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**CodeNation website project**

Website subject possibilities

1. Gardening/landscaping agency
2. Music notation software related site
3. Corporate/business site
4. Black & neon gamer/music style page

**Unit 1, Outcome 1**

**Scenario** You are wanting to set up as a consultant. To prove your knowledge you want to start by creating a blog talking about yourself, why you are interested in technology and demonstrate how much you know. For each of the sections below asking you to describe, include around a paragraph of information about the topic.

* 1. Describing the purpose of IT in my work

The purpose of IT is to assist in the storage, management, creation, and dissemination of information. This information can come in a wide range of forms, including text, communication data, databases, images, and sound. In this particular project, IT is both the subject of interest of itself, and the means of studying it.

* 1. Describing methods, skills and resources needed to complete digital projects successfully – what do you need to make projects successful? What tools? What skills?

A successful digital project can mean a number of things. To define it a success we need to set out what we hope to achieve in the planning stage. Only when we look back after completing a project can we see how close we came to our stated goals and judge it a success or not. Planning then, is one of the biggest parts of any digital project. A clear goal and a roadmap for getting there are the most useful tools in the toolbox. On top of this, there are a huge range of technical skills that may or may not be required. Choosing the right tools can be just as difficult as using them sometimes. This selection will be largely determined by the type of project, and should be set out in the planning phase.

* 1. Plan and carry out tasks using IT – e.g. making your website. How will you plan it? Include a link to your Trello board.

In this project, the planning was done initially on paper, brainstorming possible website themes. This led to research on similar website’s design and structure. In this phase the main tool was the internet browser. After deciding on an initial structure, I used draw.io to sketch a very rough idea of what the homepage should look like – I diverged from this as the project progressed, but it was a good tool to get started with and gain initial momentum.

Trello was useful to move forward after the initial stage, in this case used as a simple to do list. Here is the Trello board for this project:

<https://trello.com/b/WoXMUP33/website-project>

* 1. Describe the risks that might impact digital projects – what causes digital projects to fail? Why?

Digital projects can fail for all the same reasons as other types of projects – commonly these can include a lack of planning, a lack of focus, time constraints, and budget constraints. Digital projects are particularly sensitive in some areas though – data loss is obviously a huge concern, but also the speed at which IT grows and improves can leave longer term projects outdated or even worse obsolete if care is not taken in the initial planning. Another vulnerability might be the centralisation of knowledge which can happen if there is only one programmer on a project. If they are suddenly unable to continue, the whole project could be halted while others try to catch up on the details in the minutiae of code. On top of these risks, one of the most obvious is a cyber-security breach. If a malicious actor gains access to the project data, then the consequences could be catastrophic, depending on the project.

* 1. Describe how you would go about selecting and using IT systems and software – how do you select the right kind of technology for the job?

This would completely depend on the nature of the project. Personal projects are usually started with little more than a laptop and a text editor. Bigger jobs might need servers, data centres, network installations, etc. Generally, some margin of error should be included when choosing systems and software, for the scenario where a project becomes bigger or more complicated than expected.

* 1. Describe and provide analysis on how your chosen technologies have helped you achieve your outcomes. – How has Trello helped you plan and how can git and GitHub help with your codes version control

Trello has proven to be a useful tool in the lifecycle of a project. In this project I used it as a way to stay focused on the tasks I had planned, and not get side-tracked by adding features that weren’t in the plan until the to do list was cleared. However, I found that it was much more useful when working on a team project – in both the planning and implementation phases. On more code-heavy projects I can appreciate that a version control system such as Git could be an indispensable part of the workflow. On this small one-man project it’s value was not so obvious, but it will be useful as a repository and a way of sharing the code in the future.

* 1. Describe legal guidelines and constraints that impact digital projects – How does GDPR impact digital projects?

The risk of fines and/or reputational damage that may result from a breach of GDPR regulations should be incentive enough to ensure that any digital project complies with these regulations. Anyone who collects personal data also has a moral responsibility to ensure that that data is handled and stored safely and responsibly. Collection of personal data should be kept to the minimum required, and records should be kept on how that data is handled. If data is lost, altered, destroyed, disclosed to an unauthorised party, this must be reported immediately. Larger organisations may also have a responsibility to train their staff in the principles of GDPR and their implementation.[2]

**Unit 1, Outcome 2**

**Scenario** Now you have setup your blog, it’s time to get into the detail. You now need to critically review your website. To the bottom of your website add a review section that contains the following information.

**2.1** Review the ongoing use of IT tools and change approach as needed – in making your own website, are you happy with the tools you used? E.g. Visual Studio Code, Trello

Visual Studio Code was the key tool in this project. This was where all the code was written, and also how the project files were created, edited and managed. The live preview extension was the chief advantage over a simple text editor tool. Another benefit was the code colouring and linting functionality, which makes writing and reading code much easier and more pleasurable. As the project progressed, I found it increasingly necessary to use Google Chrome’s developer tools to check how the elements were styled and find out where things were not happening as I had expected. This tool was also invaluable to check on responsivity, as it allows you display the website as it would appear on a variety of different devices and screen sizes.

**2.2** Describe whether the IT tools selected were appropriate E.g. Visual Studio Code, Trello

As the project progressed, I found it increasingly necessary to use Google Chrome’s developer tools to check how the elements were styled and find out where things were not happening as I had expected. This tool was also invaluable to check on responsivity, as it allows you display the website as it would appear on a variety of different devices and screen sizes. Trello was useful in the planning stages, and also in the final stages of the project for making notes on bug fixes, visual improvements and other finishing touches. It also served as a good repository for relevant links.

**2.3** Assess the strengths and weaknesses of your final project – are you happy with your website? Why? Why not? You should review it on the website itself in the interests of openness. What would you change?

I think the final project is pretty decent looking simple website. I think I succeeded in keeping a fairly minimalist design across all pages, with an overall look suitable for many kinds of businesses. I don’t like the font of the main title in the header, and the google maps embed doesn’t really fit the overall style of the site.

**2.4** Describe further improvements you can make to your project

I would like to find an embeddable map with a less fussy and less colourful interface. I’d like to do some more research on typefaces and fonts to come up with some more visually appealing options in these areas.

**2.5** Review outcomes to make sure they match requirements and are fit for purpose

I think the site generally would be fit for purpose as a fairly simple company homepage. The main ‘login’ button on the front page would require some extra coding to provide any required functionality, and some form of user updateable content management system would be required to allow the users to add blog posts on that page.

**Unit 1, Outcome 3**

**Scenario** Continued from previous task.

**3.1** Review the benefits and drawbacks of IT tools and systems used in terms of productivity and efficiency – could you have been more efficient when making your website? How? Could you have done it in teams?

**3.2** Describe ways to improve productivity and efficiency

**3.3** Develop solutions to improve own productivity using IT in digital projects – what would you do differently next time? Team work? Use of Slack?

**3.4** Describe how you would go about testing digital solutions

**Unit 2, Outcome 1**

* 1. Describing the content and layout for each page

Page 1 (Homepage)

Full-screen background image, with a large button for CTA.

Top Navbar with responsive hover

Scroll down for a 2 or 3 column layout beneath the fold.

Some text and infographics related to products/services.

Footer with contact details, socials, and further site navigation options.

Page 2

A more detailed look at the company’s services or products. Perhaps some case studies or previous customer endorsements.

Page 3

Our people / meet the team page.

Page 4

Blog page, with a series of dated articles and accompanying picture.

Page 5

Contact page with a google maps embed, address, email, telephone numbers and social media links.

* 1. Plan and create your website

After deciding on a website aimed at business users, I spent some time looking at websites of this type. I choose to proceed with the 5 page layout as described above, with a fairly conservative design. Site navigation would be aided by a standard navbar at the top of the page. I aimed to make the site reasonably mobile-responsive, as much as possible within the time constraints of this particular project.

* 1. Selecting and using website features and structure
* Large main image
* Navbar
* CTA button
* Photo gallery
* Blog
* Maps embed
  1. Selecting and using styles to keep your site consistent

A simple grey and white with hints of yellow/gold colour scheme. Chosen with the aim of projecting a formal but reassuring respectability. I chose the Gilroy-Light font for the main text after I saw it and liked the way it looked on the CodeNation website.

* 1. Describing copyright and other constraints affecting websites

Copyright protection is automatic in the UK – you get it automatically when you create a website, and in most cases it will last 50 years.[1] You can add the copyright symbol with your name and the year, however this is not necessary, and not doing this will not lessen your copyright protection.

You should take care not to infringe on the copyrights of others by using their content in your webpage without permission. Original content is best, or images from photo-stock sites are abundant on the web.

* 1. Describing access issues that need taking into account – describe issues that people with disabilities may face when using webpages and how we can overcome them.
* Ensure that HTML is semantically appropriate, and that tags reflect the content and structure of the site. This helps the site be accessed by screen-readers and other accessibility tools.
* Care should be taken that colours are chosen in such a way that visibility is not hindered.
* Likewise, fonts and font-sizes should be appropriate and easily readable.
* There are various online tools for assessing a sites level of accessibility.
  1. Describe which are the appropriate filetypes for websites

HTML, CSS, and JS files are the most common filetypes associated with websites. These form the core structure, visual design, and functionality of most pages.

In addition, these may contain images in JPG,PNG,SVG,ICO, or other formats, audio and video files, PDF documents and others.

* 1. Storing and retrieving files effectively

For this project, all files were stored and retrieved locally. In a real world project, the files would obviously need to be stored on a web server, with several different backups – either locally, in the cloud, or a combination of both. A service such as GitHub could also double up as both a version control system while developing the site, and later as a code repository and further backup.

**Unit 2, Outcome 2**

* 1. Preparing appropriate content for your website
* The site logo was created with Canva.
* The Gilroy-Light font was downloaded from a free resource.
* The graphic illustration was downloaded from storyset.com
* Stock photography was downloaded from Unsplash.
* Team images were downloaded from the web and cropped in GIMP.
* Text content was initially all lorem ipsum text, auto generated in VS Code.
* Other content was either adapted from some tech news sites (referenced on trello board, and linked to by the relevant site elements), or generated using random content generator tools.
* The map embed was from Google Maps.
  1. Organise and combine information needed for webpages including different platforms

Aside from the resources above, websites such as css-tricks[3] proved useful in researching strategies for organising the content visually.

* 1. Select and use appropriate editing and formatting techniques for clarity and good navigation

Appropriate font sizes were selected in the CSS. Media queries were used to provide responsiveness to different screen sizes etc. Headings and important text were styled with CSS, and links were applied using the anchor element.

* 1. Select and use appropriate development techniques to link information across pages

The constant navigation bar at the top of every page provides the main navigation interface, ensuring all pages can be reached from each other with one click. In addition, the site logo and title in the header double as a link to the homepage.

* 1. Changing file formats for documents if necessary to display on your site

No file format changes were required in this project. The sample blog content had to be adapted and edited for display purposes. I also added lorem ipsum text randomly throughout to make it clear that the site was a sample site, and to avoid any plagiarism and copyright concerns. The text was initially all lorem ipsum, but I felt that this was visually unappealing, and less engaging than what I ended up with.

* 1. Error free pages that are fit for purpose

I have conducted some testing, and found the site to be free of any major errors in it’s main functionality.

**Unit 2, Outcome 3**

**Scenario** Let’s put your site live!

**Statement of Work for your client**

**3.1 Test your site appropriately to make sure it works on different browsers and that everything works as planned - on your GitHub repository for your page include a screen shot of it working in chrome and Firefox**

3.2 Identify quality problems and respond to them accordingly

**3.3 Use GitHub pages to launch your site**

3.4 Respond appropriately to problems in your pages and fix them

[1] <https://www.gov.uk/copyright>

[2] <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/principles/>

[3] <https://css-tricks.com/>