

# ICTPRG302

# Apply introductory programming techniques

# Assessment 4 of 6

# Case Study

**Assessor Guide** 



## Assessment Instructions

#### Task Overview

Read each question carefully before typing your response in the space provided.

**Important:** Before commencing your work, you must update your *Student name* and *Student number* in the footer from **page 2** onwards.

#### Additional Resources and Supporting Documents

To complete this assessment, you will need:

- Learning Material
- Design Document Draft

## Assessment Information

#### Submission



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|------------|--------------|
| Ø          | $\checkmark$ |

# You are entitled to three [3] attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the Learning Platform. Hand-written assessments will not be accepted unless previously arranged with your assessor.

#### Reasonable adjustment

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

- the processes for conducting the assessment (e.g. allowing additional time)
- the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit. Refer to the Student Handbook or contact your Trainer for further information.



Please consider the environment before printing this assessment.



Page 2 of 5

#### **Case Study**

Bounce Fitness prides itself on fostering innovation and delivering cutting-edge technological solutions to empower customers in their fitness journeys.

You are an IT Technician at Bounce Fitness. You are responsible for creating applications that reflect the organisation's commitment to excellence and seamless user experiences.

In this assessment, you are required to design and develop the Bounce Fitness Connect application based on the draft design document from Assessment 3.

## Task 1

- a. Access and review the partially completed design document from Assessment 2.
- b. Decide on the following that will be used in writing the code for the application:
  - i. All appropriate control structures to be included in the code.
  - ii. All variables and arguments must be included for each control structure.
  - iii. Fill out the Algorithm Desing section
  - iv. Save and submit it using the following naming convention:

## <Student Name>\_ Design Document Final

- c. Write the code for the application using the features of the programming software selected to meet task requirements. It is recommended that you use Python as the programming language to write the code.
   When writing the code:
  - i. Follow basic language syntax rules
  - ii. Use appropriate language data types
  - iii. Use appropriate variables and variable scopes
  - iv. Use program library functions
  - v. Establish data structures that will be used in control structures
  - vi. Use the following control structures:
    - Sequence constructs
    - Selection constructs
    - Iteration constructs
  - vii. Establish mathematical proofs to ensure the code functions correctly
  - viii. Include sequential access algorithms
  - ix. Apply string manipulation
  - x. Leave comments to assist with readability and understanding
  - xi. Follow identified programming standards and guidelines
  - xii. Save and submit a copy of the code using the following naming convention:

#### <Student Name>\_Application Code

<u>NOTE: Ensure you have completed and received feedback for Assessment 4 on your Design Document Final and your application code before you start working on Assessment 5</u>.



Assessor instructions: Students must review the work brief for the application and fill out the Design Document.

The acceptable responses must:

- Be within the specified word limit.
- Reflect the characteristics described in the exemplar answer.

Benchmark answers are provided in the **Design Document Final – Assessor Guide**.

They also need to write the code for the application using the features of the programming software selected to meet task requirements. A sample answer to the code is provided in the **Application Code – Assessor Guide**.



# Assessment submission checklist

Students must have completed all questions within this assessment before submitting. This includes:

 1
 Task 1

 Design Document Final

 Application Code

## Assessment feedback

Assessors are to indicate the assessment outcome as Satisfactory [S] or Not Yet Satisfactory [NYS].

| Assessor comments: | □ S |  |
|--------------------|-----|--|
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|                    |     |  |

Congratulations, you have reached the end of Assessment 4!

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