Portfolio Project Brief Template

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| Item | Criteria | |  |
| Student Name | Kevin Gyan-Baffour | | |
| Title of the Brief | Create an Scalable Vector Graphics (SVG) animation on a responsive website | | |
| Brief No. | 2 | Weighting average %40 | |
| Relevant Job Role  (With evidence) | **Frontend Developer** <https://www.glassdoor.co.uk/Job/svg-media-jobs-SRCH_KE0,9.htm?jl=25377536255>  **Required knowledge and experience**   * HTML5, CSS3, JavaScript, jQuery - Your JavaScript, CSS3, jQuery and HTML5 have to be sharp and dependable * **SVGs**, **HTML5 canvas**, CSS3 animations (or at least a strong desire to learn) | | |
| **Web developer**  The successful applicant would be helping to develop and improve the company’s ecommerce site ohpolly.com on frontend and backend development.  For this role the applicant should have personal characteristics in the following:   * PHP/MySQL experience * Semantically marked-up HTML * CSS, including experience with pre-processors (Sass) * Writing clean and maintainable JavaScript, jQuery, AJAX and XML * Photoshop, Illustrator, InDesign for web production (e.g. cropping, masks, selection, layer comps, **creating SVGs**) | | |
| **Front End Web-Application Developer**  The job description entails the applicant to have experience in with client side MVC frameworks such as Angular.js, Knowledge of CSS per-processors such as Sass, UX / UI design experience and knowledge Web graphics/animation skills such as CSS animations, canvas, requestAnimationFrame and **SVG.** **Front End Developer** The main skills required for this role are PHP, Drupal, JavaScript, jQuery, Node.js/Gulp, **GSAP** and HTML5 & CSS. Experience of Apache web servers is advantageous, as is knowledge of AWS, as well as Waterfall and Agile software development frameworks. | | |
| Rationale for the choice of portfolio item & why you chose the weighting value. | Reasons for this choice for my portfolio is that being a front end developer adding images and animations is very important as users value seeing graphics on websites that are intuitive.  (Cousins C, 2017) points out that small, simple animations are engaging and interesting; the user might not even think about their being an animation at all”.    Animations in Web are very common trend in web development as there are many websites that need some illustration, directions or instructions, using little animations such as SVG help serves as a hint for users, considering navigation on the specific website and to increase usability.  SVG’s is more like a guiding tool for users on a webpage and a good way in creating graphical images on a website and mobile application development as most mobile devices uses very high resolutions and SVG’s are vector graphic and are scalable.  (Oberoi S, 2016). States “SVG is an XML-based format that allows you to create an image by using defined tags and attributes. Your code will render an image that you can edit right in your code editor”.  **Rationale.**  However, adding vector graphics to a website has always been a curious but interesting technique that I would like to learn and the fact that CSS and JavaScript can be used to manipulate the graphic fascinates me.  Advantages and reasons for using SVG in a website:   * **Scalable:** SVG’s are vector images, which mean they could be scaled to whichever resolution without loosing its quality. * **File size:**   SVG’s are usually small in size and lightweight compared to PNG or a Jpeg so using SVG in your webpage would be beneficial for the performance of a website.   * **Being able to Modify:**   According to (Ryan I, 2017). SVG could be manipulated and modified using CSS animations and JavaScript.  **Resolution dependant:** (Girard J, 2017) Indicates that SVG files can be scaled up or down to accommodate the changing size and layout needs of a responsive website.   * **Benefits:** Search Engine Optimisation **(SEO**) * **SVG** can be easily manipulated with CSS or JavaScript. * **SVG code** can be easily added to the HTML of a web page   As SVG may not be ideal for all images on a website, but they are useful for icons such as interface icons and logos.   * SVG images can be created and edited with any text editor Such as Notepad or sublime text. * SVG images can be searched, indexed, scripted, and compressed * SVG images are scalable * SVG images are zoom able (and the image can be zoomed without degradation) * SVG is written in XML (W3schools, 2017).    (Girard J, 2017). Notes “One of the benefits of using inline SVG is that since the graphics are actually drawn by the browser based on your code, there is no need to make an HTTP request to fetch an image file. Another benefit is that inline SVG can be styled with CSS.”  Creating SVG by using CSS and some JavaScript and also I would be embedding the created SVG animation on to a responsive website.  Weighting value. 40% - reasoning being that I would be learning to use XML.  Furthermore, I would be learning to use Adobe Illustrator to create vector images. And  And also using CSS and JS to manipulate the vector graphic and also to be able to use CSS or JS to animate SVG for a responsive website. | | |
| The type of production practice /media product and the relevant skills you have to create it | Skills I already have are as follows:  **Skills:**  HTML  CSS  JavaScript  Illustrator  Canvas | | |
| Intended techniques and approach used to create / deliver the item that are more advanced or innovative than your previous work. | I would learn to use basic XML, which is similar to HTML, but has elements for creating shapes.    All SVG files are written using XML. So SVG can be embedded in a web page as an SVG file or as a raw XLM code. (Rocheleau J, 2016).  **Using CSS in creating animations animations**  CSS can be used to animate SVG, which includes using; hover state, transforms, transitions and animations. (Stack exchange, 2017).  **Responsive Layouts:**  (Rocheleau J, 2017). Suggests, **“**Mobile responsive websites stretch to fit any monitor regardless of resolution or screen size. SVG images fit this exact same description to a T”.  SVG’s best for following:   * Logos * Texts * Icons * Or background content   (Soueidan S, 2015) emphasises that “CSS is great for animating SVG’s but JS is a better option because it helps solve cross browser issues. As such, use it when you can but fall back to JS when the animations are more complex or don't work cross-browser.” Use JavaScript animations if CSS won't work As stated by (Stack exchange, 2017) little JavaScript can be used to animate SVG’s without the need of a JavaScript library, more so JS is much better as it has much more browser support. **Animating With Inline SVG** This technique according to Wade J, gives a very flexible way of animating all aspects of SVG with CSS.  However, The use of libraries such asGreenSock Animation Platform (**GSAP)** may be useful for complex animations.  **GASP:** “GreenSock Animation Platform (**GSAP**) is a suite of JavaScript tools for high-performance HTML5 animations that work in all major browsers”  (Green sock, Inc. 2017).  (Chaize M, 2013). Suggests as SVG is an XML file, Adobe illustrator can store private information file for edit later, which is a way to save an illustrator File in XML.  Animating SVG using could be done in various ways such as animating it through key frames as follows: in **(SVG)**  <svg viewBox=”0 0 127.9 178.4”>  <path id=”left-leg” d=”M37.6, 138.8c0…”/></svg>  <  In (**CSS):**  In JavaScript the animation can be done by a way of rapidly changing the property values.  .Left-leg {  fill: orange;  animation: dance 2s infinite alternate;  } @keyframes dance {  100% {  transform: rotate (3deg);  }  }  According to (CSS-tricks, 2014). “ There are some frameworks For working with SVG that typically have animation stuff built in. Or animation frameworks that work with SVG. Such as:   * SnapSVG * GreenSock * SVG.js * Velocity.js | | |
| Equipment, software and any other resources required delivering your product. | Tools and resources required in delivering the product are:  **HTML**, **JavaScript**, **CSS, CSS animation** and **XML**  **Adobe illustrator** – which would be used to draw vector images.  **Terminal (IOS)** for running SVGO to lean down the SVG file for better performance. Ryan I. (2017).  **Web browser** that support SVG as not all web browsers may support.  **Text editor** – Sublime  **SVG.js**    **Using Snap.svg JavaScript libraries:** this is a new JS library for working with SVG, (Snap.svg, 2017) states that “Snap provides web developers with a clean, streamlined, intuitive, and powerful API for animating and manipulating both existing SVG content, and SVG content generated with Snap” | | |
| References (Harvard) to the work of practitioners in a similar area with your analysis of their technique, critical comments and how they have influenced your choices. | 1. The sales seek Website by **salesseek**     (Salesseek, 2017).  According to (CSS Nectar, 2017). The Sales seek website created by salesseek has the following features:   * Animation * JQuery * Responsive * SVG   The website is very simple and except for the SVG animation that could be a little bit annoying.  However, the website is responsive and has SVG animations and texts.  Below is screenshots of the website on multiple devise.      (Salesseek, 2017).  In analysing the performance of the pages of the theme I used **YSlow** to examine all the components of the page and loading times came out with an overall numeric GRADE of D.    Which would need optimising for better performance  Below is a screenshot of the statistics:    The page has a total of 86 HTTP requests and a total weight of 6379.0K bytes with empty cache  The **Memory** Distribution by the page's JavaScript objects and related DOM nodes below:    **Performance** metrics as the page runs.  Below is the CPU chart and Summary of the **Newsmag-lite**    2. **Anna Eshwood by Big Drop Inc.**  (Awwwards, 2017) indicates the Anna Eshwood Wordpress website features the following:   * **CSS3** * JQuery * **SVG** * HTML5   The website is made up of a black and white theme with white SVG animations on load at the homepage. This really inspired my choice for the portfolio project.  Below is a screenshot of the website:    (Awwwards, 2017).    (Awwwards, 2017).  Above are screenshots showing the responsiveness of the website.  What is inspired me the most was the use of animation text to introduce to the user what the website was about.  For better optimisation of the website used inline scripts, styles and images (SVG, Data URI),  In analysing the performance of the pages of the theme I used **YSlow** to examine all the components of the page and loading times came out with an overall numeric GRADE of C.  Which means there is an opportunity to optimise the webpage for better results.  Below is a screenshot of the statistics:    **The page has a total of 33 HTTP requests and a total weight of 4800.1K bytes with empty cache**  The **Memory** Distribution by the page's JavaScript objects and related DOM nodes below:     1. The **Bjango** website SVG navigation:     (Bjango, 2017).  This website is very interactive and the SVG used on the website makes it stand out.  Rocheleau J. (2015). Points out that, “Each link including the logo is designed as an SVG. When hovering the links you’ll get a nice bounce effect coupled with a unique color”.  The website is responsive as depicted in the images below for across multiple screen sizes and resolutions.  .  (Bjango, 2017).  In analysing the performance of the pages of the theme I used **YSlow** to examine all the components of the page and loading times came out with an overall numeric GRADE of B.  Which still proves that the website still needs improvement for better performance  Below is a screenshot of the statistics:    The page has a total of 16 HTTP requests and a total weight of 475.8K bytes with empty cache  The **Memory** Distribution by the page's JavaScript objects and related DOM nodes below:    **Inspirations**:  Some inspiring Elastic SVG sidebar by **Nikolay Talanov** depicted below;    The arrows illustrated on the sidebars above are SVG’S and it aids users but prompting what need doing. According to (Hongkiat, 2017). “The sidebar becomes elastic when you try to pull it away from the side”. **Another example:**  Pull Down refresh by **Nikolay Talanov**   (Hongkiat, 2017). **Inspirations of Animations with JS:**    (SVG.js, 2017) | | |
| An initial time plan showing week numbers and activity. | |  |  |  | | --- | --- | --- | | Dates | Week | Description | |  | **1** |  | |  | **2** |  | | 25th-29th Sept 2017 | **3** | **Brief - 2**  **Planning:** Portfolio brief -2  Finding specific job roles with in my  Chosen portfolio Brief (SVG animations  For web)  **Researching** website with SVG  Animations. | | 2nd -6th Oct 2017 | **4** | **Brief - 2**  **Investigating**: other examples of  SVG graphics and exploring its purpose ,  Advantages and Disadvantages | | 9th – 13th Oct 2017 | **5** | **Brief - 2**  Researching other examples and  Professional work and tools.  And finding the purpose of using SVG  Animations in a responsive website. | | 16th – 20th Oct 2017 | **6** | **Brief - 2**  Learning some basic XML and  Researching how to use CSS and  JavaScript to Animate an SVG file. | | 23rd-27th Oct 2017 | **7** | **Brief - 2**  Deciding the weighting value and the  Amount of effort to be integrated in the  Portfolio piece. | | 30th Oct – 3rd Nov 2017 | **8** | **REFLECTION WEEK** | | 6th-10th Nov 2017 | **9** | **Brief - 2**  Putting together my brief for lecturers  Feedback | | 13th -17th Nov 2017 | **10** | **Brief – 2 feedback from Lecturer**  Tutor feedback was helpful and made me  Understand where I was going wrong | | 20th – 24th Nov 2017 | **11** | **Brief - 2**  I researched responsive websites that  Have SVG as backgrounds images,  Or may have text and icons.  I put together the information’s and  Knowledge acquired from the research.  Finding similar websites with SVG that are responsive.  Copying other professionals codes and  Practising to animate SVG on one of my  responsive websites. | | 27th Nov 1st Dec 2017 | **12** | **Brief - 2**  Restructuring the brief and making  Corrections and changes  Where necessary | | 4th – 8th Dec 2017 | **13** | **Brief - 2 feedback from Lecturer**  Necessary corrections made after  Feedback.  Using Google developer tool in analysing  Responsive Website with SVG, and  Making Comment.  Watching tutorials on Lynda.com on SVG  And its importance for WEB. | | 11th - 15th Dec 2017 | **14** | **Brief – 2**  **R**esearching experts in a similar area and  Analysing their work, with comments. | | 18th – 22nd Dec 2017 | **15** | Submitting brief.  **SUMMATIVE DEADLINE – 15th December** | | 25th - 29th Dec 2017 | **16** |  | |  |  |  | |  |  |  | |  |  |  | | | |
| What you would like to achieve overall? | As much as there are other drawing software’s that may be more convenient in creating SVG images such as Inkscape.  I would like to learn the hard way fist like animating in CSS or JavaScript.  I would be learning about Extensible Mark-up Language (XML)  **Personal development**:  Managing my time well, research more examples from professionals ask for assistance where necessary. Go onto github and see what others web developers have created.  **Challenges:**  Creating an SVG animation using CSS and JavaScript.  Creating responsive website.  **Benefits: (Achievements)**   * Knowledge and skills in creating illustrations on websites using SVG’s. * Creating responsive websites using CSS to animate SVG on a website. * Embedding SVG into html * Using JavaScript to animate SVG. * Using CSS to manipulate SVG.   **Achievements:**  I would be learning to animate SVG file with CSS.  SVG works within the XML environment. This means the XML language creates the picture. So I would be learning to create images using XML  **References:**  Awwwards. (2017). *Best Website Examples of SVG.* Available: <https://www.awwwards.com/sites/anna-eshwood-academy>. Last accessed 15th Dec 2017.  Bjango. (2017). *An advanced Mac monitor system for your menu bar. Available*: <https://bjango.com/>. Last accessed 15th Dec 2017.  Cousins C. (2017). An Introduction to Animation in Web Design. Available: <https://designshack.net/articles/graphics/an-introduction-to-animation-in-web-design/>. Last accessed 13th Dec 2017.  CSS-tricks. (2014). *#135: Three Ways to Animate SVG.* Available: <https://css-tricks.com/video-screencasts/135-three-ways-animate-svg/>. Last accessed 15th Dec 2017.  Chaize M. (2013). *Export SVG for the web with Illustrator CC.*Available: <http://creativedroplets.com/export-svg-for-the-web-with-illustrator-cc/>. Last accessed 14th Dec 2017.  CSS Nectar. (2017). *BEST EXAMPLES OF SVG WEBSITES.* Available: <https://cssnectar.com/css-gallery-inspiration/roc/>. Last accessed 15th Dec 2017.  Girard J. (2017). *Why You Should Be Using SVG on Your Website Today.* Available: <https://www.thoughtco.com/using-svg-in-web-design-3470014>. Last accessed 12th Dec 2017.  Green sock, Inc. (2017). *The new standard for HTML5* and JavaScript animation. Available: <https://greensock.com/gsap>. Last accessed 14th Dec 2017.  Hongkiat. (2017). *30 Awesome SVG Animation For Your Inspiration.*  Available: <https://www.hongkiat.com/blog/svg-animations/>  Last accessed 14th Dec 2017.  Rocheleau J. (2015). *Trends & Examples of SVG Animation in Web Design.* Available: <http://www.vandelaydesign.com/svg-animation-trends/>.  Last accessed 15th Dec 2017.  Ryan I. (2017). UP AND RUNNING WITH SVG*.* Available: <http://svgtutorial.com/why-should-you-use-svg/>. Last accessed 13th Dec 2017.  Soueidan S. (2015). *The State of SVG Animation.* Available: <https://www.sarasoueidan.com/blog/state-of-svg-animation/>. Last accessed 13th Dec 2017.  Snap.svg. (2017). *Why Snap.* Available: <http://snapsvg.io/about/>. Last accessed 13th Dec 2017.  Oberoi S. (2016). How to Design, Code, and Animate *SVGs. Available*: <https://medium.freecodecamp.org/a-guide-to-svg-on-web-c5932dadca03>. Last accessed 13th Dec 2017.  Rocheleau J. (2016). *Overview of SVG Animation Usage in Web Design.* Available: <https://envato.com/blog/svg-animation/>. Last accessed 14th Dec 2017  Salesseek. (2017). *Sales CRM software’s for Teams.* Available: <https://www.salesseek.com/>. Last accessed 15th Dec 2017.  Lucid Fusion. (2017). *ROC.* Available: <https://uk.roclivelifeloud.com/?country=GB>. Last accessed 15th Dec 2017.  SVG.js. (2017). *A lightweight library for manipulating and animating SVG.* Available: <http://svgjs.com/>. Last accessed 14th Dec 2017.  Stack exchange. (2017). *How do you animate SVG for the web*? Available: <https://graphicdesign.stackexchange.com/questions/68314/how-do-you-animate-svg-for-the-web>. Last accessed 13th Dec 2017.  W3schools. (2017). *SVG Tutorial.* Available: <https://www.w3schools.com/graphics/svg_intro.asp>. Last accessed 12th Dec 2017. | | |