جامعة أم القرى
UMM AL-QURA UNIVERSITY

LEARN POJECT

WEB ENGINEERING PROJECT

SAMAR AMER ASIRI 444000717
RANEEM ALQARNI 444002329
WADHUH SULIMAN ALTURGEMI 44400239
AISHA MAYUD ALSULAMI - 444002832

SUPERVISION OF THE DOCTOR OF THE COURSE:
ENAS BUGS

Section1: Project Specification

1.1 Summary of the website and its primary objectives:

The website for learning programming subjects at Umm Al-Qura University "**LEARN**" is an electronic platform specifically designed to support students and individuals wishing to learn programming languages at the College of Computers in Umm Al-Qura. It serves as a platform that offers a comprehensive range of programming lessons and knowledge of the majors in the College of Computing. The main objectives of the site revolve around providing a clear, comprehensive and easy-to-access platform for useful programming languages in the College of Computing, and facilitating access to the technical interface at Umm Al-Qura University.

Includes accessible programming resources: The site aims to provide students with easy access to a wide range of programming explanations, in addition to comprehensive knowledge of the specializations found in the College of Computers at Umm Al-Qura University. It offers video lessons and covers different programming languages, concepts, and techniques.

Also, Timely Updates and Relevance: The site aims to stay up to date with the evolving field of programming. It is updated regularly to incorporate the latest programming languages.

1.2 Primary Audience for the Website:

The primary audience for learning programming languages at Umm Al-Qura University is university students enrolled in programming courses or seeking degrees in computer science, software engineering, or related fields. The site is also free and available to non-university students, and it is an educational site for everyone.

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1.3 Site Organization:

Our website consists of several pages, each of which serves a specific purpose and meets the diverse interests of our visitors. Let's take a closer look at the different pages and their functions:

pages and content:

1- Home page:

The home page serves as the main hub of our website, providing easy navigation to all other pages. It provides a brief overview of the site's content. Visitors can access any section of the website by clicking on the relevant links provided on the home page.

2- Specializations Page:

The Specializations page is dedicated to showcasing various specializations within the field of computer science and technology. It acts as a gateway to detailed information about each specialization. This page is linked to six other pages, where visitors can find explanatory videos about each specialization and explore the programming languages associated with them.

Human-Computer Interaction: This page focuses on the specialization of Human-Computer Interaction, exploring its principles and practices.

Cybersecurity: Here, visitors can delve into the discipline of cybersecurity, gaining insights into protecting computer systems and networks from digital threats.

Artificial Intelligence: This page delves into the exciting field of artificial intelligence, covering its fundamental concepts and programming topics.

Computer Science: Visitors can learn about the basics of computer science and its core programming languages on this page.

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- Software Engineering: This page provides insights into the discipline of software engineering, covering software development methodologies and best practices.
- Data Science: Here, visitors can explore the world of data science, gaining knowledge about data analysis and machine learning.

3- Acceptance Rates Page:

The acceptance rates page focuses on providing information about the acceptance rates at the College of Computer Science at Umm Al-Qura University. It offers transparency and helps prospective students understand the admission process. Additionally, this page is linked to two sub-pages:

a. Acceptance Rates for Male Students: This sub-page provides specific data on acceptance rates for male students at the College of Computer Science.

b. Acceptance Rates for Female Students: Similarly, this sub-page presents acceptance rate data specifically for female students at the College of Computer Science.

4. Registration Page:

The registration page allows visitors to register and create an account on our website. It collects necessary authorization and registration information. Additionally, the registration page is linked to the login page, allowing registered users to securely log in to their accounts and access personalized content.

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Artifacts found can include:

1. image: images have been added on the specialties page to describe each specialty.

2. Video: a video has been added for each discipline to explain the languages related to it.

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1.4

- We used many tools on the site, such as HTML, CSS, and Javascript.

- The CSS language has many benefits, including It allows specifying colors, fonts, size, spacing, arrangement, backgrounds, and other visual elements of the page.

- CSS can be used to add elegance and distinction to a website through multiple layouts and innovative designs.

- It allows visual aspects to be separated from the structure and basic content of the page.

- This allows flexibility and ease of modification to the site design without affecting the core content.

- CSS formatting can be changed without having to modify individual elements on the page.

- To create recurring patterns or definitions and reuse them on multiple elements on a page or on different web pages.

- This facilitates and speeds up the development process and provides easier maintenance of the website design.

- In addition to JavaScript to add interaction on the site was used in the form.

Section2: Website Organization

1 Why you organized your website the way you did

We made a welcome page for the user, added a button to register for ease of use, and added the four pages in Nav so that it would be easy for the user to access the page he wanted. We created a special page for each specialty that carries important information for the specialty itself, and collected them all in the specializations box for ease of use.

2 How information is placed on each page

Home Page: Welcome to the user and place a login button at the bottom of the page about the site and what it aims.
to do Specializations page:
Place 6 pictures representing each specialization and add a button to move the page dedicated to the specialization.
Rate page: Use two images representing the gender of the user and add a button to transfer to a page in which there is a table containing the lowest and highest rates for acceptance of all majors.
Registration page: using form and JavaScript to interact with the user.

3 How that affects the user experience

Positively, we avoided using any colors that are harmful to the eye and replaced them with colors that are comfortable for the eye. We added a picture to each button to help the user experience and also serve the group of people with disabilities because the pictures are linked to the buttons so that the screen reader can read the button. Also, adding pages in the navigation greatly helps the user experience as it helps Easy to navigate the site.

Section3: Testing

The site was tested by proposing it to people interested in the computer field

Section 4: Conclusion

Discuss what you learned while working on the project.

1. Teamwork: Group work allowed us to understand the dynamics of working as part of a team. we learned how to contribute our skills and expertise while respecting and valuing the contributions of the other group members. It helped us to appreciate the power of collective effort in achieving success.

2. Communication: Group work enhanced our communication skills. we learned how to express our thoughts clearly, actively listen to others, and ask relevant questions. Effective communication ensures that everyone is on the same page and working towards a shared understanding.

Regarding the fundamentals of web development, here are some things we learned from this course:

1. HTML: we learned the basics of Hypertext Markup Language (HTML), the standard language for creating web pages. This includes understanding the structure of HTML documents, using tags and attributes, and organizing content.

2. CSS: Cascading Style Sheets (CSS) are used to control the presentation and layout of web pages. A web development course teaches us how to use CSS to apply styles, customize colors, fonts, and layout, and make web pages visually appealing.

Section 4:Conclusion(continue)

Discuss what you learned while working on the project

Regarding the fundamentals of web development, here are some things we learned from this course:

3. JavaScript: JavaScript is a programming language that enables interactivity and dynamic content on web pages. we learned the fundamentals of JavaScript, including variables, data types, functions, and control structures. This will allow us to add behavior and functionality to web pages.

4. Responsive Design: With the increasing use of mobile devices, responsive design has become essential. we learned how to create web pages that adapt and respond to different screen sizes and devices, ensuring a consistent user experience across platforms.

5. Web Development Tools: A web development course often introduces you to various tools and technologies used in the industry. This may include code editors, version control systems (e.g., Git), development frameworks, and libraries. Familiarity with these tools can enhance our productivity and efficiency as web developers.

6. Web Accessibility: we learned about the importance of web accessibility and how to create websites that are inclusive and usable by people with disabilities. This involves understanding accessibility standards, applying best practices, and testing for accessibility compliance.

code

1. Navigation Bar:

```
<link href="https://fonts.googleapis.com/css2?family=IBM+Plex+Sans:ital,wght@1,700&family=Josefin+Sans:ital,wght@0,400;0,700;1,400;1,600;1,
<title>Home</title>

</head>
<body>
  <header>
    <nav>
    <div class="logo">
     <a src="#">Learn</a>
    </div>
      <ul>
       <li><a href="index.html">Home</a></li>
       <li><a href="Specialties.html">Specialties</a></li>
       <li><a href= "Acceptance rate.html"> Acceptance rate </a></li>
       <li><a href="Register with us.html">Register with us</a></li>
      </ul>
    </nav>
    </header>

<min>

<div class="context">
```

2. Centralized Forms:

```
    </ul>

</nav>
</header>
<main>
    <div class="Sign-Up">
        <h1>Sign Up</h1>

      <form method="post" action>

       <input type="text" name="First Name" id="First Name" required placeholder="First Name">
       <input type="text" name="Last Name " id="Last Name " required placeholder="Last Name">
       <input type="Email" name="Email" id="Email"  required placeholder="Email">
       <input type="password" name="password" id="password" maxlength="8" required placeholder="password">
       <input id="submit"   type="submit" value="Sign Up" onclick= "alert('Thank you for registering and we wish you a beautiful and fr

      </form>
  </div>
  </main>
<footer>
 <hr>
```

3. JavaScript code :

```
<script>
    window.onload = function() {
        var canvas = document.getElementById('fireworksCanvas');
        canvas.width = window.innerWidth;
        canvas.height = window.innerHeight;

        var ctx = canvas.getContext('2d');

        var fireworks = [];
        var startTime = Date.now();
        var duration = 5000; // 5 seconds

        function Firework(x, y) {
            this.x = x; // Initial position
            this.y = y; // Initial position
            this.vx = Math.random() * 5 - 2.5; // Random horizontal velocity
            this.vy = Math.random() * -15 - 10; // Random vertical velocity
            this.opacity = 1;
            this.color = '#' + (Math.random() * 0xFFFFFF << 0).toString(16).padStart(6, '0'); // Random color

            this.update = function() {
                this.x += this.vx;
                this.y += this.vy;
                this.vy += 0.3; // Gravity effect
                this.opacity -= 0.05; // Fade out over time
            }
```