



School of Computing and information Systems

PROGRAMME: BSC BUSINESS INTELLIGENCE AND DATA ANALYTICS

BSC COMPUTER SYSTEMS ENGINEERING

BSC APPLIED BUSINESS COMPUTING

BSC MOBILE & WEB TECHNOLOGIES

Web & Multimedia Development

Year 1

Semester 2

ASSIGNMENT

Hand out Date: 08 March 2024

Hand in Date: 14 May 2024

Total Marks: 100

Instructions to candidates

1. Candidates must attempt ALL questions.
2. You are to make your submission on turn-it-in. You may consult with your tutor/lecturer on how this will be done.
3. Your Assignment submission must have a cover page with full student details. The cover page will be provided to students when the Assignment is issued out. On the cover page, you will find an acknowledgement statement which must be signed by the student as proof of admission or affirmation of one's own work being submitted.
4. Ensure that you have an account on turn-it-in by going to www.turnitin.com. Use the credentials provided for your account, for accessing this system. If you do not have your turn-it-in account credentials get hold of the module tutor/lecturer as soon as possible.
5. Ensure that you have your GitHub account set up and that you have your assignment repository created, where you will upload your website files.

6. Any work with a plagiarism level above 30 % will not be marked. You are responsible for ensuring the plagiarism level detected in your work is within this level. Monitor the plagiarism rating of your work regularly.

If you share your solution with others, the chances of plagiarism rising above this level are high.

7. It is your responsibility to ensure that the Web & Multimedia Development module is in turn-it-in and that you can see it before the submission date, so you can submit your report on the module link/bin. Consult with your tutor/lecturer if this is not the case.
8. Save the file name using the following convention or format
surname_firstname_cohort_assignment code.docx or .pdf e.g.,
smith_david_april2022_A03.docx
9. Note that this assignment may be subject to change or amendment and that care shall be taken to ensure that any such amendment or change shall not prejudice or disadvantage you/the candidate/the student.

Learning Objectives and Outcomes of the Assignment

The Learning objective of the Assignment are as follows:

1. Understanding Web Development Fundamentals:

- Understand the basic principles of web development.
- Understand the role of HTML and CSS in web development.
- Differentiate between client-side and server-side technologies.

2. HTML Fundamentals:

- Create well-structured HTML documents using appropriate tags.
- Understand semantic HTML and its significance for accessibility and SEO.
- Incorporate multimedia elements such as images, audio, and video using HTML tags.

3. CSS Fundamentals:

- Apply CSS styles to HTML elements using inline, internal, and external stylesheets.
- Understand the box model and its implications for layout and design.
- Implement CSS selectors to target specific HTML elements for styling.

4. Responsive Web Design:

- Understand the concept of responsive web design and its importance in modern web development.
- Utilize CSS media queries to create responsive layouts that adapt to different screen sizes and devices.
- Implement flexible grids and responsive images to optimize content for various viewport sizes.

5. Accessibility and Usability:

- Understand the importance of usability and apply principles of user-centred design to enhance the user experience.

6. Cross-Browser Compatibility:

- Identify potential compatibility issues between different web browsers and versions.
- Implement strategies to ensure consistent rendering and functionality across various browsers and devices.

7. Project Development and Deployment:

- Plan, design, and develop a complete website using HTML and CSS.
- Deploy the website to a web hosting service and configure domain settings.
- Perform testing and debugging to ensure the website functions correctly across different environments.

This assignment has two Tasks, Sections 1 and 2. You must consult your Tutor to acquire clarifications for this assignment. You can also consult with the module leader.

Section A – Website Planning & Documentation [40 marks]

WARNER Bros Website Re-Design

As a student developer, your task is to plan, document, and develop a website for Warner Bros. To ensure a structured approach, you'll follow the Website Design Process outlined in **Chapter 3 of this module**. This process encompasses all elements necessary for successful website development. Your initial steps involve thorough planning, documentation, and implementation of design strategies tailored to Warner Bros needs. Through this process, you'll ensure the website meets all requirements and delivers an optimal user experience. The following diagram shows the stages that you need to follow to produce the required product.

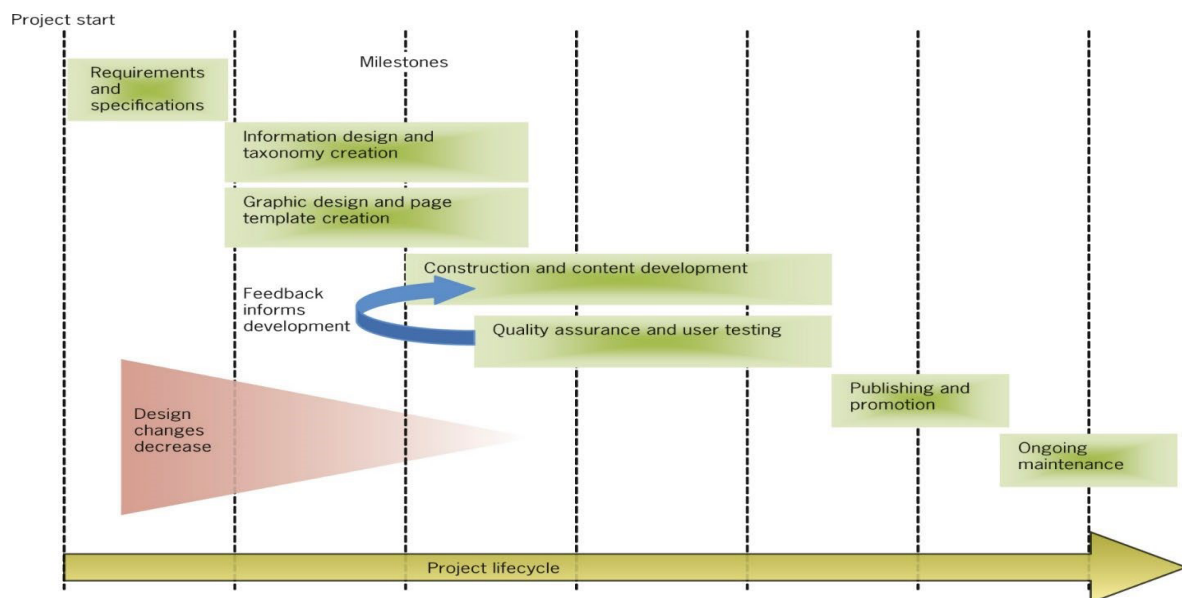


Figure 3-1 Web development project lifecycle

1. **Website Specifications:** [10 marks]
 - a. State the **objective, purpose** of the website and its **goals** for the business.
 - b. State the target audience, showing their demographics and technical aptitude.
 - c. You must identify the type of website or content you will be designing for the users.
2. **Information Design & Taxonomy:** [5 marks]

Your documentation should then provide the information architecture, showing how information is categorized and its navigation paths (i.e. **Site Map**) – all necessary page navigation across the website must be documented. Plan your site by creating a **storyboard flowchart**.
3. **Page Template Design:** [5 marks]

This part should focus on the page template design, showing how the final webpage for the website will look like. **REMEMBER** that **Wireframes** offer a more complete view of what the final design will look like.
4. **Technical Brief:** [5 marks]

You are to state any technologies you will use in developing this website and any other resources (software tools, graphics tools etc.). Remember to choose software tools that match the complex needs of your website.
5. **Quality Assurance:** [5 marks]

You are to provide detailed **Test samples** of your website. These shall include browser compatibility tests, mobile device tests. These should be in form of screenshots illustrating where the website was being tested.
6. **Publishing & Promotion:** [4 marks]

Indicate how your website is hosted, the tools and methods you used to host your website – this should encompass your GitHub commands and tools used to upload your website on GitHub Pages. Include the website link address on this part for reference.
7. **Future Developments/Recommendations:** [3 marks]

There are always ways to improve work – kindly use this part to demonstrate how you would improve the website in the future.
8. **Report Organization and Structure** [3 marks]

Guidelines for writing your report: A good and effective report presents and analyses facts and evidence relevant to the specific problem or issue of the report brief. The style of writing in a report is usually less discursive than in an essay, with a more direct and economic use of language. A well-written report will demonstrate your ability to:

- understand the purpose of the report brief and adhere to its specifications.
- gather, evaluate, and analyse relevant information.
- structure material in a logical and coherent order.
- present your report in a consistent manner according to the instructions of the report brief.
- make thoughtful and practical recommendations where required.
- The report word count must be **2000**.

GitHub Pages URL: Link to the hosted Warner Bros website on GitHub Pages for assessment. The copy of the website folder (together with necessary file *i.e.* images, css,js and bootstrap files): These must be submitted in your respective GitHub Repository that is named with your SCIS number e.g. FCSE19-001.

Section B – Website Design & development [60 marks]

Warner Bros. is a multifaceted media conglomerate known for its diverse entertainment offerings, spanning feature films, television, animations, digital distribution, video games, and more. Its subsidiaries include Warner Bros. Pictures, Warner Bros. Interactive Entertainment, Warner Bros. Television, Warner Bros. Animation, and others. The company's current website, hosted at <https://www.warnerbros.com> serves as a hub for movie trailers, news, classic clips, TV series, and video games. Additionally, it operates an online store offering a wide range of products, from movies to clothing, toys, home décor, and collectibles.

As part of an initiative to stay at the forefront of technology and web presence, Warner Bros. is undergoing a redesign and redevelopment of its website. Key features of the redesign include adherence to **W3C standards, utilization of HTML5, CSS3, JavaScript and Bootstrap, compatibility with various browsers and devices**, and a focus on multimedia content and page uniformity.

The revamped website will consist of at least five main pages: the index page, movies page, TV shows page, games & apps page, collections page, and a feedback page with an HTML form. Each of the pages dedicated to movies, TV shows, and games will feature information about at least one item from the respective category.

Creativity will be emphasized throughout the **redesign process** to ensure the website appeals to Warner Bros.'s target audience. This will involve the use of compelling graphics, imagery, and banners created with tools like GIMP to engage visitors and enhance their browsing experience.

Planning, Design and Development Documentation of Warner Bros Website

1. **Information Design and Taxonomy:** The first step in the development process involves organizing the content and structuring the information architecture of the website. This includes categorizing the content into logical groups and determining how it will be interconnected.

- a. **Site Map Design:** A visual representation of the website's structure, the site map outlines the hierarchy of pages and how they are linked together. It serves as a blueprint for the website's navigation and content organization.

Example Site Map:

- **Home**
- Index Page
- **Movies**
- Individual Movie Pages
- **TV Shows**
- Individual TV Show Pages
- **Games & Apps**
- Individual Game/App Pages
- **Collections**
- **Feedback**

2. **Graphics Design and Page Template Creation:** Once the information architecture is established, the next step is to design the look and feel of the website. This involves creating wireframes and visually designing page templates.

- a. **Wireframes:** Basic layouts of each page, wireframes outline the structure and placement of elements such as navigation menus, content sections, and multimedia objects. Use the **Figma tool** to design the website Wireframes.
- b. **Visual Designs:** of each page, page templates incorporate branding elements, colour schemes, typography, and imagery to create a cohesive and visually appealing interface using graphics software like GIMP.

3. Technical Brief:

With the design approved, the website is built using HTML5, CSS3, JavaScript and Bootstrap.

HTML5, CSS3, JavaScript, and Bootstrap are fundamental technologies used in website development. HTML5 provides the structure, CSS3 handles styling, and JavaScript adds interactivity. The Bootstrap framework simplifies development by offering pre-designed components like navigation bars, buttons, and more. To improve your website, incorporate Bootstrap to control elements such as **navigation bars, buttons, tables, cards, and carousels**. Bootstrap ensures consistency and responsiveness across different devices. Document your usage of Bootstrap as part of the comments to demonstrate understanding and customization.

4. Quality Assurance: Before the launch, the website undergoes rigorous testing to ensure functionality and compatibility across various browsers and devices.

5. Cross-Browser Compatibility Testing: Testing the website on different browsers (e.g., Chrome, Firefox, Safari) to identify and resolve any compatibility issues.

Example Testing Checklist:

- Ensure consistent layout and functionality across browsers
- Test on different devices (desktop, tablet, mobile) to verify responsiveness
- Check for proper rendering of multimedia content (images, videos)
- Validate HTML, CSS, and JavaScript code for errors

6. Publishing & Promotion: The website will be hosted using appropriate hosting services, and tools like GitHub will be utilized for version control and deployment. GitHub Pages will be used for hosting the website. Do not forget to include the link to your website on your Documentation.

Appendix A: Report Marking Guideline

| Criteria | Scale | | | | | |
|---|--|---|--|---|---|--|
| | Excellent | Very Good | Above Average | Average | Below Average | Poor |
| 1. Website Specifications: State the website objective, its goals in relation to the business. State the target audience, showing their demographics and technical aptitude. You must identify the type of website or content you will be designing for the users | 10 pts Included facts, quotes, and paraphrasing from reliable sources. Included research from subject-matter experts | 8 pts Included facts, quotes, and paraphrasing from reliable sources. | 6 pts Included a mixture of facts, quotes, and paraphrasing from reliable as well as unreliable sources. | 4 pts A report with very few facts, some paraphrasing with information from unreliable sources. | 2 pts Includes a few opinions, with a lot of information taken as is from unreliable sources. | 0 pts POOR to NO Introduction |

| | | | | | | |
|--|---|---|---|---|---|---|
| 2. Information Design & Taxonomy information architecture, showing how information is categorized and its navigation paths (i.e. Site Map) | 5 pts All page details are identified, Clear structure of pages with easy access to content. 3clicks rule maintained | 4 pts Some page details are identified, Clear structure of pages with easy access to content. 3clicks rule maintained | 3 pts Some page details are identified, Clear structure of pages with easy access to content. | 2 pts few page details are identified, a structure of pages with access to content. | 1 pts Very little page details, a structure of pages with access to content. | 0 pts A poor presentation of information |
| 3. Page Template Design page template design, showing how the final webpage for the website will look like. | 5 pts an excellent presentation design, indicating a very good placement of content on the page. Clearly define content sections with Active White space between elements. | 4 pts A very good presentation design, indicating a very good placement of content on the page. Clearly define content sections with Active White space | 3 pts A minimalistic and simple presentation design, indicating placement of content on the page. No clearly indication of content sections with little Active | 2 pts A very simple presentation design. No clear indication of content sections with little Active White space between elements. | 1 pts A very simple presentation design. No clear indication of content sections with NO Active White space between elements. | 0 pts A poor design or NOT Done |

| | | | | | | |
|--|---|---|---|--|---|--|
| | | between elements. | White space between elements. | | | |
| 4. Technical Brief state any technologies you will use in developing this website and any other resources (software tools, graphics tools etc) | 5 pts A detailed and insightful text describing the software tools, graphic tools and any other resources | 4 pts A very detailed and descriptive text of the software tools, graphic tools and any other resources | 3 pts A descriptive text of the software tools, graphic tools and any other resources needed to | 2 pts A brief text of the software tools, graphic tools and any other resources needed to complete the assignment | 1 pt A shallow listing of tools and resources without any description of what each is to be used for. | 0 pts A poor presentation of facts to the issue. |

| | | | | | | |
|--|---|--|--|---|---|---|
| | needed to complete the assignment | needed to complete the assignment | complete the assignment | | | |
| 5. Quality Assurance: detailed Test samples of your website. These shall include browser compatibility tests, mobile device tests. | 5 pts A very good illustration of test, with detailed descriptions of what each test was carried on, and variations, if any | 4 pts A very good illustration of test, with good descriptions of what each test was carried on, and variations if any | 3 pts A good illustration of test, with some descriptions of what each test was carried on, and variations, if any | 2 pts A simple illustration of test, with little descriptions of what each test was carried on, and variations if any | 1 pts An illustration of test, with narrow descriptions of what each test was carried on, and variations if any | 0 pts Poor Work or NO Work Done |
| 6. Publishing & Promotion Indicate how your website is hosted, the tools and methods you used to host your website – this should encompass your GitHub commands and tools used to upload your website on GitPages. | N/A | 4 pts Excellent use of the GitHub technology, with good use of the GIT commands to | 3 pts Some good use of the GitHub technology, with use of the GIT commands to monitor changes across the | 2 pts Evidence of use of the GitHub technology, with little use of the GIT commands to monitor changes | 1 pt use of the GitHub technology for submission, with little to no use of the GIT commands | 0 pts Poor Work or NO Work Done |

| | | | | | | |
|---|------------|---|---|---|--|---|
| | | monitor changes across the development of the website | development of the website | across the development of the website | | |
| 7. Future Developments/Recommendations demonstrate how you would improve the website in the future | N/A | N/A | 3 pts A very clear brief on how the website can be improved | 2 pts A clear brief on how the website can be improved | 1 pts A narrow brief on how the website can be improved | 0 pts Poor Work or NO Work Done |
| Writing Style (Report Organisation and Structure) | N/A | N/A | 3 pts A very good, structured material in a logical and coherent order a consistent presentation of the report according to the instructions of the report brief; | 2 pts A good structured material in a logical and coherent order a consistent presentation of the report according to the instructions of the report brief; | 1 pts A logical and coherent order An attempt to present the report according to the instructions of the report brief; | 0 pts Poor Work or NO Work Done |

Appendix B: Prototype Marking Guidelines

| | | | |
|--|----------------------------|-------------|-----------------|
| Student #: _____ | Full Name: _____ | | |
| Aspect | Max mark | Mark | Comments |
| A: Word Processed Report (marked from Assignment submission): Only one (1) file to be submitted | | | |
| Website Planning & Documentation //Transfer from Turnitin | 40 | | |
| B: The Website : Website files in GitHub Repository | | | |
| | | | |
| 1. HTML Structure (15 Marks): <ul style="list-style-type: none"> – Check Proper use of HTML5 semantic elements (e.g., `<header>`, `<nav>`, `<section>`, `<footer>`)</footer></section></nav></header> – Check Proper use of additional HTML elements (e.g., <code><article></code>, <code><aside></code>, <code><figure></code>, <code><figcaption></code>) – Check Clear and logical organization of content on web pages. – Valid HTML syntax with appropriate indentation. | 15 | | |
| | | | |
| 2. CSS Styling (10 Marks): <ul style="list-style-type: none"> - Consistent and visually appealing styling using CSS3. - Responsive design that adapts to different screen sizes. -Evaluate whether CSS styles are consistently applied throughout the website? -Check if the CSS styles are responsive and adapt well to different screen sizes and devices. - Ensure that the CSS styles adhere to accessibility standards, making the website usable for people with disabilities. | 10 | | |

| | | | |
|--|----|--|--|
| | | | |
| 3. JavaScript Interactivity (5 Marks): <ul style="list-style-type: none"> - Check the Implementation of interactive features using JavaScript. - Evaluate how JavaScript handles errors and provides feedback to users in case of invalid inputs or submission failures. -Check if JavaScript is used to validate form inputs on the client-side before submission. | 5 | | |
| | | | |
| 4.Bootstrap Integration (5 Marks): <ul style="list-style-type: none"> -Evaluate whether Bootstrap's components and styles are applied consistently (typography, colour scheme, spacing, and layout) across the website. -Ensure that Bootstrap's components and features are accessible to all users, including those with disabilities | 5 | | |
| | | | |
| 5. Content and Multimedia (10 Marks): <ul style="list-style-type: none"> - Check whether the content is Engaging and relevant content across the website - Check whether various multimedia elements are integrated into the website (e.g., images, videos) to enhance user experience. -Check Accessibility considerations for multimedia content. - Check consistency in the style, tone, and branding of content and multimedia elements across the website. | 10 | | |
| | | | |
| 6 Cross-Browser Compatibility (5 Marks): <ul style="list-style-type: none"> - Test the website on popular web browsers such as Google Chrome, Mozilla Firefox, Apple Safari, Microsoft Edge, and Opera for compatibility. -Assess how CSS styles are rendered across different browsers. -Evaluate the functionality of JavaScript code across different browsers | 5 | | |

| | | | |
|--|------------------|--|--|
| <ul style="list-style-type: none"> - Verify that HTML markup is interpreted consistently across browsers. - Ensure that the website layout adapts correctly to different viewport sizes and orientations. | | | |
| <p>7. Presentation (10 marks) Use the following Metrics to assess the Presentation:</p> <ul style="list-style-type: none"> -Assess the clarity and coherence of the presentation content. -Does the student demonstrate a deep understanding of the work they are presenting on? -Does the student speak clearly and confidently? - Evaluate the student's ability to manage time effectively during the presentation. -Did they respond thoughtfully and respectfully to questions? | <p>10</p> | | |

Appendix C: Assignment Submission Cover Sheet

| | |
|---------------------|-------------------------------------|
| Student Id: | <input type="text"/> |
| Student names: | <input type="text"/> |
| Student email: | <input type="text"/> |
| Cohort: | <input type="text"/> |
| Assignment title: | <input type="text"/> |
| Date of submission: | <input type="text"/> |
| Programme of Study: | <input type="text"/> |
| Year of Study: | <input type="text" value="YEAR 1"/> |

Intellectual property statement By checking the box below, I certify that this assignment is my work and is free from plagiarism. I understand that the assignment may be checked for plagiarism by electronic or other means and may be transferred and stored in a database for data-matching purposes to help detect plagiarism. The assignment was not submitted for assessment in any other unit or institution. **I have read and understood the Botswana Accountancy College plagiarism guidelines policy.**

☐ Agree

Signature.....

Date.....

----- End of Paper-----