
//call the page header

include "header.php";
?>


<main id="main">
    <!-- =======Section ======= -->
    <section id="about" class="about">
        <div class="container">
            <div class="section-title">
                <h2>Page title</h2>
            </div>

            <div class="row content">
                    <p>//dynamic page content fetched from
database
                    </p>
            </div>
        </div>
    </section><!-- End of Section -->

</main><!-- End #main -->

<?php //footer
include "footer.php";
?>

</body>

</html>
```