SOFT166

Programme Introduction & Development workshops

20 CREDIT MODULE / **50% COURSEWORK SUBMISSION**
/ **50% PRACTICE SUBMISSION**

MODULE LEADER: **SHIRLEY ATKINSON**
MODULE TUTORS:

MODULE AIMS

This module provides an introduction for students to the concepts, modes of study and technical content relevant to their programme of study. It also provides a grounding in the basics of iterative development, version control, testing and documentation. Workshop sessions cover the essentials towards prototype release either in Games or Web development fundamentals.

ASSESSED LEARNING OUTCOMES (ALO):

1. Demonstrate an understanding of the principles and practices that are core to the learner's programme of study.
2. Demonstrate an understanding of the role of programme-specific technologies in an interdisciplinary context
3. Design and implement a prototype of appropriate complexity
4. Use appropriate collaborative tools

OVERVIEW

SOFT166 – Programme Introduction & Development workshops is a first semester module that provides you with the introduction to your chosen degree. This is your chance to find out more about what it means to work and be a professional in this environment along with developing the coding skills you will need for your chosen area.

This document outlines the second part of your assessment for the module, that of the Practice element.

For your practice element you are to demonstrate how you can use collaborative tools and design and implement a prototype web application. The focus of your web application will be to create a password checker application which uses the Hue lights in SMB109 Smart Lab to communicate current status of the password.

You may choose to create something different, but this must be negotiated with the module leader (Shirley) prior to week 17 (18th November 2019). Any application submission not conforming to the specification above that was not negotiated by week 17 will fail.

Module Deadlines & Deliverables

To pass this module you must achieve an overall grade of 40% across the two submitted pieces of work.

The first deliverable is described in a separate document. This document provides the information for the second assessment, that of the practice work. This practice work makes up the other 50% of the module mark.

Important Dates and Deliverables:

Element	Description	Deadline	Percentage
	Peer Review/Demo Session for wireframe	Week 17 Monday 18/11/19	
	Peer Review/Demo Session for Implementation	Week 24 Monday 6/01/20	
C1/W1 1	Final Individual Report. DLE Submission	Week 24 Thursday 09/01/20 16.00hrs	50%

PRACTICE 01 (P1W1) – Practice Portfolio 50%

DESCRIPTION

This practice element is evidenced through a portfolio of materials build up over the latter part of the module. You are required to both design and implement your web application using taught techniques from the module. Approaches to both the design and development will be covered in the lecture and practical series. Additionally, you are required to show good practice in project management with the aim of releasing your application on a public platform (GitHub).

Throughout the course of the latter part of the module peer review/demo sessions are provided for formative feedback and a final lab demo is required for assessment. It is required that you attend and contribute to each session to achieve full marks. All code must be version controlled and commented where appropriate, all 3rd party

assets and resources are to be formally credited. Templates will be provided for standard documents, management and GIT repository.

Your web application must make use of the Smart lights in the Smart Lab SMB109 using the Hue API. Create a web application as described in the overview above.

Pre-Production

Before you begin creating your website pages you must use a technique known as wireframing to map out exactly how your pages relate to each other. You must create a diagram of the website structure (sitemap) showing all the pages on the site and indicating how they are linked together.

During week 17 you will carry out a peer review/demo during the tutorial sessions where you share and discuss your sitemap concept and ideas. You must record who you reviewed, the constructive comments you made to them, and the constructive comments they made to you. This will form the basis of a final submission where you outline how you responded.

NOTE: Independent learning materials are provided and designed specifically to complement the tutorial material. Work through and apply these materials to hone your Javascript developer skills and achieve higher grades. You will also present a website design document planning your next iteration and customisation of your prototype web application.

Production/Alpha

Having completed prototype iteration so that you have a fully functional website, you will implement a final iteration based on the formative feedback and peer review. You will start with a final Web Design Document, bug fixing and refining/adding features. After extensive testing and debugging you will provide a final version on your Github repository.

PRACTICE 01 (P1W1) - DELIVERABLES

You must submit one PDF file to the module DLE page containing your **Web Design Document**. This document will contain links to the following:

- The final project management plan on a separate service (Trello)
- GitHub repository containing your project.

Documents **must** be uploaded by the deadlines shown on the DLE. Ensure you do not leave uploading to the last minute or you may face a penalty if the server upload speed is too slow. Double check the submitted file was correctly uploaded. A second late will see you capped at 40%. It is recommended you upload the day before, earlier if possible. No changes to the GitHub repository after the deadline will be accepted.

DELIVERABLES IN DETAIL

Web Design Document

- This must be in PDF format.
- You must provide a sitemap and wireframes to illustrate the overall structure of your web application.
- Document any settings and images
- Provide evidence that you have tested your web application using the Web Accessbility Initiative (WAI) guidelines with a commentary about what you would change and why

- Include a list of the feedback acquired from the Demo session
- Provide the URL's for your Trello board and your GitHub repo

Project Management (Trello Board)

The Trello board is a tool for organizing the tasks required to complete your project. You judge how you use the board. Please refer to the sample board on the DLE. Organise your tasks using the labels provided with Trello; use your discretion on how you label them. Common labels are Programming, Design, Bug and Useful Links. Ensure you use the "due date" on tasks (not all require it though). This will help you measure your time spent on tasks and time remaining before hand in. When you feel your web application is at an appropriate stage, or you would like to demonstrate a feature, include a commented screen capture or screenshots of your application. An example could be to demonstrate a user interaction with a short video, showing the feature in action with a short explanation of the code. Please remember that projects do not always go according to plan, the Trello board should reflect those changes.

GitHub prototype page (Readme.md)

The GitHub repository provides you with an initial readme.md page. Do not leave this blank but turn it into your own GitHub prototype page. Refer to this cheat sheet on how to manipulate markdown - https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet.

Your page should contain the following:

- YouTube video
  - Length must be 1-2 minutes long
  - 720p to 1080p resolution
  - Show only the application, or any promotional material about the application (not you on your webcam)
  - Use the free obsproject (https://obsproject.com/) software if you do not have any that is appropriate
- Screenshots must be high resolution (720p to 1080p)
  - Screenshots show only the application, not the code Editor
- Application fact sheet
  - Application description of at least 200 words
    - Include a thorough explanation of the application and how to use it
    - Contains no spelling mistakes
    - Good use of English (sentence structure, punctuation etc)
    - A list of up to 5 key features
- Evidence of testing on more than one browser
- Evidence of Web Accessibility testing and results
- Extra marks are awarded for:
  - Professional style of application throughout all pages
  - Varied screenshots showing different parts/aspects of the application

Source code

- Must be clearly in separate folder on GitHub repository
- Technologies in use must be only HTML, CSS and Javascript
  - Any application attempting to use server-side code and database connectivity will fail as it does not conform to the brief.
- Frameworks such as Bootstrap and JQuery are expected to be in use

    - Templates such as W3.css are acceptable
    - No extra marks are provided for creating your own CSS stylesheets
- Web application operates smoothly without crashing
    - Extra marks awarded for innovative approaches in use
- Web application must have the following pages:
    - Index
    - About
    - application page (showing the purpose of the application)
    - Lights key page to show which lights illustrate what. For example, row 1 on left hand side of screen will show red if password not long enough, row 2 will show red if password does not contain correct characters.

GIT repository

- The readme file for your repository is appropriately completed as mentioned above.
    - Repo readme includes all additional resources (images, libraries etc) fully credited
- The file structure is laid out appropriately
- No previous versions of the application are present in the repository in a .zip or other compressed format
- Commits to the repository are appropriately commented
- Commits are in a consistent timely manner, at least once every week, not all just before a deadline.
- Extra marks are awarded for evidence of good Javascript coding standards, including:
    - Logical naming conventions for variables, methods, classes etc
    - Thorough commenting
    - Logical separation of code
    - Reuse of code

NB: If we cannot access your material from the date of submission we may not be able to mark it!

SOFT166 - PRACTICE 01 (P1W1) MARKING RUBRIC

To achieve the learning outcomes for this assignment you will need to provide evidence through your submissions indicative of elements listed below:

FAIL	Pass 40-50	OK 50-60	Good 60 -70	Excellent 70 +
SOURCE CODE – 50 %				
Not present.	Source code is present in repository	Source code is in a "website" folder for project. Application runs with no crashes If crash is present, documentation is provided to avoid crash in "website" folder	Logical separation of code and naming of variables, methods and classes. Thorough code commenting. Index, About and application screens present with appropriate navigation	Custom code shows good OOP standards (inheritance, composition, polymorphism).
PROJECT BOARD – 10 %				
Not provided.	Board is present.	Board is organised in a logical, understandable manner. Board makes use of labels to separate different parts of development (i.e. design, code etc).	Cards have a due date. Any bugs and solutions found are present. Board has consistent usage throughout	Board includes commented screen captures explaining stages of development.
GIT REPO – 10 %				
Not present.	Repository is present. Access to repository is provided to marker (if repository is set to private).	Repository includes a completed readme Correct repository file structured present (as per instructions)	Readme includes all additional resources Commits are appropriately commented	Commits are consistent and timely manner, at least once every week.

FAIL	Pass 40-50	OK 50-60	Good 60 -70	Excellent 70 +
WEB DESIGN DOCUMENT – 15 %				
Not present.	Document is in PDF format.	Feedback included from both demo sessions (wireframe and implementation).	Entire document is complete with appropriate content.	Spelling and punctuation are correct (where appropriate). All elements documented with all settings and images.
GitHub prototype page – 15 %				
Not present.	Page is present. Working downloadable .zip file of code present Page has fact sheet.	At least 3 screenshots present Application fact sheet completed	YouTube video present, showing only one page YouTube video is not webcam footage. Page is styled with custom art.	YouTube video is professional looking and suitable length (1-2 minutes long).

Please refer to all the lecture content & further study resources on the DLE.