School of Computing and Information Systems

BSC MOBILE & WEB TECHNOLOGIES

BSC COMPUTER SYSTEMS ENGINEERING

BSC APPLID BUSINESS COMPUTING

BSC BUSINESS INTELLIGENCE & DATA ANALYTICS

CIS122- Web & Multimedia Development Year 1   Semester 2

ASSIGNMENT

Hand Out Date: 05 Mar 2021

Hand-in Date: 28 May 2021

Total Marks: 100

Instructions to candidates

1. Candidates must attempt ALL questions.
2. You are to make your FINAL submission on turn-it-in. You may consult with your tutor/lecturer on how this will be done.
3. Ensure that you have an account on turn-it-in by going to www.turnitin.com. Use the credentials provided for accessing this system. If you do not have them, get hold of the tutor/lecturer as soon as possible.
4. Any work with plagiarism level above 30 % will not be marked. It is your responsibility to make sure that your plagiarism level is within this level. Monitor it on regular basis. If your share your solution with others, chances of the plagiarism rising above this level are high.
5. It is your responsibility to ensure that you have **WMD** module in turn-it-in before submission date and you do not drop the module. Consult with your tutor/lecturer if this is not the case.

Chatbots Technologies

Chatbots are not a recent development. They are simulations that can understand human language, process it and interact back with humans while performing specific tasks. Today, almost all companies have chatbots to engage their users and serve customers by catering to their queries. As per a report by Gartner, Chatbots will be handling 85% of the customer service interactions by the year 2020. Also, 80% of businesses are expected to have some sort of chatbot automation by 2020 (Outgrow, 2018). We practically will have chatbots everywhere, but this doesn't necessarily mean that all will be well-functioning.

Your Task

Your task is to write a brief research report discussing the ChatBot technologies and how they benefit companies in doing business. Your report should provide some good and insightful information about what Chatbots are; any types as well as the importance of chatbots to business operations. The report should follow a structure as depicted below;

Report Structure

  i.   Introduction
 ii.   What are Chatbots
iii.   Benefits of ChatBots for Business
 iv.   Types of ChatBots
  v.   The Future of ChatBots
 vi.   Recommendations & Conclusions
vii.   References

Guidelines

A good and effective report presents and analyses facts and evidence that are relevant to the specific problem or issue of the report brief. All sources used should be acknowledged and referenced throughout, in accordance with the Harvard Referencing Style. 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 appropriate conclusions that are supported by the evidence and analysis of the report;
- make thoughtful and practical recommendations where required
- The report word count must be **1,200**

Section B – Website Design & development [50 marks]

You are to create a website that provides information about a specific city anywhere in the world. You must make the city you select very evident in your webpage. You must include pictures and at least ten facts about your city. Some items you might include are: city/state name, population, tourist attractions, restaurants, things to do in that city, etc. Your task is to plan, design, develop, document and deliver a working website with no broken links. 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 5 pages *i.e. **index.html, about.html, lifestyle.html, contacts.html, feedback.html***

1. **The Index Page**: must be the home, the introductory page that welcomes the user/visitor to the website, and *must* have links to other pages and resources.
2. **The About Page**: which will provide a detailed information about the **City**, its history, facts, attractions and other relevant information to provide a generic understanding of the city.
3. **The Lifestyle Page**: shall list, depict and show sets and/or categories of tourist attraction sites and places. In here, the page showcases fashion and lifestyle issues. This page must include relevant imagery, photography and other multimedia objects that you deem relevant.
4. **The Events Page:** which shall display the past and upcoming events that are scheduled to occur in the precinct.

5. **The Connect With Us Page:** which shall allow website visitors to sign up for weekly newsletter of their choice so they can get the latest updates from the City and its agencies by subscribing to the newsletter(s) of their choice. The minimum requirements for this page is it shall give select options for users to choose which type of newsletter they want to subscribe for, their email, first name, last name, country and region. This form shall then be submitted, and upon submission, the form should take the visitor to a *thankyou.html* page that only display a thank you message (REMEMBER – this file has to exist).

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** 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 **[10 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 How you are going to structure you page layout, the **wireframe (**required**)**
    - o How you are going to use the wireframe to create the look and feel of the website, the index/homepage design (using GIMP)*******
    - o The navigational structure of the website, hence the production of a **site map** is mandatory.
    - o Use of color and graphics
- **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
- **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. A detailed report for the Research Report (*see* Task 1) **[35 marks]**
    b. Task 2 – Website Documentation **[15 marks]**
        a. 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)

3. An *.xcf* (GIMP format) file for the page design must be submitted with website (in the GitHub repository),   the marks for the page design will be lost

c. 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.*

d. Conclusion & Improvements **[5 marks]**

   a. **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/

2) 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.

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

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Use the criteria below for grading.

Criteria	Scale					
	Excellent	**Very Good**	**Above Average**	**Average**	**Below Average**	**Poor**
Research Quality [11 pts] Information from reputable sources	**11 pts** Included facts, quotes, and paraphrasing from reliable sources. Included research from subject-matter experts	**9 pts** Included facts, quotes, and paraphrasing from reliable sources.	**5 pts** Included a mixture of facts, quotes, and paraphrasing from reliable as well as unreliable sources.	**3 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**
Writing of Ideas [5 pts] Interesting, and informative details	**5 pts** All details are unique, interesting, and related to and supported the research. Writing included information based on facts.	**4 pts** The write up has many interesting details which support the research topic ideas with some interesting information on ChatBots.	**3 pts** Writing has enough details that support the topic on ChatBots with clear picture of Chatbot discussion	**2 pts** The report has few details that support the research topic or main area (ie. Chatbots)	**1 pts** Very few details that support the research.	**0 pts** A poor presentation of facts to the area.
Content Creativity [5 pts] A unique critical discussion on the subject matter.	**5 pts** The report demonstrates student's own interpretation and impression on the subject matter. Used good supporting pictures, imagery or other visual ideas to display information	**4 pts** A very good report depicting use of student-created materials, opinions and interpretations based on information from reliable sources.	**3 pts** A good factual narrative but with little demonstration of student's interpretation.	**2 pts** A simple narrative with very little student's opinions. Only based on already existing facts by reliable sources	**1 pts** Short and brief explanations of facts with no creativity, and with no interpretation of facts by student	**0 pts** A poor presentation of facts to the area.
Critical Thinking Conclusions [4 pts] make appropriate conclusions that are supported by the evidence and analysis of the report;	**4 pts** appropriate conclusions and recommendations that are supported by good evidence and analysis of the report;	**3 pts** appropriate conclusions that are supported by some evidence in the report;	**2 pts** appropriate conclusions that are supported by very little evidence in the report;	**1 pt** Conclusions only loosely follow from arguments and evidence presented.	**N/A**	**0 pts** A poor presentation of facts to the issue.
Design-Layout & Organization [3pts] •structure material in a logical and coherent order;	**3 pts** A very good structured material in a logical and coherent order a consistent presentation of the	**2 pts** A good structured material in a logical and coherent order	**1 pts** A logical and coherent order An attempt to present the report according to the	**N/A**	**N/A**	**0 pts** Poor Work or NO Work Done

•present your report in a consistent manner according to the instructions of the report brief;	report according to the instructions of the report brief;	a consistent presentation of the report according to the instructions of the report brief;	instructions of the report brief;			
References: [7 pts] use of the Harvard Referencing Style. All Reference List items must be all cited within the write up of the report. This is a combination of the marks for Referencing on both Part A and Part B.	**7 pts** Excellent use of the Harvard Referencing Style. All Reference List must be all cited within the write up of the report. This is a combination of the marks for Referencing on both Part A and Part B.	**5 pts** Very good use of the Harvard Referencing Style. All Reference List must be cited within the write up of the report. This is a combination of the marks for Referencing on both Part A and Part B.	**3 pts** Shows some good use of the Harvard Referencing Style. All Reference List must be cited within the write up of the report. This is a combination of the marks for Referencing on both Part A and Part B.	**2 pts** Shows some good use of the Harvard Referencing Style. Where NOT all Reference List items must be all used within the write up of the report. This is a combination of the marks for Referencing on both Part A and Part B.	**1 pts** Provides only a list of references with no proper citation of the listed references. This is a combination of the marks for Referencing on both Part A and Part B.	**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**			
Depth/breadth of research, bibliography, sources with evidence of research and correct use of references. **//Transfer from Turnitin**	**35**		
➔ Project Documentation **[15]**			
The Website Planning phase. o A visual plan for the website taking into account the purpose, audience and content (***Wireframe***) with clear content sections. *At least [5] content sections required, each [2 marks]* o Design of the site structure, content and interactions that are most suitable for the website. **Site Map** **//Transfer from Turnitin**	**10** **5**		
Testing, Conclusions and Improvements of the website **//Transfer from Turnitin**	**5**		
B: The Website : **Website files in \\Sechaba**			
➔ Content: Branding, Logo Designs and Motto. **[10]**			
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.* Structure of the content, as well as content placement. **Design matching the one specified on the wire frame.**	**5** **5**		
➔ Structural Layer: The Design layout / Page Layout and Theme **[15]**			
o Page Uniformity o Professional Page Design representing the audience. REMEMBER the requirement for a City website o Navigation links (no broken links, consistent navigation design)	**5** **5** **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**		

------End of Paper-