

Project Assessment

Criteria

Unit code, name and release number

ICTPRG403 Develop data-driven applications

ICTPRG410 Build a user interface

ICTPRG404 Test applications

Qualification/Course code, name and release number

Certificate IV Programming

Student details

Student number

Student name

Assessment Declaration

- This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
- No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
- I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

Student signature and Date

Version: 1.0
Date created: 2 August 2018
Date modified: 28/10/2019

For queries, please contact:

SkillsPoint

Location

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RTO Provider Number 90003 | CRICOS Provider Code: 00591E

This assessment can be found in the: [Learning Bank](#)

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Assessment instructions

Table 1 Assessment instructions

Assessment details	Instructions
Assessment overview	The objective of this assessment is to assess your knowledge and performance as would be required to complete several tasks involving basic UI design structure that is provided to you as a prototype. You may also use your own design or templates. The focus of this assignment is your development of a data driven application applying the separation of concerns design principle. You are also required to integrate unit testing in your solution.
Assessment Event number	1 of 3
Instructions for this assessment	<p>This is a project based assessment and will be assessing you on your knowledge and performance of the unit.</p> <p>For this project, you will create a “tracking employee work hours” application that provides a company manager with access to the following system functions:</p> <ol style="list-style-type: none"> 1. Ability to add a new employee to the system 2. Ability to find all employees 3. Ability to record employee’s working hours in a daily bases <p>This assessment is in 4 parts:</p> <ol style="list-style-type: none"> 1. <i>Database design and implementation</i> 2. <i>Coding</i> 3. <i>Unit Testing</i> 4. <i>Assessment Feedback</i>

Assessment details	Instructions
Submission instructions	<p>On completion of this assessment, you are required to submit the whole projects (solution folder) and SQL script (schema and data) in class to your assessor for marking. You will need to demonstrate your project to the teacher during class time to get continuous feedback as you progress.</p> <p>Ensure you have written your name at the bottom of each page of this assessment.</p> <p>It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment.</p>
What do I need to do to achieve a satisfactory result?	To achieve a satisfactory result for this assessment all questions must be completed correctly.
What do I need to provide?	Home computer: Visual Studio & SQL Server, USB stick, Pen, and Papers
What the assessor will provide?	Computer lab: Visual Studio & SQL Server, Notes, Class examples
Due date and time allowed	Monday 25 November 2019
Assessment feedback, review or appeals	Appeals are addressed in accordance with Every Students Guide to Assessment.

Specific task instructions

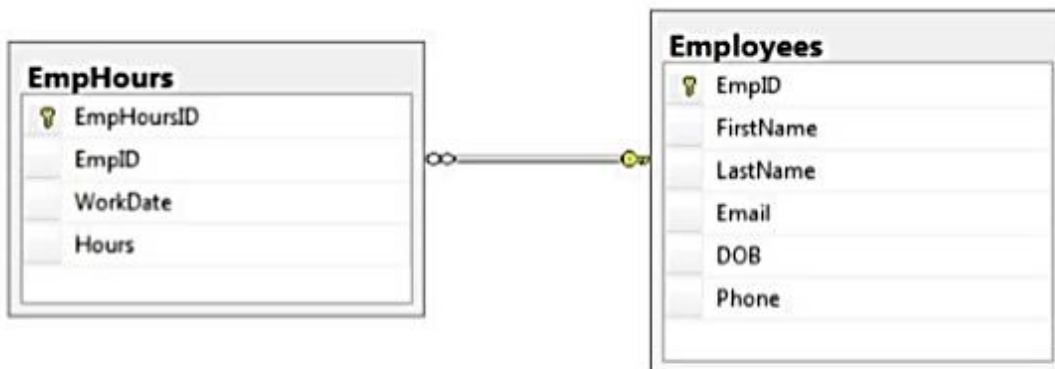
The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required knowledge.

Part 1: Database design and implementation

To complete this part of the assessment, you will be required to use Microsoft SQL Server to do the following:

- 1- Create the database
- 2- Create all tables
- 3- Insert sample data to each table (5 records at least in each table)
- 4- Create the following stored procedures:
 - a. Insert employee
 - b. Update employee
 - c. Insert Employee hours (insert record to EmpHours table)
 - d. Select employee by EmpID
 - e. Select employee by email
 - f. Select all employees
 - g. Select employee work date and hours by EmpID

Once completed you will need to seek feedback from the teacher before proceeding to the next task.



Part 2: Coding

To complete this part of the assessment, you will be required to develop a data driven application by applying separation of concerns design principle.

1. Create a solution in Visual Studio and name it (ETS) (stands for Employees Tracking System).
2. Add four projects to the solution:
 - View Project: a project of type (Windows Forms Application) and name it (ETS.View)
 - Entity Project: a project of type (Class Library) and name it (ETS.Entity)
 - Business Logic Project: a project of type (Class Library) and name it (ETS.Logic)
 - Data Access Project: a project of type (Class Library) and name it (ETS.Data)
3. Implement the following user stories:
 - a. Ability to add a new employee to the system
 - b. Ability to find all employees
 - c. Ability to record employee's working hours in a daily bases

Sample Add Screen:	Sample Manage Screen:
<div style="background-color: #f0f0f0; padding: 10px; border-radius: 5px;"> <h3 style="margin: 0;">Employee Details</h3> <p>First Name: <input style="width: 100%;" type="text"/></p> <p>Last Name: <input style="width: 100%;" type="text"/></p> <p>Email: <input style="width: 100%;" type="text"/></p> <p>DOB: <input style="width: 100%;" type="text"/></p> <p>Phone: <input style="width: 100%;" type="text"/></p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> Save Clear </div> </div>	<div style="background-color: #f0f0f0; padding: 10px; border-radius: 5px;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <h3 style="margin: 0;">List of employees</h3> <div style="border: 1px solid #ccc; height: 150px; width: 100%;"></div> </div> <div style="width: 30%;"> <h3 style="margin: 0;">Update Details</h3> <p>Employee ID: <input style="width: 100%;" type="text"/></p> <p>First Name: <input style="width: 100%;" type="text"/></p> <p>Last Name: <input style="width: 100%;" type="text"/></p> <p>Email: <input style="width: 100%;" type="text"/></p> <p>DOB: <input style="width: 100%;" type="text"/></p> <p>Phone: <input style="width: 100%;" type="text"/></p> <div style="text-align: right; margin-top: 10px;"> Save Changes </div> </div> <div style="width: 30%;"> <h3 style="margin: 0;">Working Hours</h3> <p>Work Date: <input style="width: 100%;" type="text"/></p> <p>Hours: <input style="width: 100%;" type="text"/></p> <div style="text-align: right; margin-top: 10px;"> Record Hours </div> </div> </div> </div>

Part 3: Unit Testing

To complete this part of the assessment, you will be required to integrate unit test project into the solution. You must include the following:

- A Unit Test Class containing at least six Unit Test Methods
- Each test method is to verify the correctness of one method in the Logic project
- Test methods must be runnable and produce a result
- Proper test data must be used in testing in order to verify the correctness of test method under test

Part 4: Assessment Feedback

NOTE: This section must have the assessor signature and student signature to complete the feedback.

Assessment outcome

- ☐ Satisfactory
- ☐ Unsatisfactory

Assessor Feedback

- ☐ Was the assessment event successfully completed?
- ☐ If no, was the resubmission/re-assessment successfully completed?
- ☐ Was reasonable adjustment in place for this assessment event?

If yes, ensure it is detailed on the assessment document.

Comments:

Assessor name, signature and date:

Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

Student name, signature and date

NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.