

Web Based Programming Assignment 2 Briefing

Team Based Project

- A team with either 4 or 5 members
- Teamwork is one of the most efficient ways to solve problems and tackle big tasks in any environment and often the experience is highly rewarding.
- To avoid the potential problems, we recommend that once you know your team, explore strengths of each person and allocate tasks accordingly.
- Each team should have a team leader or coordinator. This role can be taken by one person or take turns.
- To make the most out of this experience, members of the team should have their own responsibilities with a defined role

Project Requirements

- A set of minimum requirements (frontend/client and backend/server)
- A set of desirable requirements (attract more marks)

Beyond the specification all other design decisions are your own – and marks will be awarded accordingly.

Basic Requirements

- The use of HTML5 in all web pages:
 - HTML5 semantic mark-up should be used on all web pages
 - HTML5 Form validation should be implemented
 - Three form fields are required: first name, last name and email address. The comment field is optional.
 - All web pages should be validated

You will be penalised if you use : `<div id='main'>`, `<div id='header'>`, `<div id='footer'>` or something similar for this assignment.

These can be easily replaced by HTML5 semantic markups. If you do not know what are HTML5 semantic markups then please revise lecture notes – week 1 and 2.

Basic Requirements

- The use of CSS3 in all web pages:
 - Should be implemented in an external file (named as “style.css”)
 - Appropriate colour scheme should be used
 - Graphics, diagrams and images should be displayed appropriately
 - All CSS files should be validated
- You will be penalised for using more than one CSS files without giving reasonable justifications
- You will be penalised for using CSS styles found on the Web including those “templates” created by someone else
- There are a few exceptions: You can use UI libraries e.g. Bootstrap, JQuery UI, Vue, webcomponents.org, Patternfly etc are ALL acceptable.

Basic Requirements

- The use of JavaScript in web pages:
 - Should be implemented as an external file (named as “wp.js”)
 - At least one mouse click event should be implemented
 - Should be able to capture the form data

If you wish to use JQuery library for frontend development is acceptable. Your script must be named as ‘wp.js’

Basic Requirements

- Backend requirements:
 - The backend server must be based on Node JS JavaScript run time environment. The server should be implemented on a local machine and can be accessed via localhost (e.g. on localhost port 3000 although you can run it on a different port if you wish).
 - Server using other programming languages are not acceptable. Be aware - You will receive 0 mark.
- The minimum requirements of the server are:
 - Should be able to receive the form data (i.e. after user clicks the “Submit” button on the sign-up form)
 - Foreign data should be handled with care upon receiving
 - The form data should be rendered in JSON format
 - The data should be stored in the local file system on the server
 - An acknowledgment of receiving the form data should be sent back to the client/frontend and be rendered on a webpage (i.e. acknowledged whether the data has been successfully received)
 - Use Express framework to serve the routes (i.e. routing with appropriate HTTP methods)

Desirable Requirements

- Extra marks will be awarded for:
 - Serving of webpages using REST/Express routes by EITHER
 - rendering static HTML pages OR
 - rendering using web templates such as pug. Note that the use of pug is not covered in the lectures. You will need to refer to online documentation to learn how to use it – a useful skill in programming!
 - Sending email to the user after they submit the form, to confirm successful sign-up.
 - Responsive design

Deliverables

- Electronic submission to Blackboard, due date: Monday 9th December 2019, time: 15:00
 - A zip archive containing all files (HTML, CSS, JavaScript including Node JS, any images and the PDF file, an A4 page listing names and student number of each member of the team together with a single site guide) must be submitted by each group (only one person needs to submit per group).
 - The zip file should be named as: group_<ID>_wbp.zip (where <ID> is your group ID, you can find this in the team allocation document).
 - Archive formats other than zip will not be accepted.
 - You will be penalised if this is not submitted or is submitted late.
 - Failure to submit on time may deny you as a team the chance to participate in the demo session scheduled on the 10th December.

Deliverables

- Compulsory demo: The implementation of the Web application
 - When: week 12, Tuesday, 10th December
 - Time allowed: 15 minutes plus 5 minutes Q&A (exact time slot to be advised)
 - The demonstration should show your application includes the core features and highlight any advanced features that you have included.
 - Each team member should present their part of the work.
 - You may be questioned on your code and will be asked to show that a randomly selected web page validates.

Deliverables

- The use of Trello online project management system
 - When: week 12, Tuesday, 10th December
 - The team will be assessed on how the project has been documented using the Trello system. Dr Jeannette Chin (email: j.chin@uea.ac.uk), Dr Dan Smith (email: dan.smith@uea.ac.uk) and Dr Han Gong (email: h.gong@uea.ac.uk) must be invited to your Trello system.

Team question

- Can I swap or choose my team?
 - YES.
 - As many of you have requested and in the spirit of working collaboratively and maximising this learning experience, you can swap or choose your own team
 - Rules:
 - A team should have 4 people, no more or no less.
 - You will notify me by sending me an email (j.chin@uea.ac.uk) with the following information **BEFORE Tuesday 12 November 15:00**: the student IDs, names and email addresses of the members of your team.
 - If I do not hear from you by Tuesday 12 November, you will be allocated to a team randomly according to the lab group you are assigned to.
- Swapping will not be allowed after Tuesday 12 November 15:00

- Will everyone in the team receive a same mark?

Team question

- YES or NO.
 - Every team will receive a group mark for their project via week 12 demo
 - Individual team members will receive their mark, which is calculated using the formula: $\text{group mark} * \text{ratio}$, where the ratio is determined by the individual's engagement and contributions to the project rated by their own team members.
 - Each team member will participate a voting system in week 12
 - Each team member will have an opportunity to say about their peers via this online voting system.
 - The vote will contribute to how the ratio is calculated.
 - The online voting system will be opened in week 12 for a limited time only, so please stay tuned!
- **WARNING:** Failure to participate in this voting system will result in the ratio being capped at 50% for that person.
- There will a bonus mark rewarded for a team member/s who contributes significantly

Team

- Suggestions:
 - One person acts as team coordinator – this role can be rotated
 - One/two person/s is/are responsible for HTML markup document (use HTML5 semantic markups)
 - One/two person/s is/are responsible for CSS3 styling
 - One/two person/s is/are responsible for frontend interactions
 - One/two person/s is/are responsible for backend processing
 - Hold regular meetings to discuss work and keep track of progress
 - Everyone records their work on Trello (one Trello system per team)
- Problems encounter:
 - Try and resolve the issues with the team members first
 - if the issues can not be resolved, raise them with me (Dr Jeannette Chin – j.chin@uea.ac.uk)

Marking Scheme and Rubric

- Quality of the overall website, based on “look and feel” and functionality, e.g. ease of navigation, complexity but usefulness of layout, ability to resize sensibly, form functionality, and accessibility.
- Assignment brief interpretation. Have the specifications been followed and implemented? If not any sensible/reasonable justifications?
- Additional marks will be awarded for other features you have researched yourselves and that effectively enhanced the website.
- Quality of coding (HTML, CSS and JavaScript)
- Answers to questions and the demonstration of student’s wider understanding
- Documentation (Trello and Blackboard submission)