

CSE211 Web Programming

Assignment #1: Websites conceptual Design and mock-up

Submission Date: During Week 6 Lab (Monday, November 4, 2024)

1. Instructions

- The total number of pages if this file is 6 pages.
- Students complete the assignment in order.
- All students must have a GitHub account.
- Each student **MUST** prepare the homework solution and write it up as a report **BEFORE ARRIVING WEEK 6 LAB**. Your write-up includes the answer of all questions in Section 2. **HANDWRITTEN** scans for your write-up **ARE NOT ACCEPTED**.
- Each student must finish the assignment during week 6 lab and post the solution and the pre-prepared report to GitHub.
- Failure to attend week 6 lab and complete the assignment will result in a **ZERO** in this assignment.
- The **written report** should be prepared in accordance with the guidelines in Section 5.
- The report must contain the following:
 - **Assignment** title page.
 - Core idea of the assignment in **your own wording**.
 - The solution to all steps in Section 2.
 - **Conclusion and opinion**.

2. Assignment description and requirements

2.1. Introduction

Since its inception, the World Wide Web (just Web) has revolutionized the way people organize, communicate, and collaborate. **W3C** - World Wide Web Consortium - releases documents that define Web technologies that are used to create, develop, and test web applications. These documents are considered blueprints for how developers implement browsers, blogs, graphic editors, search engines, and build rich interactive experiences that can be offered on any device. W3C categorized web technologies into revolutions based on enabler technologies, **from web 2.0 to web 4.0**. Web 1.0 as brochure visibility, Web 2.0 as a web of people connections, Web 3.0 as a web of knowledge connections, and web 4.0 as a web of intelligence connections.

Regardless of the technology or revolution, the creation of websites and online apps must begin with the online design phase. This phase is about establishing and managing websites/web apps to express its message while simultaneously engaging the visitor, building trust, and guiding visitors to interact. There are numerous design features and elements that determine to what extent a website satisfies the expectations of its clients, successfully provides usability attributes, and achieves its desired aim. To standardize the Web design process, web designers applied Gestalt Psychology theory to create the Gestalt Theory on Web Design and created Gestalt Web Design Principles, which are now used as a framework. Aside from the aesthetic and functional features, web designers must consider the website organization and page layout to ensure that it meets the technical performance standards. After the design aspects are completed, developers create the front-end and back

end components and functionalities, launch and test a pilot test version, and finally publish the go-live version.

2.2. Assignment Description

The goal of this assignment is for you to review the basics of WW, learn to plan, design and start building a business website for a topic of interest or for a fictitious firm.

This assignment has three parts, each is outlined below.

Part 1: research

This is a research part in which you present a background, main characteristics, and technologies for the progression of the web from web 2.0 to web 4.0. (see lectures 1-3)

Part 2: website planning

In part two, it is required to prepare a **Website Planning Analysis Sheet**. (see lectures 3)

Part 2: website design

This section requires you to apply **Web design** concepts and complete the design of your proposed website. (see lectures 4 & 5)

2.3. Assignment requirements and questions:

2.3.1. Part 1: research

It is necessary to write a paper **of not less than 400 words** demonstrating your research talents around Web evolution from Web 2.0 to Web 4.0. The written report should be prepared in accordance with the guidelines in Section 5.

This report must include the following:

- 1- The defining characteristics of Web 2.0 to Web 4.0.
- 2- What are the key features of Web 2.0 and how it empowers the power of networks.
- 3- What are the key features of Web 3.0 and how it empowers the meaning of data and knowledge connections.
- 4- What are the key features of Web 4.0 and how it empowers the intelligence connections.
- 5- The importance of collective intelligence, social networking, social media and social bookmarking.
- 6- How these technologies empower the current and future business plans.
- 7- How do you intend to use the latest technologies in your profession?

2.3.2. Part 2: website planning

Answer the following questions and add them to the report.

- 1- Define the purpose of your intended website; it might be about a favorite hobby or subject, family business, a church, a mosque or club, a company etc.
- 2- What would you like the website to accomplish?
- 3- Who is your intended audience?
- 4- What opportunities, problems, or issues does your planned website address?
- 5- What kind of content could be incorporated on your website?
- 6- How will the site serve the client?
- 7- What's the best method for the user to do what's wanted?
- 8- How will users find the function?

- 9- How will the results of the function be received?
- 10- What will the receiver do with the received entries?
- 11- How will the receiver deal with results?
- 12- What follow up will be needed?
- 13- List at least two related or similar sites found on the Web. Explain why you chose them
- 14- Prepare the Planning Analysis Sheet that includes the following
 - a. Website Goal.
 - b. List the working title of seven to eleven pages on your website, excluding the home page.
 - c. Describe the contents (facts, text, pictures, audio, video, user inputs, etc.) of each page, including the homepage.
 - d. Describe how users will use forms to collect information—examples of using a form could be to offer registration, comments, conduct a survey or poll, offer subscriptions to a newsletter, etc.
 - e. Using a pencil, construct a flowchart (storyboard/website organization) for your proposed website that displays the hierarchy of pages and the relationships between the pages.
 - f. Create a wireframe for each page of your website using any computer tool. Make sure the logo, navigation, content, and footer regions are apparent. Save the produced wireframes as jpg or gif files.

2.3.3. Part 2: website design

Include the answer of the following to the report

[A] Use Gestalt Web Design Principles to describe how you will implement the following in each page of your proposed website:

- 1- Law of PRÄGNANZ (good figure, law of simplicity).
- 2- Closure (link individual elements to form a pattern).
- 3- Symmetry and Order (effectively communicate information quickly).
- 4- Figure/Ground (relationship between positive elements and negative space).
- 5- Uniform Connectedness (relationship between the elements).
- 6- Common Region (connection between elements).
- 7- Proximity (utilizing empty space to create the relationship).
- 8- Continuation (continuous perception of shapes).
- 9- Common Fate (SYNCHRONY) (items moving or changing together perceived as being related).
- 10- Parallelism (parallel elements are seen more related).
- 11- Similarity (elements with similar characteristics are more related).
- 12- Past Experience (observer's past experience).

[B] Deployment of other design concepts

- 1- Screen Resolution.
- 2- Pick a color palette using Adobe Color Wheel CC or Paletton. take a screen shot, and include it in your submission.

- 3- Set the minimum contrast accepted for accessibility.
- 4- Front-end development technologies.
- 5- Content Management Systems (CMS).
- 6- Back-end development technologies.
- 7- Metrics you are planning to use for measuring your website performance.
- 8- HTML5 page structure for every page on your website.

Method and significance of the assessment

- This coursework accounts for **5%** of the whole course mark and is done **INDIVIDUALLY**.
- This assessment will demonstrate progression of the student's academic ability and is used to measure students' achievement intended learning outcomes (ILOs) [3.a.1, 3.a.2, 3.a.3, 3.b.1, 3.c.1, 3.c.3 and 3.d.1].
- The marks will be awarded pro-rata, depending on the offered details, evidence of academic and technical talents, professionalism of the written content, information organization, and discussion skills.
- A **40%** reduction will be applied for each individual element if evidence of thoroughness is not adequate.
- If the student appears to be performing it right but makes a mistake, they will receive a maximum of 70% for any of the separate elements.

Marking schema:

- **30%** of the mark for the report as described in Sections [1 and 2], including evidence of the presented knowledge, topic understanding, completeness of the information, and the contribution of the student.
- **60%** of the mark for providing the solution of all questions.
- **10%** of the mark for posting the report and the PLAGIARISM REPOR on GitHub.

Report (paper) Format:

Report must follow the following;

- **be word-processed,**
- a report format standard,
- use correct paragraphing, formal grammar, **tenses,** and **spelling,**
- be submitted on **A4,**
- The title page includes the Assignment title **< CSE211 Web Programming, Fall Semester 24/25 >** on the first line, **<Assignment #1: Websites conceptual Design and mock-up>** on the second line, and **<Student ID, Full Name>** on the third line. Use double line space, centered contents and without page numbering.
- **All other pages are 1.5 line spaced,**
- **use 12-point Arial font size for normal text,**
- **use 12-point Arial font size, bolded for headings,**
- have page numbers centered on the bottom of each page in the format **<Page X of Y> ,**
- **section headings are the same as the assignment parts.**

Referencing and Bibliography

- The IEEE Referencing System will be used,
- A conventional and complete Bibliography/Reference List using the IEEE Referencing System will be included,
- You are allowed to use websites; however, you must declare it clearly in your report.

6. Plagiarism and Academic Honesty

- INTEGRITY and COLLABORATION: Student are encouraged to discuss issues related to the assignment with other students, but genuine collaboration on all or part of the assignment must be explicitly acknowledged, or he/she will be penalized.
- PLAGIARISM is strictly prohibited and may result in failure in this course.
- This is an exercise, so submit your own work. If you submit material that is not entirely your own, you must state this clearly in your submission.
- A PLAGIARISM REPORT is required for the submitted report. A similarity ratio of greater than 40% is not acceptable.
- ASK Teaching Staff If you have any queries or are confused whether specific activities constitute dishonesty. It's better to be safe than sorry.

7. Feedback given to students in response to assessed work.

- Specific oral feedback on the assessed components.
- The written component will be assessed directly through annotations on the page.
- Feedback for the HTML part will be placed on the coursework assessment sheet returned with the coursework mark.
- During contact hours, students will receive oral generic comments on every part of their assignment.
- If students need more input, they are encouraged to speak with the teaching staff.

8. Deliverables

- The whole assignment (report, references, and drawings) will be submitted on GitHub during week 6 lab.
 - All files MUST be named as follow: <StudentID_StudentFirstName_FileName>
 - Put your name, and ID at the top of each file.
- Late submission, if there is a solid reason, is permissible during the next day subject to the arrangement with the teaching staff, however you will lose 50% of the coursework mark.
- more than 48 hours delay is not accepted, and you will get ZERO in this assignment.