PROGRAMME: BSC BUSINESS INTELLIGENCE AND DATA ANALYTICS

BSC COMPUTER SYSTEMS ENGINEERING

BSC APPLLIED BUSINESS COMPUTING

BSC MOBILE & WEB TECHNOLOGIES

Web & Multimedia Development	Year 1	Semester 2

ASSIGNMENT

Hand out Date: 22 March 2023   **Hand in Date: 24 May 2023**

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 or admission or affirmation of one own's 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.** It is your responsibility to make sure that the plagiarism level detected in your work is within this level. Monitor the plagiarism rating of your work on regular bases. If you share your solution with others, chances of the 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 able to 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.**

ASSIGNMENT SUBMISSION COVER SHEET

Student Id:

Student names:

Student email:

Cohort:

Assignment title:

WARNER BROS. WEBSITE REDESIGN & DEVELOPMENT

Date of submission:

Programme of Study:

Year of Study:

YEAR 1

Intellectual property statement

By checking the box below, I certify that this assignment is my own 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 the purposes of data-matching to help detect plagiarism. The assignment has not previously been submitted for assessment in any other unit or to any other institution. **I**

have read and understood the Botswana Accountancy College plagiarism guidelines policy.

☐ Agree   **Signature**……………………………………

                           Date………………………………………….

Objectives & Outcomes

This assignment has two Tasks, Section 1 and 2. You are required to consult with your Tutor in order to acquire any clarifications for this assignment. You can also consult with the module leader.

Aims/Objectives

This assignment is intended to:

- Give students some insights into the **Website Design Process**.
- Ensure that students understand and appreciate the strength and power of website planning and benchmarking through practical use
- Develop students' ability to apply CSS based designs for page layout

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 a movies theatre. You initial task is to follow the **Website Design Process** as defined in Chapter 3 of the module. You are required to ensure that all elements of the Website Development Process are defined. You are therefore required to follow the structure below;
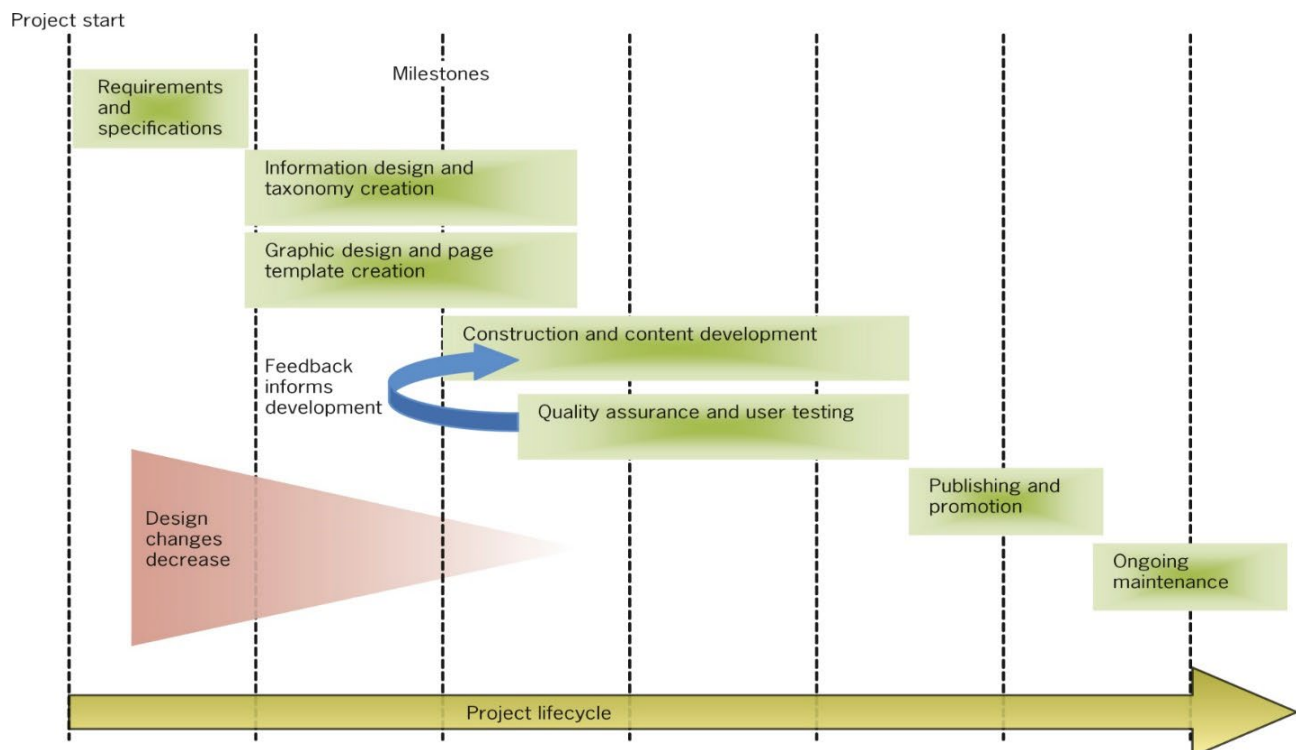

Figure 3-1 Web development project lifecycle

1. **Website Specifications:** [10 marks]
   a. State the website objective, its goals in relation to 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 complexity 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.

Report Writing is very key [3 marks]

Guidelines to writing your report: A good and effective report presents and analyses facts and evidence that are 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 analyze 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 **1,200**

Section B – Website Design & development [60 marks]

Warner Bros. is a media company that creates, produces, distributes, licenses, and markets of all forms of entertainment and their related businesses. The company specializes in various entertainment activities, including feature films, television, home entertainment and DVDs, animations, product and brand licensing, interactive entertainment, comic books, digital distribution, video games, international cinemas, and broadcasting. It also develops and produces musicals and other stage productions for the studio.

Warner Bros. has several subsidiary companies, including Warner Bros. Pictures, Warner Bros. Interactive Entertainment, Warner Bros. Television, Warner Bros. Animation, Warner Home Video, New Line Cinema, Castle Rock Entertainment, DC Entertainment.

The company's official website contains movie trailers, news, classic clips, TV series, and video games. Its online store sells movies, clothing, accessories, toys and games, home décor, collectibles, and more.

In the verge of the currents trends in technology and web presence, the company has taken a step to re-design and redevelop their current website which is hosted at https://www.warnerbros.com/.

As a web designer and developer, you have been tasked with the re-design and development of the current **Warner Bros.** website.

Below are a few key features that the website **must** have;

- adhere to the W3C standards
- support and use fully HTML 5, CSS3 and JavaScript
- display on a number of browsers like Opera, Mozilla Firefox, Google Chrome, Safari
- ability to display on mobile devices and multiple screen resolutions

- Good use of images and other multimedia objects.

- Page uniformity (consistent page display)

In general, the website must have at least five (5) pages *i.e.* a **welcome page*, movies page, tv shows page, games & apps page, collections page, feedback page (with HTML form).***

The pages movies, tv shows and games MUST have at least one (1) page that provides information about one (1) item from the set.

NB: You can add any other pages that you as the developer see fit.

You are required to be more creative to ensure the website appeals to the target audience. This will require you to create good graphics, imagery or banners to entice the website visitor. Use *Gimp* or any image editing software to create pictures.

Before you undertake the design and Development look at these issues;

Planning & Documentation

You are required to provide Documentation for the Planning, Design and Development of the website.

Documentation is used to visually plan the site while taking into account the purpose, audience and content, to design the site structure, content and interactions that are most suitable for the website. Documentation may be considered a prototype for the website – a model which allows the website layout to be reviewed, resulting in suggested changes, improvements and/or enhancements. This review process increases the likelihood of success of the website.

The first step may involve information design and taxonomy (**content planning**) in which the content is categorized and the information structure is formulated. The information structure is used to develop a document or visual diagram called a **site map (required)**. This creates a visual of how the web pages or content will be interconnected, and may help in deciding what content will be placed on what pages. The second step will involve graphics design and page template creation in order to craft the look and feel of the site starting with the wireframe and graphically designing the look and feel of the site using **GIMP** or any tool, before the construction and content development of the site. The third step will involve the construction and content development in which **HTML5**, **CSS3** and **JavaScript** will be used for coding the web pages and validation of the site. The last step will involve quality assurance in which you will test the website for cross-browser compatibility.

Your work for the website will be assessed using the criteria below:

- **Content:** Branging, Logo Designs and Motto **[15 marks]**
  - o Is content (images, flash animations and/or video) easily accessible/available,
  - o Structure of your content
  - o Remember: ***Content Builds – or breaks – trust***.
- **Structural Layer:** The Design layout / Page Layout and Theme **[15 marks]**
  - o Use of color and graphics
  - o Good use of HTML 5 tags with good semantics
  - o Smooth Transitions across multiple pages
- **Presentation Layer: [15 marks]** → Use of CSS3 to craft the look and feel in respect of the *wireframe*
  Your website must use **CSS3 based** design, consider development of a cross browser website (*i.e.* a website that will run on the mostly used browsers).
  - o Propoer use of CSS (use of external stylesheets and internal/inline where appropriate)
  - o Meaningful selector names
  - o Structure of the CSS
  - o Uniform design using CSS
  - o Good content placement, providing guidance to the user (Design for Location)
- **Behavioral Layer: [5 marks]** → Feedback form *******
  Using **HTML5 attributes** you are required to ensure that the form fields are validated before submission.

Submission Requirements

1) A MS Word processed Documentation Report containing;
   a. **Section A**– Website Planning Documentation
      ✓ The Website Planning phase
         i. Title and purpose of the website.
         ii. Information Design & Taxonomy
            1. Information structure (preferably the web structure)
            2. A **Site Map** showing how pages are related and the navigation across the website.
         iii. Graphics Design & page template creation
            1. Create a wireframe for the site
            2. Craft the look and feel of the site (page design using GIMP)
      ✓ Quality Assurance and Testing (offline mode)
         i. Cross-browser compatibility proof must be provided (a minimum of at least 3 browsers). *Students are expected to provide a brief note of*

browsers that they tested their website on, which will be verified by the Lecturer during presentations.

    ii. **Provide a URL link to the GitHub Pages website on your final document for viewing by the assessor.**
    e.g. https://kentsenaob.github.io/web-multimedia-dev/

    ✓ Conclusion & Improvements

b. The copy of the website folder (together with necessary file *i.e.* images): **[50 marks]** These must be submitted in your respective GitHub Repository that is named with your SCIS number e.g. ABC19-001.

    b. **Hint:** Make sure you put all the files within a repository named your SCIS number and test your site for any "**broken links**".

Use the criteria below for grading.

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** An very good presentation design, indicating a very good placement of content on the page. Clearly define content sections with **Active White** space between elements.	**3 pts** An minimalistic and simple presentation design, indicating placement of content on the page. No clearly indication of content sections with little **Active White** space between elements.	**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
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 monitor changes across the development of the website	**3 pts** Some good use of the GitHub technology, with use of the GIT commands to monitor changes across the development of the website	**2 pts** Evidence of use of the GitHub technology, with little use of the GIT commands to monitor changes across the development of the website	**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
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 Formatting)	**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

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**				
➔ Content: Branding, Logo Designs and Motto. **[15]**				
Is content (images, flash animations and/or video) easily accessible or available, *Where images are used, the alt, width and height shall be awarded [1 mark] each. [2 marks for provision of imagery and other multimedia.*		**10**		
Structure of the content, as well as content placement. **Design matching the one specified on the wire frame.**		**5**		
➔ Structural Layer: The Design layout / Page Layout and Theme **[15]**				
o Page Uniformity		**5**		
o Professional Page Design representing the audience. REMEMBER the requirement for a Movie Theater website		**5**		
o Navigation links (no broken links, consistent navigation design)		**5**		
➔ Presentation Layer: Use of CSS3 to craft the look and feel in respect of the wireframe **[15]**				
o Use of external CSS for layout control o Meaningful CSS selectors o CSS Structure		**5** **5** **5**		
Behavioural Layer: The form design, with all fields marked as required and validated using the **HTML 5** annotations.		**5**		
➔ Assignment Presentation **[10]**				
o 0 = Needs work. o 4 = Satisfactory. o 6 = Commendable. o 10 = Exceptional.4		**10**		

------End of Paper-

1 Website Specifications

When determining the specifications of this website, it was crucial for me to work with the already existing website i.e. https://www.warnerbros.com/ to determine how the requirements of the new website could be used to make improvements on what is already there. Afterall it's always good to start with what's already there.

Objectives & Goals – "**Warner Bros.** is a media company that creates, produces, distributes, licenses, and markets of all forms of entertainment and their related businesses". It aims to create a web presence for Warner Bros, while informing its audience of new content (movies, tv shows etc.) and offering web-based interaction with the audience (Sklar, 2014). The type of website suitable for the business and its audience is a billboard type website.

Target Audience, demographics, and technical aptitude – For this information I engaged web analytics to study the current users of the Warner Bros website to give me an idea of what I'm to work with. Generally, warner bros has an average of 1.7 million monthly users, with a bounce rate of above 67%, 2 pages per visit and an average of a minute spent on the website (https://www.similarweb.com/website/warnerbros.com/#traffic). Since I have an audience in a first world country, they have a high technical aptitude but of course I do have to take account the Botswana crowd.

A whopping 60% of the audience is male. More than 50% is in the age bin of 18 -34 (https://www.similarweb.com/website/warnerbros.com/#traffic). Furthermore, this type of user in interested in streaming and online tv, news and movies (https://www.similarweb.com/website/warnerbros.com/#interests). Geographically, almost half of warner bros target audience is in the United States, 5% India, followed by the UK, Botswana and Mexico (https://www.similarweb.com/website/warnerbros.com/#traffic).
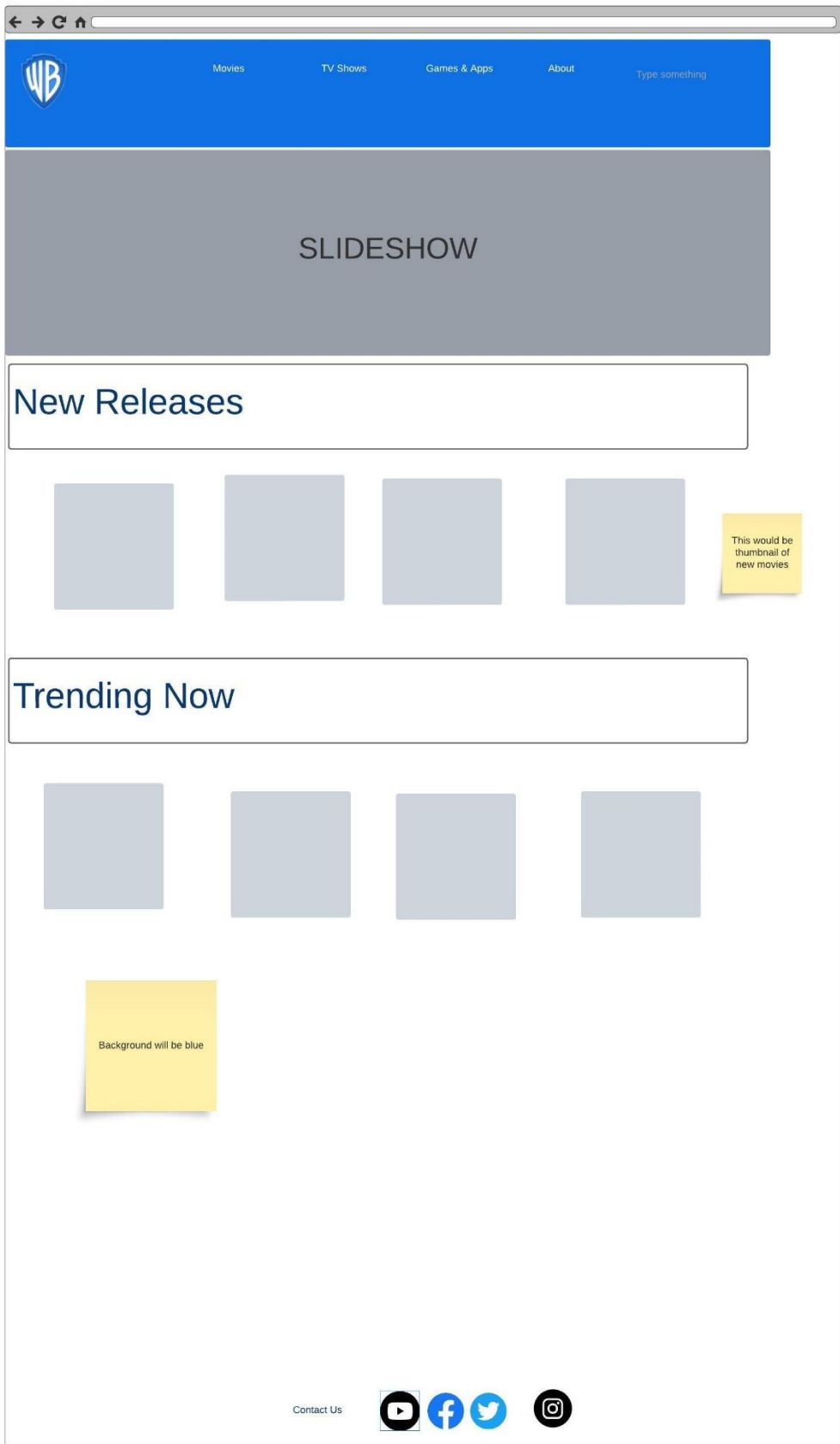
2 Information Design & Taxonomy

Site map
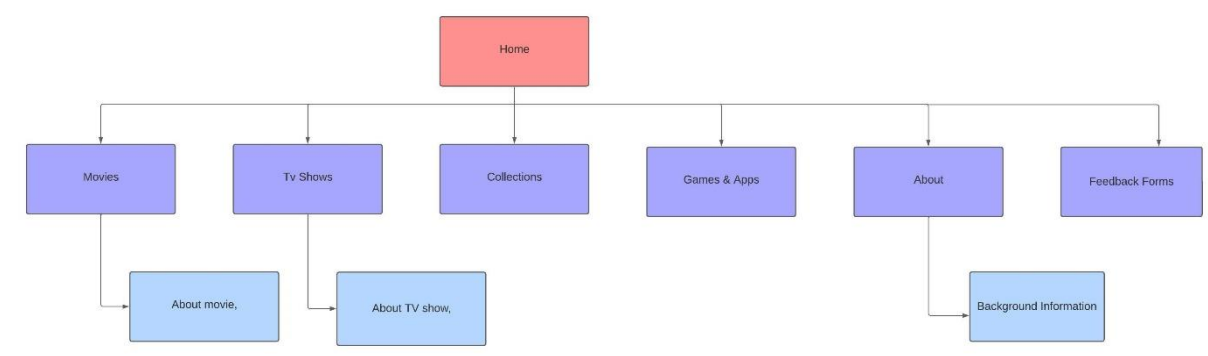
Taxonomy

For the taxonomy I didn't show the inner folders but summarized 9 folders with pictures because of space.

A hierarchical diagram showing the website folder structure:

- Warner Bros Website Folder
  - index.html
  - movies.html
  - tvshows.html
  - games/apps.html
  - collectables
  - about
  - oceans 8 info
  - prison break
  - slideshow1
  - slideshow2
  - slideshow3
  - slideshow4
  - CSS
  - images
    - 9 folders — Each folder has multiple picture
    - 10 pictures

3 Page Template Design

TECHNICAL BRIEF

To make this website I had to keep in mind that a very important factor that affects web design is the technical aspect of things. This includes different types of devices like laptops, tablets which differ in screen size and screen resolutions. It also considers different bandwidths for different users and lastly cache memory. All the above can determine the number of people that visit and make use of your website.

Different devices & resolutions

I used media queries to make the website flexible for different screens and devices. For an instance, the gallery is responsive because when the screen is smaller, it increases the number of columns and does not display inline. There are other ways to combat this like using a fixed design, where the designer designs for the most average screen size then it stretches out for bigger screens, but smaller screen users must scroll sideways. I would not recommend this approach because it affects the look and feel of the design.

Using Cache memory

Cache memory can be used to help those using low internet speed. This is because once the website loads from the cache memory it loads faster. This is very key because websites are usually not meant to be dwelt on by the user. Particularly billboards and galleries. The longer it takes for a website to load the quicker the user will click out and move to the next website. The question then is, how do we keep the users engaged for longer? We maintain consistency and limit the number of graphics we use on the website. By consistency we mean using the same graphics from page to page because then when these properties are loaded from page 1, the device would easily load them from page 2 internally. I consistently used the same theme for navigation, footer, and background to take advantage of cache memory.

Editing pictures

During the web development process, I used a lot of images, on every one of my pages, hence why I had to use gimp to enhance and edit pictures. I used gimp to resize my logo and refine it to improve the pixels from being cropped out. I figured that css has a lot of good resources that limited the amount of picture editing I had to do.

Downloading pictures

I downloaded my pictures mostly from google. I had good quality pictures for everything I was looking for. I also used snipping tools to take screenshots of good quality pictures.
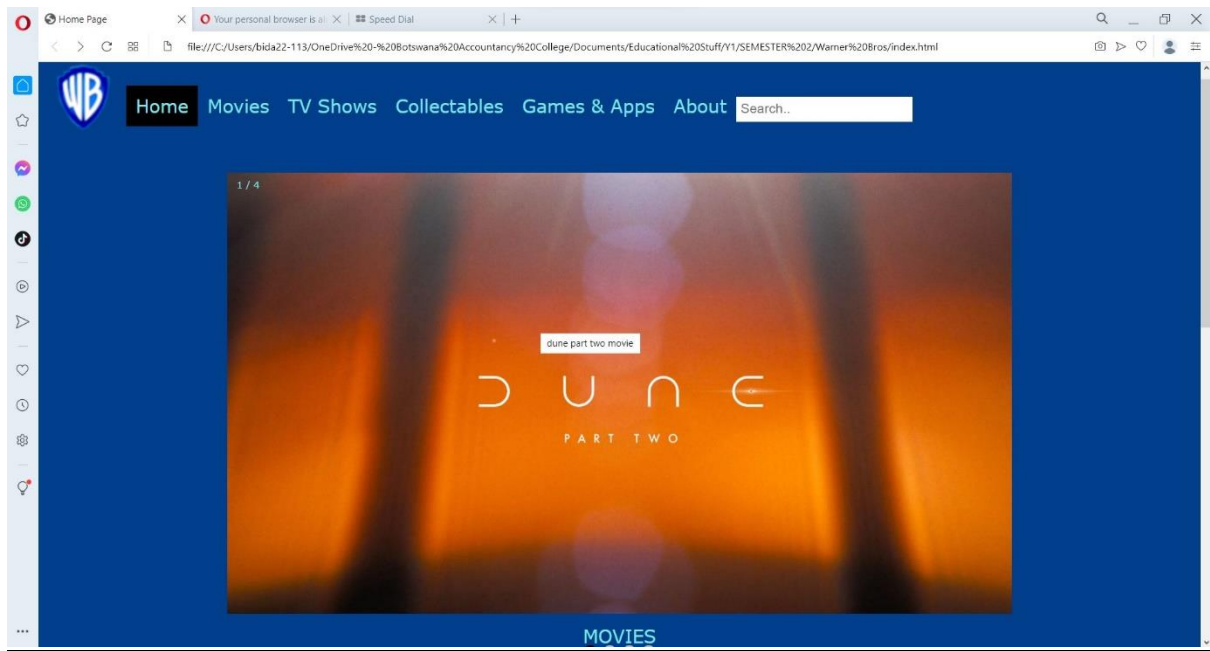
Validating code

I used the w3schools to validate my code. Both css and html.

Quality assurance

Tested website of three browsers. Chrome, edge, and opera. To mock a small screen, I simply reduced the tab or screen size. That allowed me to see how responsive the website is.
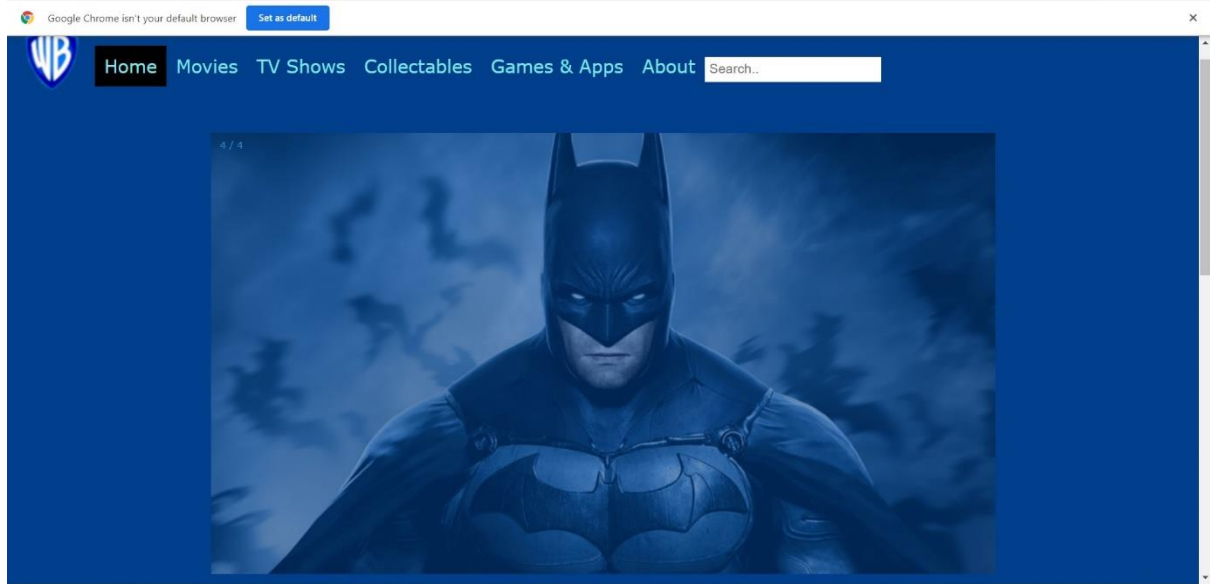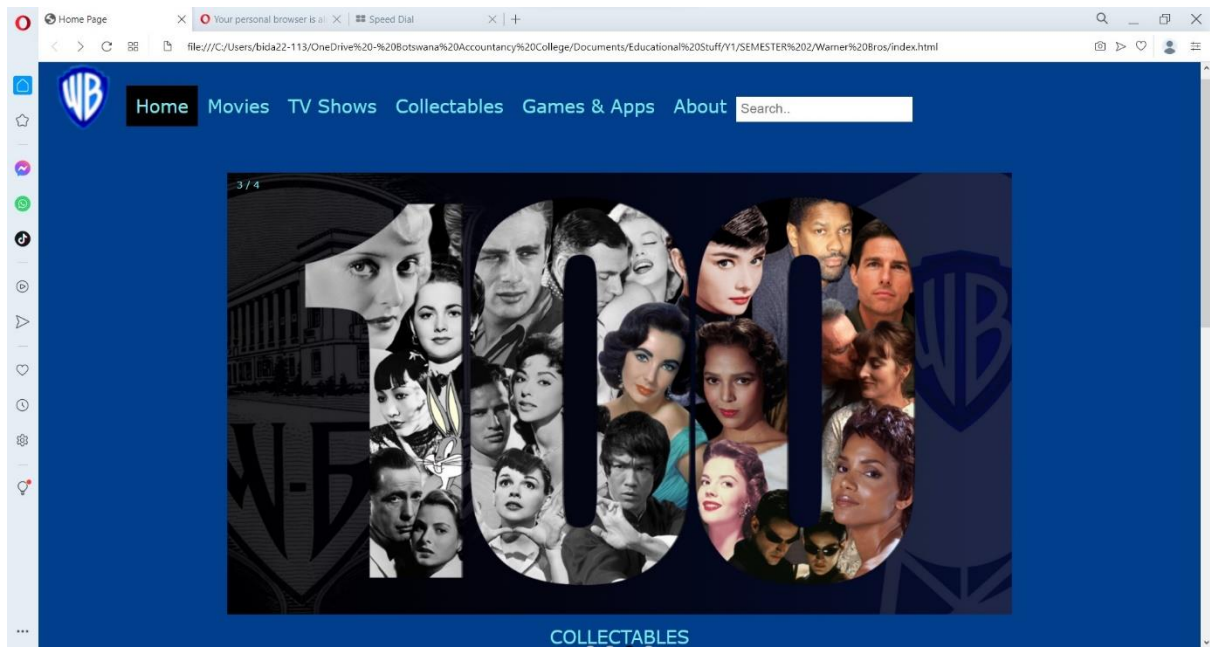
Future developments

I would use forms to help me understand the users better and to