Codenation Website Development

Brief

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.

About me

Hello World, my name is Lee and I am breaking out of my comfort zone and beginning a new journey into coding, hopefully you will enjoy joining me….
I consider myself lucky to have been part of the generation that grew up alongside the onslaught and rise technology over the last 30 years, seeing significant changes in how we organize ourselves at work, deal with our daily lives and entertain ourselves in our own homes.
I can still remember the first time I went to a games arcade, used the BBC Micro at school or waiting patiently in my bedroom with wide eyes as my Commodore 64 loaded up the lastest side scroller. My interest in this field was cemented.
I spent the early part of my career in the logistics industry which was revolutionized by the ease in which route planning and database programmes were implemented into our daily working routines. Despite being the end user in this situation I was able to work closely with our in-house developer and gain knowledge of what was possible and how to apply the developing systems in a practical and purposeful way.
I continued onwards and became more involved in the hardware and production side of the Industry, with a slice of sales and customer service for good measure. Hands on repair and construction allowed me to merge my software knowledge and tracking faults down became an enjoyable cat & mouse game.. And now I've come full circle, back to where it all began and I get to consider the foundations of everything IT...coding, let's see where it takes us together..;)

Unit 1.1 Describing the purpose of IT in modern business

Today it's hard to imagine any company existing without utilizing available modern technology, the applications are almost endless, but I will try to detail some here. Given my own experience of inventory and stock control systems that have allowed companies to run much more efficiently. Tracking usage and despatch of items, coupled with scanning technology and links to point of sale can make replenishment a closed loop, giving companies live up to date information in ever changing markets.

This above usage can also be transferred to the storing of Data and use of customer information, accounts and marketing solutions.

As previously mentioned I was able to witness the changes IT brought to modern business first hand, personally one of the most significant has been the strides in communication. The earliest of these being Email has changed the way we all work, contact and response with employees and clients has become instant, the world has become much smaller with geography no longer a factor. And now companies are able to make contact using live chat, video conferencing and a litinary of communication applications utilizing smart phones. These are just a few examples but employed correctly they add to productivity and maximize time usage for any modern business large or small.

Source
https://smallbusiness.chron.com/information-technology-its-role-modern-organization-1800.html

Unit 1.2 Describing methods, skills and resources needed to complete digital projects successfully – what do you need to make projects successful? What tools? What skills?

Digital projects can be uniquely tackled as they are malleable by their nature and can be easily altered, adjusted and improved. Utilizing agile project management principles collaboration can greatly assist in gaining the best results and making a digital project successful in its execution. The principles of agile working builds on digesting projects into manageable chunks, allowing greater focus and clarity. Other skills and resources that can aid in effectively delivering a digital project include: effective communication, building trust, reviewing and reflecting. In my current

project I have utilized Trello as my main management tool allowing to work quickly and efficiently.

Source
https://activecollab.com/project-management-guides/managing-digital-projects-ebook

https://www.apm.org.uk/resources/find-a-resource/agile-project-management/

Unit 1.3 Plan and carry out tasks using IT – e.g. making your website. How will you plan it? Include a link to your troll board.

Given what I have learned over the last few weeks, my first task has been to set up my Trello board, I have structured it based around the question and answer sections. This will help me to control the content of my site and edit quickly where required. I have laid it out using the Kanban style as in the previous project, a simple system of color coding and moving the cards to the final completed list. I have also included cards for graphics and style choices, updating with my own thoughts and comments as they become available.

Here is a link to my Trello board
https://trello.com/b/JjNKeOVP/website-development

Unit 1.4 Describe the risks that might impact digital projects-what causes digital projects to fail? Why?

Digital projects with all the benefits previously mentioned are not without their own risks, that could if not managed correctly impact on the success and outcome of the project. This can include fixed plans that don't allow for change, long term projects need to keep updated using agile iterative processes that allow for frequent tweaks, digital projects should be flexible enough to represent the changes of the business or market represented.

Misalignment with business processes or functionality can lead to failure if the practical application of the project is ignored. For example a website created solely with digital staff working on it without the input of anyone with any process knowledge of that business may produce a site that works well for the front end user but creates problems for back-end operational process and is ultimately a failure.

Over ambition, something I experienced on my first Python game project, realistic goals given the available software tools, staffing, time scale and keeping to the original scope of the project is paramount to success, striving for perfection and deviating from established methods can ultimately lead to failure.

Source
https://www.celerity.com/5-reasons-digital-projects-fail-the-forgotten-role-of-business-process

Unit 1.5 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?

In selecting IT software and systems for a project it is important to first understand the overall requirements of the project, the why and the what the project is required for. Producing a family website for personal use or building an application to work within a business sound very different but could employ similar approaches if broken down into the following, quality, scope, deadline and budget. For example I could in a relative small amount of time produce a basic HTML site for personal/family use, costing me little with limited functionality but giving me the desired results within my original scope. Using the same mantra I could approach developing an application for a business, however this would call for me to discuss scope with the customer, set a realistic timeline for the development, establish budget and thus required team levels to complete within deadline, and employ project management software such as Trello to manage the team and update the client with progress. Each project tackled would need a different approach and if the priority of quality, scope, deadline and budget is changed the need to adapt and select relevant systems to achieve the goal will be required.

Source
http://www.agiledata.org/essays/differentStrategies.html

https://medium.com/flowingis/choosing-the-right-technology-for-the-right-project-dda9fa27320f

Unit 1.6 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.

I have thoroughly enjoyed my first experience of Trello and I wish I could have employed it's usage in my previous job role. It has allowed me to keep control of how my project is progressing and to utilize the functions of the software to work for me. I have been using the cards to update my answers, leave myself notes, links to reference sources and set times for card completion. I have been using a simple traffic light colour scheme to give myself a visual indicator of where each task is up to and I have gained satisfaction when it's moved into that final completed column. It has also allowed me to work quickly and efficiently on multiple tasks at the same time, changing between my cards with a click. I can then easily copy and paste my completed cards across to my HTML and CSS pages to create my website.

Git is a VCS, "version control system", it can be used on virtual projects to keep track of changes and create a historical record of those changes automatically.
I have not employed it's usage for my particular project but I can now see it's importance and would look to use it in the future. For a software developer it would be invaluable to be able to revert back to the original basic program you started with after making any changes or experimenting. This tool could be employed to fault find if those changes had unexpected outcomes meaning you can be creative without fear of irreversibly destroying the original code. My research has also explained that it allows multiple developers to work independently on the same project without disturbing each others files, making collaboration much easier. Using Git in conjunction with Github allows developers to discuss their projects, share their code and offer assistance in a social network setting, it can also be a place to get noticed by potential employers.

https://codeburst.io/git-and-github-in-a-nutshell-b0a3cc06458f

Unit 1.7 Describe legal guidelines and constraints that impact digital projects – How does GDPR impact digital projects?

GDPR or the General Data Protection Regulation is a European directive that came into effect from May 2018, it was established so individuals could have greater control over their personal data and assurances that their information is being securely protected.

According to the GDPR directive, personal data is any information related to a person such as a name, a photo, an email address, bank details, updates on social networking websites, location details, medical information, or a computer IP address. The regulation does not make any distinction between personal data about individuals in their private, public or work roles – the person is the person.

When working on a digital project that handles private data it is ideal to produce a DPIA or Data Privacy Impact Assessment, this will assess the scope, context and purpose of the data required, whether it's necessary to process the data and what compliance measures there are or will be in place. It can also establish if there are any risks to individuals data and the measures you can take to mitigate those risks.

If your project has any risk of exposing individuals data in any of these areas, then the fines for lack of compliance are huge, which is why they should be taken into consideration and data protection should be established from the start.

https://www.girlsguidetopm.com/gdpr-project-management/

https://www.computerweekly.com/podcast/GDPR-compliance-and-storage-in-digital-transformation-projects

Unit 1 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.

Given that this is my first project I have definitely changed the way I have used the provided tools of Trello and Visual Studio Code from when I started. For example I have come to rely heavily on Trello to control where I am up too and what needs to be completed, using timed alarms and colour coding to show urgency. I decided to use the cards to type up my answers, given that I can work from home or even via my phone and just add notes for myself through the day. I have had to concentrate heavily on the coding side and by using sites like https://www.w3schools.com/ to give me information on how to tackle my problems, my use of VSC has become easier, I now tend to have the HTML and CSS pages open side by side and then copy and paste from Trello into my webpages.

Unit 1 2.2 Describe whether the IT tools selected were appropriate E.g. Visual Studio Code, Trello.

I can definitely see the benefit of using Trello, I wish I had been aware of it in my previous roles where project management was relegated to a pen and paper or a physical whiteboard.

For somebody new to this environment I think it's a great starting point and the more I use it the more functions I began to find, the more lists I added, notes to myself, colour coding, setting out in the Kanban style and setting dates for task completion, it's become second nature in a short period of time.

Using VSC I did have a little difficulty getting used to how the files work and interact with each other. However once I got the hang of it, it's been great to see the effects my changes make and how the code interacts between HTML and CSS. I have watched my website come to life.

Unit 1 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?

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I began my website with a particular theme in mind, a wanted a 1980's retro feel, reminiscent of the game arcades I grew up with, using buttons and backgrounds to highlight this with even a few sounds here and there. However my plans were just too ambitious given my level of skill, I had to investigate each action required and learn the code line by line. My first hurdle was the color scheme of that period and the graphics I had downloaded to use, despite looking great it was hard to highlight my text, I tried to use transparent backgrounds to highlight the paragraphs but it just became too busy, time was ticking and I decided I had used up enough on this.
I quickly established a new theme of sky and sky scenes, using clouds and a brighter colour scheme of blues, my favorite colour, which stood out much better, giving a cleaner friendly look to the site. I had already decided from the start that I wanted to use separate pages and link them together with a top navigation bar, this did present its own problems but I persevered and I am happy that I got it to work as desired. Overall I am happy with my first creation and I am looking forward to actually putting together my 80's style site to showcase some of my retro toy collection, watch this space.

Unit 1 2.4 Describe further improvements you can make to your project.

I think I would have liked to have been able to add a little more of my own personality into my first project site. For example using images that I have created myself, making a small introduction film to be added to the site, custom making some buttons and playing around with fonts and other visual effects. I have been investigating numerous personal websites on the internet and have gained a better insight into what makes an elegant but simple website that stands out.

Unit 1 2.5 Review outcomes to make sure they match requirements and are fit for purpose

I have read through all my outcomes and I am happy that they cover the requested topics and that I have answered the sections to the best of my current knowledge. I have detailed my answers researched from the internet with links to the source material, I have commented on my progress with my failures and my minor triumphs in building my website. I have also used my Trello board to control my progress and set deadlines. I would as previously mentioned make a number of changes to my website but I am happy it is working and can be read clearly.

Unit 1 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?

Having now gained experience of the benefit of Trello during my first project and the how to use it efficiently I have improved upon it's usage, by using a simple colour scheme for visual aid and setting it out in the Kanban style as explained, coupled with timed cards to prioritize tasks. This software could be used easily in teams as it was in my first project where tasks can be assigned to individuals where we all have access and can see how the project is developing. I have now gained knowledge of git and github which could be employed with greater emphasis on teamwork and collaboration with the code whilst still maintaining the integrity of the basic program.

Unit 1 3.2 Describe ways to improve productivity and efficiency.

During the project and with some research I have concluded a number of ways that productivity and efficiency could have been improved or maintained.
Keeping goals achievable, one large project even with a reasonable deadline can be overwhelming, breaking the project down into smaller iterations shows clear progress and motivates you as move toward the final product, Trello has really helped me achieve this over the final stages of this project.
Prioritize, describe the top two or three high priority tasks you need to complete, in my project it has been the "written content", focus on these and then estimate the time you should devote to these tasks. Set yourself deadlines and keep them.

Unit 1 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?

I think on my next project I would complete the work in sections, ie I would have completed my written content for the site first, having the content complete so I could then decide on my layout and theme of the site based on the content. I would employ a tool like Trello to maintain control of where I am up to and which tasks need completing in which order. first. I may employ a program like draw.io to layout my site design and how the pages would interact with each other. Despite this being a solo project I have had numerous conversations with other members of the class on Slack, it was employed heavily in my first project and those connections have been maintained.

Unit 1 3.4 Describe how you would go about testing digital solutions.

Software testing can be a lengthy process and can be broken down into various levels. The first level is during the development phase when it is tested for functionality. The second level is integrity testing where the independent software is tested in the context of other software that will interact with the software being tested. The third level is the complete integration stage where the software is ready and is tested by real life users. An extension of this could be a fourth stage of testing where the focus is on user experience rather than functionality.

Section 2 Scenario Brief 1

Scenario You are setting up as an independent consultant, which is very exciting, however, you're going to need a website of your own to highlight your skills, availability and areas of work. It's time for you to create a website that details you, and including pages/sections and a how you built it page:

Section 2 scenario Brief Outcome 2

Now you have setup your consultancy website, it's time to advance your reach further and get relevant content on there.

Unit 2 1.1 Describing the content and layout for each page

I have laid out my website with a front page including a small introduction and the purpose of my site. I have then used a top navigation bar to link to the other separate pages. I have built the pages as follows, Front cover, My story, Unit 1 Outcome 1, Unit 1 Outcome 2, Unit 1 Outcome 3 and Unit 2 Outcome 1. I have included hyperlinks under each of the relevant paragraphs for source material and then a final reference at the back of the site. The paragraphs are separated into their own transparent background to highlight the text. I have used a bright and friendly blue sky theme throughout the site.

Unit 2 1.5 Describing copyright and other constraints affecting websites

Copyright and other intellectual property laws affect websites because it may restrict what you are able to publish. The best way to deal with this is to first get permission from the original author, second, if you want to publish information on your site from another site, link to it and perhaps get permission to publish an excerpt from the original site.

https://www.hallaminternet.com/internet-marketing-and-the-law-legal-issues-affecting-you-and-your-website/

Unit 2 1.6 Describing access issues that need taking into account - describe issues that people with disabilities may face when using web pages and how we can overcome them.

I would want to make my new website accessible to all, including people who would need mechanisms in place to browse my pages as easily as anybody else. People who may have a physical difficulty or be partial sighted or blind, people who may be hearing impaired or deaf. Developers have attempted to tackle this challenge and the following tools can be employed to make sure nobody misses out on what you have to say.
For people who have a physical difficulty and cannot use a mouse or keyboard sites can be designed to use voice activated software for example Google Voice Search or similar software utilized by Amazon's Alexa device to navigate the website.

This type of voice activated software can also be helpful to people who are blind or visually impaired, employing other tools such as making allowances for Enlarged Text, using contrast

and colours that make your site visible and easy to see and the use of keyboard shortcuts to aid navigation.

For people with hearing impairment or who are deaf, descriptive tags can be added to your site giving more information or subtitles added to movies and sound files. These technologies are unfortunately only supported by a small percentage of the internet and with this subject being close to my heart, I would look to employ their use in any future projects.

https://www.hobo-web.co.uk/design-website-for-blind/

Unit 2 1.7 Describe which are the appropriate file types for websites.

Websites can utilize a whole host of different file types to achieve their goals and these file types will be found all around the internet. I have attempted to describe a few of them and there uses here. With languages like .HTML/HTM and .CSS used to create the code to construct the site. Images can be added to the site using .JPEG, .JPG .PNG. and .GIF. Movie files can also be present using .MPG/ .MPEG, .MOV/ .QT, .AVI. Music or sound files come in the form of .MID/ .MIDI, .MP3 , MP4, and .WAV. Document files like .PDF. Text files like .TXT or .DOC. And files that compress data such as .RAR or .ZIP. The ever changing internet will probably have added a few more but these file types have been a constant for many years.

https://www.yourhtmlsource.com/starthere/fileformats.html

The End….