



<b>Qualification national code and title</b>	<b>ICT50220 Diploma of Information Technology (Front-End Web Development)</b>
<b>Unit/s national code/s and title/s</b>	ICTWEB517 Create web-based programs ICTPRG546 Validate application designs against specifications

## Assessment 3: Project - Build a web application using a framework

### Assessment type (☑):

- ☐ Questioning (Oral/Written)  
☐ Practical Demonstration  
☐ 3<sup>rd</sup> Party Report  
☒ Other – Project/Portfolio *(please specify)*

### Assessment Resources:

Access to Blackboard Cluster – Web application Development  
IDE such as VSCode or editor Notepad++

### Assessment Instructions:

#### Assessment Time

See Learning Plan for details. This is Assessment 3: Project - Build a web application using a framework.

#### Assessment Due Date

Session 17 – 31<sup>st</sup> May 2024.

#### Unit Elements

ICTWEB517 Create web-based programs.  
Element 2. Implement session management  
Element 3. Develop and finalise applications in a stateless environment

ICTPRG546 Validate application designs against specifications  
Element 1. Evaluate software requirement specifications  
Element 2. Create proof of concept prototype  
Element 3. Evaluate software design  
Element 4. Evaluate the testing requirements

#### Assessment Instructions

You are to develop a custom web application using a framework in Next.js;  
All skills must be demonstrated to achieve a satisfactory result;  
Please submit using through blackboard submission box;  
Ensure you have used the required template for your assessment;



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## Assessment Instrument:

### Assessment Description:

In this assessment you will be demonstrating your ability to apply object-oriented language skills using the relevant industry standard targeted language (e.g., OO React, Next.js). This application is a “web application” built through the “Next.js” sessions for the One Ring Rentals (client) scenario to provide functionality. The web application is to use a React library and the Next.js framework. You will also need to upload and research a hosting platform that will support the React Library and the Next.js Framework.

### Assessment Method:

You are to complete a series of tutorial tasks to build a web-based program using an object-oriented programming language: These tasks will be informed by your design and requirements for the “One Ring Rentals” application project.

Your web-based program is to use:

- Relevant Language syntax, and basic OO principles
- Adhere to the technology coding standards for layout (components)
- Have in code documentation.
- Create, use, and document testing of code – Screenshots
- Testing of site is to be in browser and on two devices - Screenshots

### Assessment Instructions:

- Use the “One Ring Rentals” prototype from “Assessment 2: Project – Build web page using components”.
- The Application (One Ring Rentals) is constructed:
  - Using Next.js React framework.
  - Information (data) is shown in components (Can use the same components from “Assessment 2: Project – Build web page using components”). Convert in the Next.js framework.
  - The application is to use state to track a user data between components (Use the blog example from the Next.js tutorial and apply to the pages).
    - Convert the blog example to some content on the “one Ring Rentals” pages.
- Research application hosting platforms suitable for React library and Next.js framework. (provide Links reference)
- Upload your application to your chosen hosting platform and submit the link with your assessment submission in Blackboard.



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<b>Assessment # and title</b>	Assessment 3: Project - Build a web application using a framework		
<b>Lecturer name</b>			
<b>Student name</b>			
<b>Student ID number</b>			
<b>Telephone contact number</b>		<b>Email:</b>	
By completing and submitting this signed form to my lecturer, I am stating that: <ul style="list-style-type: none"> <li>a. The attached submission is completely my own work</li> <li>b. I have correctly cited all sources of information used in this work (if required)</li> <li>c. I have kept a copy of this assessment (where practicable)</li> <li>d. I understand a copy of my assessment will be kept by the NMTAFE for their records</li> <li>e. I understand my assessment may be selected for use in the NMTAFE's validation and audit process to ensure student assessment meets requirements</li> </ul>			
<b>Student Signature</b>		<b>Date</b>	

**Assessor please note:** Where verbal clarification has been sought from a student to gather additional assessment evidence from an assessment item, question/s and response/s must be recorded, signed, and dated by the assessor, against the relevant assessment item/s.

**Submission 1** ☐ **Assessment Result Satisfactory / Not Yet Satisfactory** (please circle) **Date:** \_\_\_\_\_

To satisfy requirements for this assessment, you need to complete the following:

No.	Complete the task by following these steps	S or NYS
1	Apply basic language syntax and layout using Next.js in a web application	<input type="checkbox"/>
2	Apply basic object-oriented principles in React using the Next.js framework	<input type="checkbox"/>
3	Debug the code using the IDE or editor, debugging tool for syntax errors	<input type="checkbox"/>
4	Include comments throughout the code for documentation	<input type="checkbox"/>
5	Develop in an application framework environment	<input type="checkbox"/>
6	Develop web application framework to incorporate functionality	<input type="checkbox"/>
7	Maintain data state and display on web pages (Use blog example)	<input type="checkbox"/>
8	Update the data state from user input	<input type="checkbox"/>



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9	Screenshots showing debugging and testing of code	<input type="checkbox"/>
10	Screenshots showing application in two devices	<input type="checkbox"/>
11	Research application hosting platforms suitable for React library and Next.js framework (Provide Links Reference)	<input type="checkbox"/>
12	Upload your application to your chosen hosting platform and submit the link with your assessment submission in Blackboard	<input type="checkbox"/>

**Submission 2** ☐ **Assessment Result Satisfactory / Not Yet Satisfactory** (please circle) **Date:** \_\_\_\_\_

To satisfy requirements for this assessment, you need to complete the following:

### Student Feedback

**Lecturer Signature:** \_\_\_\_\_ **Student Signature:** \_\_\_\_\_