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# Summary:

Based on the attached business case, Celtic Sea Dive Shop is a scuba diving shop operating in southwest Kinsale, Ireland. Ran by Gino Ruperez and his team of instructors and dive shop showroom staff. The owner and his team decided to build an online presence of their dive shop.

Initial requirement is to develop a website as a brochure style website, highlighting the services, facilities and equipment and accessories relating to scuba diving and other water sports activities.

The software methodology of building the website follows a Prototype Model as the development will be quick and the design can be presented to end users for immediate evaluation.

# **System Development Methodology Used**

The methodology adopted in building the website is based on Prototype Model.

Prototype Procedures that must follow:

* Requirement Gathering (Objectives, Functionalities, number of pages to develop, etc.)
* Quick design and construction of prototype
* Prototype is evaluated by user
* Prototype gets refined by an iterative process
* Given a stable prototype, final product is developed.

# Proposal

## Vision and Goals

The utmost aim is to deliver a brochure style website for Celtic Sea Dive Shop that is informative and highlighting a wide array of scuba diving services and products.

The following are the goals of this project that shall achieve:

* + Winning new friends and customers.
  + Increase presence and gain attention to the public.
  + Provide an information about the dive shop.

## Stakeholders

Stakeholders are identified as follows:

* Dive shop owner
* Website developer

## Constraints

No major constraints are identified in delivering the project except for resources which constitute the ability or skills of developer in using the CSS, HTML5, Javascript and Jquery.

The developer is new in developing a professional website using the above languages. The skills resources are based on his prior web development course attended.

## Assumptions

* The website pages are all static page
* It runs on different browser including Chrome, Firefox, Edge, and others.
* Brochure style website consisting of 3-4 pages; however, I’ve added one page to incorporate additional information about the dive shop.
* The website should be responsive, it will be viewable in smaller screen.
* For the contact form, I’ve used the GET method instead of POST since the project will not be publish yet.

## Preferred design strategy

To execute this project, I’ve used mostly of HTML5 and CSS codes and few lines of code using Javascipt and Jquery were applied. Since CSS is considered procedural-declarative while Javascript is an object-oriented language, I considered that the strategy I applied in the project is a mixed of procedural and object-oriented design.

# Website Requirements:

1. A 3–4-page website to provide a solution to satisfy the business case.
2. The website should have a consistent professional user interface (UI) with appropriate layout, fonts, and colour scheme.
3. Graphics and other media should be optimised for the web and used appropriately.
4. The navigation system should be clear and move the visitor seamlessly through the site.
5. Content provided should include all information related to the business case.
6. The site should be fully tested and working in all major browsers (Chrome, Firefox, etc).
7. The website should demonstrate best practice and adhere to good UI design principles, accessibility, and current semantic web standards (e.g., HTML5).
8. The website must use HTML5, CSS and Javascript in an appropriate way

# Techniques used for Website Accessibility

* I’ve mainly used the <h1> tag to denote the title of each page
* Using of the proper text for the alt attributes of <img> tag is beneficial for website accessibility, which I applied in the project.
* The filename of images use in website relates to what the website page is all about.
* Using the additional <meta> tags with attributes name=”keywords” ,name=”descriptions”, and name=”og:title” can improve the website accessibility, those meta tags are present in every page of the website.
* I’ve used the primary color blue, green, white, and black color which I think appropriate to the main components of my business case which is open water deep blue sea.
* I’ve used the table for tabular data like the opening hours on the contact page.
* Coding for each html and css are properly indented and readable.
* As a brochure type website, each page provides sufficient information about the business.
* I applied an informative title for each page which relates to the content of my <h1> tag.

# Weekly Log Activities

|  |  |  |  |
| --- | --- | --- | --- |
| Weekly Activities | Start | End | Activities |
| Project Initiation | 08-Nov-21 | 09-Nov-21 | Web CA is presented in the class |
| Week 1 | 10-Nov-21 | 11-Nov-21 | * Reading and understanding the detailed requirements of the CA * I opted to use a different business case other than B & B * Developed a Dive Shop Business Case   Issues: None |
| Week 2 – Week 3 | 15-Nov-21 | 26-Nov-21 | No Work done on CA Website project  I Prioritized the Operating System CA on bash scripting as the deadline of submission coincide with Web CA  Issues: Time allocation for CA Website design  Resolution: Speed up the coding of bash scripting for OS CA and fortunately deadline of submission has been extended. |
| Week 4 | 27-Nov-21 | 04-Dec-21 | Web Project Development |
| * Home page Creation | 27-Nov-21 | 30-Nov-21 | * Start the design of Home page * Visited the different website relating to Dive Shop using google search * Decided for the site map of the website, 5 static pages website namely Home, About, Services, Contact and Dive Shop. * Created the index.html for the home page and global main.css file * Decide for the background color of navigation bar, body, and footer * Adopted the blue color on nav bar while pale white color on body * Used the sublime editor for coding   Issues: Color manipulation is quite hard when  using the hexadecimal value  Resolution: Using the Visual Studio Code, intellisense feature is provided to be able to interactively select the color in hexa values or rgb color. It has an auto formatting for proper indentation |
| * Selection of Pictures to use * Coding for Navigation bar menu, Footer and Body | 30-Nov-21 | 30-Nov-21 | * Decided on the color and fonts to use for the website. * Constantly reviewing the coding on moodle and applied it on the home page index.html file structure and review the .css file in moodle and applied the same to the project. * For the nav bar menu, it consists of Home, About, Services, Contact and Dive Shop menu. * Decided the color selection of nav bar buttons when it is active, it is being hovered or it is not active. * The body of the home page is just one block area which I divided into 3 rows. The first row will be the area for home page picture that changes every 3 seconds, it uses a javascript to automate the changing of picture with fade out effect. The second row is for the Welcome message while the third row is the home page sub-title. * For the home page picture, I’ve downloaded a high-resolution picture from the internet and use it on the home page. * I’ve created a customized logo using a free app. * On the footer section of the page, I divided it into two column area one for the logo of Celtic Sea Dive Shop and Copyright while the other column is for Contact Info * I’ve used the css fontawesome library for added aesthetic on the page like email logo, fb logo and Instagram logo, etc. * Applied the coding available in moodle for responsive webpage. * I’ve also incorporated the link logo of facebook and Instagram on the footer. The link will direct you to an active social media page which I’ve also created.   Issue: alignment of home page title and home page picture overlapped  Resolution: Proper usage the padding and margin selector and correct declaration.  Issue: Alignment of footer on column 2 got cluttered when it is viewed to small screen  Resolution: Use the max-width declaration for the selector use on footer section |
| * Continue developing for the rest of pages | 1-Dec-21 | 1-Dec-21 | * Added the following pages:   + About   + Service   + Contact * More pictures added for About pages * Add video on Services * Formatted the Contact form, I’ve used the coding example from the moodle and add another field for the dropdown field to list the services available * On submission of the contact form, end user is prompted with alert and redirect the user to home page * I designed the about page body with 2 columns. The first column consists of two blocks with one block having 2 columns to accommodate the Meet the team pictures and description. * I’ve used the table element for the opening hours   Issue: Alignment of pictures in about.  Resolution: Created the row column, outer and inner div. Again, use the proper selector and declaration for width. height, padding and margin |
| * Continue developing the remaining page | 2-Dec-21 | 2-Dec-21 | * Added the Dive Shop page * I’ve made the body consists of 4 rows, the first row is one column, the second and third row consists of 3 columns while the last row is just one column   Issue: None |
| * Functional testing of the website | 3-Dec-21 | 3-Dec-21 | * Run the website on chrome and edge   Issue: None |
| * Report | 4-Dec-21 | 4-Dec-21 | * Use the word document for report creation   Issue: None |

# Lessons Learned

* + Develop the static website using HTML5 and CSS
  + Apply styles using css
  + I’ve learned the basics of Javascript and Jquery
  + The use of outer and inner <div> is helpful in creating area on the page
  + It gives me a good understanding on how you will layout the page according to your desired plan.
  + The padding, the border, margin, and actual content are very important element you must considered when placing your content on the page.
  + In designing and placing your content page, it is important to understand the functionality of inline and float declaration.
  + Understanding the html, css, javascript and jquery gave me a good foundation for a more challenging work in web development.
  + I’ve also learned how to apply the css *@media only screen* to make the website responsive.
  + I’ve learned to use the <table> tag for a tabular data
  + I’ve learned to embed video using <iframe> tag as an added feature of the project
  + I’ve learned to use the css fontawesome library for added design on the project.
  + I’ve learned how to make a different layout on page like multiple rows with multiple columns using <div> tags
  + Knowing to use and formatting a <form> tag is also a good learning.
  + I also like the usage of <ul>, <ol> and <li> tags to display a list of data.
  + The use of css @font-face is an added learning for aesthetic effect in webpage.

# References and Utilities Used

* *Google Search Engine*
* *Google Chrome, Firefox, Edge for testing the website*
* *Web design and development from DBS Moodle*
* *Visual Studio Code and Sublime Text for source code editing*
* *Sublime Text*
* *Active Website similar to my business case*
* *W3schools* [*https://www.w3schools.com/html/default.asp*](https://www.w3schools.com/html/default.asp)
* *Stackoverflow* [*https://stackoverflow.com/*](https://stackoverflow.com/)
* *Word Document for report*

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