

Assessment Task 2: Full stack Development – Portfolio

Student Version

Section A – Course details

Qualification code:	ICT50220	Qualification title:	Diploma of Information Technology (Front End Web Development) with Diploma of Information Technology (Back End Web Development)
Subject code:	(DWEB7)	Subject title:	(Full stack Development)
Unit code:	ICTWEB513 ICTWEB514 ICTWEB519	Unit title:	Build dynamic websites Create dynamic web pages Develop complex web page layouts
Department name:	BDIT, Computing & Information Technology	CRN number:	Enter CRN number

Section B – Assessment task details

Assessment number:	2 of 2	Semester/Year:	2/2021
Due date:	Session 15	Duration of assessment:	5 Weeks
Assessment method	Project/Report/Portfolio	Assessment task results	<input checked="" type="checkbox"/> Ungraded result (Satisfactory or Unsatisfactory) <input type="checkbox"/> Other: Click here to enter text.

Section C – Instructions to students

Task instructions:

This assessment task requires learners to build a server-side API that saves and stores data in a database, along with a client-side application for the server-side APIs endpoints. The scripts will need to demonstrate introductory object orientated programming techniques. The teacher will be playing the role of the client for this assessment task. The server-side API the learner developers may be about or for any topic, company, or community of the learner's choice. As long as the website meets the requirements outlined in this project.

This assessment has been divided into 6 key parts:

- Part 1 – Planning
- Part 2 – Prototype
- Part 3 – Development
- Part 4 – Testing & Debugging
- Part 5 – Handover and Sign Off

You are required to correctly provide/answer all questions/tasks as per instructions and assessment criteria to a satisfactory level for each question/task of this assessment to be given a satisfactory result by the assessor. If this is not achieved on the first attempt, then an opportunity to resubmit is allowed.

- Once learners have completed all the questions, the assessment must be uploaded and submitted along with the signed assessment coversheet via Brightspace.

Assessment Task 2: Full stack Development – Portfolio

- If a supplied answer is incorrect or requires further information, the learner will be requested to correct the issues and resubmit the assessment via Brightspace.
- Learners must contribute to and abide by organisational standards including intellectual property and privacy laws.
- Learners may use the internet for research purpose however the learner's answer must be in their own words.

SEE SUPPORTING DOCUMENTATION BELOW FOR FURTHER INSTRUCTIONS.

Section D – Conditions for assessment

Conditions:

Student to complete and attach Assessment Submission Cover Sheet to the completed Assessment Task.

- This assessment is to be completed individually.
- You must meet all criteria listed in the marking guide to be marked satisfactory in this task.
- You may resubmit this task if not successful within the enrolment period as per Holmesglen conducting assessment procedure.
- You will have the opportunity to resubmit if any part of the assessment is deemed unsatisfactory (one resubmits allowed per task).
- The learner may use the internet for research.
- You are expected to dedicate time to developing this assessment task both in and out of the classroom.
- Development tools should include but are not limited to, Visual Studio Code, Chrome or Fire Fox (You have access to these tools in labs or they can be downloaded).
- You must submit; All required working files, documentation, and any other assets that you feel may be required in a zipped file.
- This Assessment task must be uploaded to Brightspace along with a complete and signed coversheet.
- This is an individual task. However, you are required to get information, feedback and ideas from your assessor, peers and industry to help complete the assessment planning guide.
- It is expected all documents will be completed and submitted electronically but if this is not possible, make alternative arrangements for submitting the documents with your assessor.
- You can appeal an assessment decision according to the Holmesglen Assessment Complaints and Appeals Procedure.
- If you feel you require special allowance or adjustment to this task, please discuss with your assessor within one week of commencing this assessment.

Equipment/resources students must supply:

Students intending to learn remotely will require access to:
A Mac or PC/laptop with the following minimum specification:

Quad Core CPU

- 8GB of RAM
- CPU with minimum 2ghz processor or faster
- 200GB of Storage
- Headset with microphone (webcam optional but preferred)
- Access to internet connection (ADSL or cable connection desirable)

Applications:

- Microsoft Word - access through Holmesglen MyHorizon
- WebEx - free to download
- Visual Studio Code – free to download
- GitHub
- Figma
- Visual Studio Code: <https://code.visualstudio.com/>
- Node.js

Equipment/resources to be provided by the RTO:

A Mac or PC/laptop with the following minimum specification:

Quad Core CPU

- 8GB of RAM
- CPU with minimum 2ghz processor or faster
- 200GB of Storage
- Headset with microphone (webcam optional but preferred)
- Access to internet connection (ADSL or cable connection desirable)

Applications:

- Microsoft Word - access through Holmesglen MyHorizon
- WebEx - free to download
- Visual Studio Code – free to download
- GitHub
- Figma
- Visual Studio Code: <https://code.visualstudio.com/>
- Node.js

Assessment Task 2: Full stack Development – Portfolio

Section D – Conditions for assessment

<ul style="list-style-type: none"> • Database server • Postman • Compass • MySQL Client • Libraries and frameworks required for building dynamic websites • Website testing and debugging tools • Onedrive or google drive/dropbox account for storage • 7Zip or an equivalent compression utility - free to download • Google Chrome – recommended web browser (and additional Browsers including Firefox & Edge) 	<ul style="list-style-type: none"> • Database server • Postman • Compass • MySQL Client • Libraries and frameworks required for building dynamic websites • Website testing and debugging tools • Onedrive or google drive/dropbox account for storage • 7Zip or an equivalent compression utility - free to download • Google Chrome – recommended web browser (and additional Browsers including Firefox & Edge)
---	---

Assessment Task 2: Full stack Development – Portfolio

Student answer sheet / Marking sheet

Section E – Marking Sheet - Student Answer Sheet

Subject Code:	(DWEB7)	Subject Title:	(Full stack Development)
Unit code:	ICTWEB513	Unit title:	Build dynamic websites
	ICTWEB514		Create dynamic web pages
	ICTWEB519		Develop complex web page layouts

Criteria for assessment		Satisfactory		Comment
		Yes	No	
Marking criteria: Part 1 - Plan and Design Assessment Documentation/Working files				
1.	The learner has meet with the client and discussed and clarified the user requirements outlined in the brief.	<input type="checkbox"/>	<input type="checkbox"/>	
2.	All required client-side technologies, frameworks, deployment platform for creating the Application have been selected.	<input type="checkbox"/>	<input type="checkbox"/>	
3.	A list of all required development tools has been created	<input type="checkbox"/>	<input type="checkbox"/>	
4.	At least one wireframe layout design for the website UI that meets the client's requirements outlined in the brief has been created and annotated	<input type="checkbox"/>	<input type="checkbox"/>	
5.	The learner has reviewed the conceptual designs with the client.	<input type="checkbox"/>	<input type="checkbox"/>	
6.	The learner has sought feedback on the conceptual designs	<input type="checkbox"/>	<input type="checkbox"/>	
7.	The leaner has responded to all feedback from the client	<input type="checkbox"/>	<input type="checkbox"/>	
8.	A UI layout and structure has been developed using appropriate software packages based and it aligns with the wireframe	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 2 - Develop Application Design Assessment Documentation/Working files				
1.	The project applies basic language syntax rules and best practices.	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The learner has selected and used language data types, operators and expressions, in order to create clear and concise code.	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Appropriate language syntax for extracting, looping over and selecting data from external data source has been used at least once.	<input type="checkbox"/>	<input type="checkbox"/>	
4.	A modular programming approach within function logic and scripting files has been used throughout the project	<input type="checkbox"/>	<input type="checkbox"/>	
5.	In at least to location the user has used arrays to store and organize objects and data	<input type="checkbox"/>	<input type="checkbox"/>	

Assessment Task 2: Full stack Development – Portfolio

Criteria for assessment		Satisfactory		Comment
		Yes	No	
6.	The application extracts and displays the required data from arrays and renders it in the UI using standard array processing algorithms and methods.	<input type="checkbox"/>	<input type="checkbox"/>	
7.	The learner has used the facilities of the language to read and write data, from and to text files.	<input type="checkbox"/>	<input type="checkbox"/>	
8.	The learner has created and display at least 6 graphics in the UI	<input type="checkbox"/>	<input type="checkbox"/>	
9.	At least 2 multimedia elements have been incorporated into the application	<input type="checkbox"/>	<input type="checkbox"/>	
10.	The learner has used the client-side frameworks/library's design pattern to implement 2 interactive features	<input type="checkbox"/>	<input type="checkbox"/>	
11.	Client-side validation has been implemented on at least one form	<input type="checkbox"/>	<input type="checkbox"/>	
12.	The interactions UI and Graphics align against the design plan/wireframe.	<input type="checkbox"/>	<input type="checkbox"/>	
13.	A feature that allows the user to customize the UI has been developed	<input type="checkbox"/>	<input type="checkbox"/>	
14.	A feature that personalizes the UI for the user has been developed	<input type="checkbox"/>	<input type="checkbox"/>	
15.	The personalized feature aligns against the learner's design plan/wireframe	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 3 - Develop API endpoints Assessment Documentation/Working files				
1.	The learner has developed 2 working unit tests.	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The learner has modified the project if required based on the results of the unit tests and ensured the unit tests pass.	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Results of the unit tests including a brief description have been documented as required.	<input type="checkbox"/>	<input type="checkbox"/>	
4.	User test to ensure that the application meets the user needs have been developed as required	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 4 - Apply basic object-oriented principles Assessment Documentation/Working files				
1.	A class that contains at least four primitive members has been implemented	<input type="checkbox"/>	<input type="checkbox"/>	
2.	A class that contains multiple options for object construction has been implemented	<input type="checkbox"/>	<input type="checkbox"/>	
3.	A class that uses user-defined aggregation has been implemented (object instance or member variables)	<input type="checkbox"/>	<input type="checkbox"/>	

Assessment Task 2: Full stack Development – Portfolio

Criteria for assessment		Satisfactory		Comment
		Yes	No	
4.	The learner has implemented inheritance, to at least two levels, based on the OOP design document provided.	<input type="checkbox"/>	<input type="checkbox"/>	
5.	The learner has demonstrated polymorphism at a simple level through inheritance, to enable the easy extension of the code.	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Correct language syntax for two loops has been developed	<input type="checkbox"/>	<input type="checkbox"/>	
7.	A class that contains 2 arrays of primitive data types has been created	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Three data types, three operators and three expressions have been used in the project	<input type="checkbox"/>	<input type="checkbox"/>	
9.	The correct language syntax for at least one function and one class has been implemented	<input type="checkbox"/>	<input type="checkbox"/>	
10.	Mathematical formulas on in least 2 different situations to solve programming problems in relation to design layout/components have been selected and used	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 5 – Debug the code Assessment Documentation				
1.	The learner has used the language debugging facilities of an integrated development environment (IDE)	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The learner has interpreted the compiler or interpreter messages to resolve syntax errors, and use debugging techniques to resolve logic errors	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 6 - Document Activities Assessment Documentation/Working files				
1.	The learners code meets the maintainable code requirements outlined in the brief.	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The learner has used comments and documentation tools to document at least two scripts and the comments meet the requirements outlined in the brief	<input type="checkbox"/>	<input type="checkbox"/>	
3.	The learner has evaluated the effectiveness of the selected frameworks/libraries in terms of how well they meet the stated design requirements (Minimum 1 Paragraph)	<input type="checkbox"/>	<input type="checkbox"/>	
Marking criteria: Part 7 – Hand Over Assessment Documentation/Working files				
1.	All of the requirements outlined in the brief have been meet	<input type="checkbox"/>	<input type="checkbox"/>	
2.	The application and program code meets all standards, expectations and guidelines outlined in the brief and by the client-side framework/library	<input type="checkbox"/>	<input type="checkbox"/>	
3.	The learner has referred to and used appropriate documentation for the language	<input type="checkbox"/>	<input type="checkbox"/>	
4.	The learner has present and reviewed the application with the client/user and obtain user acceptance	<input type="checkbox"/>	<input type="checkbox"/>	
5.	The learner has evaluated, and integrated, technical information and ideas to select and build solutions, and they have applied reading	<input type="checkbox"/>	<input type="checkbox"/>	

Assessment Task 2: Full stack Development – Portfolio

Criteria for assessment		Satisfactory		Comment
		Yes	No	
	strategies in relation to interpret project requirements, programming standards, and programming documentation			
6.	The learner has communicated relationships between ideas and information, in a style appropriate for a client, and has selected vocabulary, grammatical structures and conventions appropriate to the text, in relation to coding, recording outcomes, and documenting activities	<input type="checkbox"/>	<input type="checkbox"/>	
7.	The learner has navigated the world of work in relation to dealing with project expectation, technologies, documentation & clients	<input type="checkbox"/>	<input type="checkbox"/>	
8.	The learner has used small-size application development processes to build the application	<input type="checkbox"/>	<input type="checkbox"/>	
9.	The learner understands the potential of the new technology they have implement to build interaction, customisable features, graphics and multimedia, into the UI	<input type="checkbox"/>	<input type="checkbox"/>	

Assessment Task 2: Full stack Development – Portfolio

Assessment Submission Cover Sheet (VET)

Student declaration	
<p>By submitting this assessment task and signing the below, I acknowledge and agree that:</p> <ol style="list-style-type: none"> 1. This completed assessment task is my own work. 2. I understand the serious nature of plagiarism and I am aware of the penalties that exist for breaching this. 3. I have kept a copy of this assessment task. 4. The assessor may provide a copy of this assessment task to another member of the Institute for validation and/or benchmarking purposes. 	
Student ID:	
Student name:	
Submission or observation date:	
Student signature For electronic submissions: By typing your name in the student signature field, you are accepting the above declaration.	

Section F – Feedback to Student			
Has the student successfully completed this assessment task?		Yes	No
		<input type="checkbox"/>	<input type="checkbox"/>
Additional Assessor comments (as appropriate):			
Resubmission allowed:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Resubmission due date:
Assessor name:			
Assessor signature:			
Date assessed:			

Assessment Task 2: Full stack Development – Portfolio

Supporting document

Portfolio Instructions

Subject Code:	(DWEB7)	Subject Title:	(Full stack Development)
Unit code:	ICTWEB513	Unit title:	Build dynamic websites
	ICTWEB514		Create dynamic web pages
	ICTWEB519		Develop complex web page layouts

Model answers for the above questions and assessment criteria

Please refer to the project exemplar for working file examples

Project Brief

Read through the brief below take note of the needs and requirements outlined in the brief.

Introduction

This assessment task requires learners to build an advanced UI for a website, using a framework/library such as React.js. The scripts used to build the UI will need to demonstrate object orientated programming techniques. The teacher will be playing the role of the client & user for this assessment task. *The website the learner developers may be about or for any topic, company or community of the learner's choice. As long as the website meets the requirements outlined in this project.*

This assessment has been divided into 7 key parts:

- Part 1 - Plan the UI Design
- Part 2 - Develop Application Design
- Part 3 - Testing
- Part 4 - Apply basic object-oriented principles
- Part 5 – Debug the code
- Part 6 - Document Activities
- Part 7 – Hand Over

General website user requirements

- Home Page
- Collections of items page
A page that displays a collection of items (things/topics/people/etc.)
A title, image and URL should be displayed as a minimum for each item in the collection
- Details Page/Item Page
A page that allows the user to view an individual item (thing/topic/person/etc.) from the collection.
One title, image/s and description should be displayed as a minimum
- Pages that allow the user to perform CRUD operations
- Use of a framework such as React.js
- Routes must be created for all pages
- Error pages/alerts such as 404 & 500 errors must be created and implemented
- User Input Form
- Feedback form or some type of user input form
- This data must be validated and sanitized
- A personalise UI feature must be incorporated
- The UI must have at least on customisable feature

Coding standards and maintainability

Assessment Task 2: Full stack Development – Portfolio

- A config file must be used to store common data that is used across the site that is subject to change.
E.g. The URL of a database or data file
- A GIT repository should be used
Any major changes should be commented and committed to the GIT
Any experimental features should be created on a separate branch
- All code should be commented clearly
Classes and Scripts
A descriptive overview should be provided for each class and script as a comment at the top of the file.
Details about any parent classes should be documented at the top of the file.
Members
The purpose of each member should be documented as a comment.
Methods
The purpose of each method should be documented as a comment.
Parameters
The purpose of each parameter should be documented as a comment.

Technical requirements

- HTML5 & CSS3
- JavaScript should be used for client-side development
- A local server is required for testing
- Code editor such as Visual Studio Code
- A responsive framework such as Bootstrap
- React.js or Vue.js
- JSX if React.js

Part 1 - Plan and Design

Based on the information you have gathered from the brief complete the following:
Assessment Documentation

Before you commence the assessment organise a time to meet with the client to discuss and review the user requirements outlined in the brief.

Checklist (To be completed by the learner's facilitator)

Yes No

1. The learners has meet with the client and discussed and clarified the user requirements outlined in the brief.

Yes

Assessor Name	Daniel Fitzsimmons	Assessor Signature	Signature	Date	30/1/2021
2. Select all required client side technologies, frameworks, deployment platform for creating the Application.			E.G. HTML, CSS, JavaScript, Bootstrap, React, Heroku		
3. Select and list all required development tools.			E.G. Visual Studio Code, Google Chrome		
4. Develop at least one wireframe layout design for the website UI that meets the client's requirements outlined in the brief. Ensure that the wireframe is annotated.					
<p>Your wireframe will need to included your interactive feature:</p> <ul style="list-style-type: none">- Form Validation- One other interactive feature of your choice <p>Your wireframe will need to include at least one user personalised feature:</p> <ul style="list-style-type: none">- eg. Load and display the users favourites items- eg. Display personalised data on login					

Assessment Task 2: Full stack Development – Portfolio

Make sure you document and annotate these features on the wireframe. (Explain how they work. You may need to develop more than one wireframe to cover these requirements)

Insert wireframe here

Review the design with client

You will need to organise a time with your facilitator/client to observe review your wireframe concept design. You will need to review your conceptual design with the client. Seek feedback from the client and responded to the feedback.

Checklist (To be completed by the learner's facilitator)

Yes

No

5. The learner has reviewed the conceptual designs with the client.

Yes

6. The learner has sought feedback on the conceptual designs

Yes

7. The learner has responded to the feedback from the client

Yes

Assessor Name

*Daniel
Fitzsimmons*

Assessor
Signature

Signature

Date

30/1/2021

8. Design the UI layout and structure using appropriate software packages based on the wireframe. Ensure that this layout reflects any edits discuss during the approval and feedback process.

This may be completed in a design application such as Photoshop or you could use a layout design application like Adobe XD.

Insert a screenshot of the final design

Part 2 - Develop Application Design

Working Files

It is now time to build the frontend of your web application using front-end framework

Ensure that you develop all of the features outlined in the brief.

Below is a list of specific criteria you will need to ensure your application includes. Mark each as yes once you have ensured you have included these features.

Yes

No

1. Apply basic language syntax rules and best practices.

Yes

2. Select and use language data types, operators and expressions, in order to create clear and concise code.

Yes

3. Use the appropriate language syntax for extracting, looping over and selecting data from external data source.

Yes

Assessment Task 2: Full stack Development – Portfolio

4. Use a modular programming approach within function logic and scripting files.	Yes	
5. Use arrays to store and organize objects and data.	Yes	
6. Extract and display the required data from arrays. Display and render in the UI using standard array processing algorithms and methods.	Yes	
7. Use the facilities of the language to read and write data, from and to, text files.	Yes	
8. Create and display at least 6 graphics in the UI	Yes	
9. Add at least 2 multimedia elements to an application	Yes	
10. Use your client-side frameworks design pattern to implement your applications 2 interactive features	Yes	
11. Implement client-side validation on at least one form	Yes	
12. Provided the following evidence to demonstrate that your UI and Graphics align against your design plan/wireframe. Your final application design must align with your wireframe.		
Insert a screenshot of your final application design in a browsers	Insert a screenshot of you ordinal design plan/wireframe	
<i>Insert Screenshot of the final UI in Browser Ensure that the design and interactive features aligns with the wireframe/design plan.</i>	<i>Insert a screenshot of your wireframe</i>	
	Complete	Not Complete
13. Develop a feature that allows the user to customize the UI	Complete	
14. Develop a feature that personalizes the UI for the user.	Complete	
15. Provided the following evidence to demonstrate that your personalized feature align against your design plan/wireframe. Your final application design must align with your wireframe.		
Insert a screenshot of your final application design in a browser	Insert a screenshot of your ordinal design plan/wireframe	
<i>Insert Screenshot of the final UI with personalized feature Ensure that the personalized feature aligns with the wireframe/design plan.</i>	<i>Insert a screenshot of your wireframe</i>	

Assessment Task 2: Full stack Development – Portfolio

--	--

Part 3 - Testing

Assessment Documentation/Working files

With your application now built its time to test your code. Create 2 unit tests for your application. Once you have designed your unit test arrange a time to run the test while your facilitator observes the test being performed and the results of the tests.

Skills to be observed during this task to the required standard. Checklist (To be completed by the learner's facilitator) The following tasks are to be completed in relation to the brief for this project. Each of the skills must be observed on at least one occasion.		Date 1		Date 2	
		30/1/2021		30/1/2021	
		Satisfactory		Satisfactory	
		Yes	No	Yes	No
1. The learner has develop 2 working unit tests.		Yes		Yes	
2. The learner has modified the project if required based on the results of the unit tests and ensured the unit tests pass.		Yes		Yes	
Assessor Name	Daniel Fitzsimmons	Assessor Signature	Signature	Date	30/1/2021

3. Record the results of the unit tests below including a brief description & result.

Brief description of test performed	Result	Result	
		Pass	Fail
E.G. Test the feedback submit function and ensures it submits the correct data to the data file as expected	Data is submitted as expected to the data file	Pass	
E.G. Test that the data loads for each speaker by crosschecking it with the data with the data in the data file.	Data loads correctly and as expected	Pass	

4. Develop 2 user test to ensure that the application meets the user needs

Brief description of test performed	Result	Result	
		Positive	Negative
E.G. Organised a potential user of the web application to test all CRUD operation with no assistance and limited instructions to ensure that the UI is intuitive	The user was able to perform all CRUD operation with little to no assistance	Positive	

Assessment Task 2: Full stack Development – Portfolio

<i>E.G. Organised a potential user of the web application to test personalised features to ensure that they improve the user experience. The measurement of success for this test related to how quickly the user could find and access data in the personalised UI vs standard UI</i>	<i>The user was able to access the data with a reduced number of clicks it also remove the user need to search or filter through the data</i>	<i>Positive</i>	
Question	Answer		
5. List the Pros and the Cons of using a STRING vs a FLOAT. Then based on your list of pros and cons select the most appropriate datatype for storing currency values.	PROS <i>Answer Here</i> CONS <i>Answer Here</i> Best Operator for this situation <i>Answer Here</i>		
6. Compare the pros and cons of using the following operators in the following way. i++ i = i + 1 Then select the operator that you fell is best for this situation.	PROS <i>Answer Here</i> CONS <i>Answer Here</i> Best Operator for this situation <i>Answer Here</i>		
7. List the Pros and the Cons of using a Ternary operator. When would you use this as an expression in JSX?	PROS <i>Answer Here</i> CONS <i>Answer Here</i> Use Case in JSX <i>Answer Here</i>		
8. Explain the difference between the following expressions: i > 5 and i >= 5	i > 5 <i>Answer Here</i> i >= 5 <i>Answer Here</i>		

Part 4 - Apply basic object-oriented principles

Assessment Documentation/Working Files

Part 4 may be incorporated into this website project or you may choose to complete the requirements for this section in a separate website or project.

Ensure that you develop all of the features outlined in the brief.

OOP Requirements	Location of the file the demonstrates this requirement
1. Implement a class that contains at least four primitive members. A member variable is a variable defined in a class, for which each instantiated object of the class has a separate copy, or instance.	<i>E.G. Assessment2/OOP/PrimitiveMembers</i>
2. Implement a class that contains multiple options for object construction	<i>E.G. Assessment2/OOP/Constructors</i>

Assessment Task 2: Full stack Development – Portfolio

3. Implement a class that uses user-defined aggregation (object instance or member variables)	<i>E.G. Assessment2/server/routes/item</i>
4. Create a class that implements inheritance, to at least two levels, based on the OOP design document provided to you. <i>The child class must use methods and members from the parent class to perform some type of task.</i>	<i>E.G. Assessment2/OOP/Inheritance</i>
5. Demonstrate polymorphism at a simple level through inheritance, to enable the easy extension of the code. <i>Your code must perform a task that uses the principle of polymorphism</i>	<i>E.G. Assessment2/OOP/Polymorphism</i>
6. Use correct language syntax two loops (eg. for or while)	<i>E.G. Assessment2/OOP/Polymorphism</i>
7. Implement a class that contains 2 arrays of primitive data types.	<i>E.G. Assessment2/OOP/Class</i>
8. Use three data types, three operators and three expressions	<i>E.G. Assessment2/Components/Shortcuts</i>
9. Use correct language syntax for at least one function and one class.	<i>E.G. Assessment2/Components/Shortcuts</i>
10. Select and use mathematical formulas on in least 2 different situation to solve programming problems in relation to design layout/components	<i>E.G. Assessment2/Components/Shortcuts</i>

Part 5 – Debug the code

You will need to organise with your facilitator to observe you debug your code and demonstrate the following skills on two separate occasions.

Assessment Documentation

Skills to be observed during this task to the required standard. Checklist (To be completed by the learner's facilitator) The following tasks are to be completed in relation to the brief for this project. Each of the skills must be observed on two separate occasions. These may occur on the same day.					Date 1		Date 2	
					30/1/21		31/1/21	
					Satisfactory		Satisfactory	
					Yes	No	Yes	No
1. The learner has used the language debugging facilities of an integrated development environment (IDE)					Yes		Yes	
2. The learner has interpreted the compiler or interpreter messages to resolve syntax errors, and use debugging techniques to resolve logic errors					Yes		Yes	
Assessor Name	<i>Daniel Fitzsimmons</i>	Assessor Signature	<i>Signature</i>	Date	30/1/21			

Assessment Task 2: Full stack Development – Portfolio

Part 6 - Document Activities

Assessment Documentation/Working Files

It is now time document your project.

Ensure that you develop all of the features outlined in the brief.

	Complete	Not Complete
1. Ensure your code meets the maintainable code requirements outlined in the brief.	Complete	
<p>2. Use comments and documentation tools to document at least two scripts. Ensure that the comments meet the tools documentation standards.</p> <p>Classes and Scripts A descriptive overview should be provided for each class and script as a comment at the top of the file. Details about any parent classes should be documented at the top of the file.</p> <p>Members The purpose of each member should be documented as a comment.</p> <p>Methods The purpose of each method should be documented as a comment.</p> <p>Parameters The purpose of each parameter should be documented as a comment.</p>	Complete	
<p>3. Evaluates the effectiveness of your selection of frameworks/libraries in terms of how well they meet the stated design requirements (Minimum 1 Paragraph)</p> <p>Some questions to consider: <i>Did a certain client side library or module meet your needs or would you choose an alternative next time?</i> <i>What modules work well what modules provided difficult to implement?</i> <i>Would you change the way you structure the application or components?</i></p>	<p><i>E.G. Reacts documentation pales in comparison with other libraries like Vue's. It goes through the basics of React development and includes some advanced concepts, but the presentation isn't as accessible or well-structured. This made it harder to understand feature for the design requirements.</i></p> <p><i>All the JSX JavaScript has to be written as expressions this can take longer as you need to think about how you will write it as a expression.</i></p> <p><i>Stage-management in react works well and is simple and use and it meet the requirements nicely.</i></p> <p><i>React has to be used together with other libraries as it is not a framework, however. This has it positive as I could choose the frameworks I wanted to use.</i></p> <p><i>React is fast and meets the requirements in terms of user experience however Vue is faster.</i></p> <p><i>React is also the most popular client side framework so a large variety of resources are available to support the development of features to meet the requirements. If I was to build a similar</i></p>	

Assessment Task 2: Full stack Development – Portfolio

	<i>project again React or Vue would both be great options.</i>
--	--

Part 7 – Hand Over

Assessment Documentation/ Working Files

1. Your application is almost finished but before we present the project and hand it over, we need to ensure we have meet all of the clients and user's requirements. Complete the check list below. **Refer back to the project brief for a detailed list of all the requirements.**

Requirements	Meets Requirements	
	Yes	No
General website user requirements (Refer to Project Brief for a)	Yes	
Coding standards and maintainability requirements	Yes	
Technical requirements	Yes	

Final Approval and Hand Over

You will need to organise a time with your facilitator to observe you referring to appropriate documentation and review your final solution for the project. You will need to present and explain your code and program structure.

Skills to be observed during this task to the required standard. Checklist (To be completed by the learner's facilitator) The following tasks are to be completed in relation to the brief for this project. Each of the skills must be observed on at least one occasion.	Date 1		Date 2	
	30/1/2021			
	Satisfactory		Satisfactory	
	Yes	No	Yes	No
2. The application and program code meets all standards, expectations and guidelines outlined in the brief and by the client-side framework/library	Yes			
3. The learner has referred to and used appropriate documentation for the language	Yes			
4. The learner has present and reviewed the application with the client/user and obtain user acceptance	Yes			
5. The learner has evaluated, and integrated, technical information and ideas to select and build solutions, and they have applied reading strategies in relation to interpret project requirements, programming standards, and programming documentation	Yes			
6. The learner has communicated relationships between ideas and information, in a style appropriate for a client, and has selected vocabulary, grammatical structures and conventions appropriate to the text, in relation to coding, recording outcomes, and documenting activities	Yes			
7. The learner has navigated the world of work in relation to dealing with project expectation, technologies, documentation & clients	Yes			
8. The learner has used small-size application development processes to build the application	Yes			

Assessment Task 2: Full stack Development – Portfolio

9. The learner understands the potential of the new technology they have implement to build interaction, customisable features, graphics and multimedia, into the UI				Yes			
Assessor Name	<i>Daniel Fitzsimmons</i>	Assessor Signature	<i>Signature</i>	Date	<i>30/1/2021</i>		