**This template does not contain instructions for candidates in full. These can be found in the Coursework Assessment Task.**

**Project title:**

*<insert your project title here>*

**Identify the type of Project**

Referring to pages 15, 17 and 19 of the Coursework Assessment Task, identify the type of project.

|  |  |
| --- | --- |
| Project type | Tick one |
| Software design and development with Database design and development (page 15) |  |
| Software design and development with Web design and development (page 15) |  |
| Database design and development with Software design and development (page 17) |  |
| Database design and development with Web design and development (page 17) |  |
| Web design and development with Database design and development (page 19) |  |
| Web design and development with Software design and development (page 19) |  |

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# Analysis of the problem

The analysis stage of your project should take between 5 and 6 hours, including time to revisit and adapt as the project progresses.

## **Description of the problem** (2 marks)

### **Outline of the problem**

Your outline should identify the Advanced Higher concepts and the integration with one other technology that will be used in your project.

Refer to pages 14, 16 or 18 of the Coursework Assessment Task to help with this.

(150-300 words)

|  |
| --- |
|  |

### **Constraints**

Describe any constraints for your project.

(100 words)

|  |
| --- |
|  |

UML use case diagram (2 marks)

Insert the Use case diagram for your project.

## Requirements specification (4 marks)

**End-user requirements**

Identify a maximum of 6 end-user requirements for your project.

|  |  |
| --- | --- |
|  | The end-users of the solution should be able to… |
| EU1 |  |
| EU2 |  |
| EU3 |  |
| EU4 |  |
| EU5 |  |
| EU6 |  |

**Functional requirements**

Identify a maximum of 24 functional requirements for your project.

It is recommended that this includes a maximum of:

* 8 functional requirements that relate to the Advanced Higher concepts
* 8 functional requirements that relate to the integrated technology
* 4 functional requirements that relate to input validation
* 4 additional functional requirements (if required).

|  |  |
| --- | --- |
|  | The solution is required to… |
| FR1 |  |
| FR2 |  |
| FR3 |  |
| FR4 |  |
| … |  |

Project plan (2 marks)

Insert the final version of your project plan including timings.

List any resources needed to implement your solution.

# Design of the solution

The design stage of your project should take between 10 and 12 hours, including time to revisit and adapt as the project progresses.

**Design of Advanced Higher concepts** (6 marks)

Insert the design of Advanced Higher concepts identified during your analysis.

Your design should refer to relevant end-user and/or functional requirements.

## Design of integration (4 marks)

Insert the design of the integration identified during your analysis.

Your design should refer to relevant end-user and/or functional requirements.

## User interface design (5 marks)

Insert the design of the user interface.

Your user interface design should show intended input screens and output screens. You should indicate the planned input validation and underlying processes.

Your design should refer to relevant end-user and/or functional requirements.

## Overall design (5 marks)

**Input Validation**

Insert the design of input validation.

Your design should refer to relevant end-user and/or functional requirements.

**Additional Requirements**

Insert the design of any additional requirements identified in your analysis.

Your design should refer to relevant end-user and/or functional requirements.

# Implementation

The implementation stage of your project should take between 15 and 18 hours, including time to revisit and adapt as the project progresses.

The full code for your project can be added to your submission as an appendix at the end.

Use this section to provide evidence of each specific requirements. All evidence should be clearly labelled to refer to relevant end-user and/or functional requirements.

## Advanced Higher concepts (10 marks)

Insert evidence of the Advanced Higher concepts you have implemented in your solution.

You should refer to relevant end-user and/or functional requirements and, where necessary, should include ‘before’ and ‘after’ evidence to show that these concepts work correctly.

## Ongoing testing of Advanced Higher concepts

List any on-going testing carried out when implementing the Advanced Higher concepts.

You should describe any significant problems encountered and how these issues were resolved.

|  |  |  |  |
| --- | --- | --- | --- |
| **Functional Requirement(s) being tested** | **Describe any issues encountered** | **Resolution of issues** | **Any references used (if required)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Implementation of integration (4 marks)

Insert evidence of integration with one other technology that you have implemented in your solution.

You should refer to relevant end-user and/or functional requirements, and include screenshots to show this working

## Ongoing testing of integration

List any on-going testing carried out when implementing the integration.

You should describe any significant problems encountered and how these issues were resolved.

|  |  |  |  |
| --- | --- | --- | --- |
| **Functional Requirement(s) being tested** | **Describe any issues encountered** | **Resolution of issue** | **Any references used (if required)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Overall/Other/Additional implementation (5 marks)

**Implementation of input validation**

Insert evidence of implemented input validation.

You should refer to relevant end-user and/or functional requirements.

**Implementation of additional requirements**

Insert evidence of any additional implementation for a functioning project.

Refer to the end-user and functional requirements this meets.

## User Interface Implementation (3 marks)

Insert screenshot evidence of the implemented user interface.

This evidence should be clearly labelled and should refer to relevant end-user and/or functional requirements.

## Description of new skills and/or knowledge (4 marks)

|  |  |  |
| --- | --- | --- |
| **New skill/knowledge** |  |  |
| **Functional Requirement(s) requiring new skill/knowledge** |  |  |
| **Why this new skill/knowledge was necessary** |  |  |
| **How you applied this new skill/knowledge to your project** |  |  |
| **Resources used to research and develop this skill/knowledge (if required)** |  |  |

# Testing the solution

The testing stage of your project should take between 7 and 9 hours.

## Comprehensive test plan (6 marks)

**Test plan for final testing**

| **Test Number** | **End-user/ Functional Requirement to be tested** | **How it will be tested (including values if required)** | **Expected Result** |
| --- | --- | --- | --- |
| Test 1 |  |  |  |
| Test 2 |  |  |  |
| Test 3 |  |  |  |
| Test 4 |  |  |  |
| Test 5 |  |  |  |
| … |  |  |  |

**Persona and test cases**

Provide a description of the characteristics of one persona and the test cases that will be used to test the program.

|  |  |  |
| --- | --- | --- |
|  | **Characteristics of Persona** | **Test case(s) for this persona** |
| **Persona** |  |  |

## Evidence of requirements testing (6 marks)

For each planned test, provide screenshot evidence of your testing.

| **Test Number** | **Screenshot evidence** |
| --- | --- |
| Test 1 |  |
| Test 2 |  |
| Test 3 |  |
| Test 4 |  |
| Test 5 |  |
| **…** |  |

## Results of testing (3 marks)

Describe the results of testing using the persona and test cases described in the test plan.

(150-300 words)

|  |
| --- |
|  |

# Evaluation

The evaluation stage of your project should take between 2 and 3 hours.

## Fitness for purpose (3 marks)

Describe how your solution matches all requirements in your requirements specification. (400 to 600 words)

|  |
| --- |
|  |

Describe the results of your testing. Describe the results of your testing. You should reflect on what happened during final testing, discuss what went well and identify any tests that didn’t work as expected. (200-300 words)

|  |
| --- |
|  |

## Future maintainability (1 mark)

Describe how the project allows for future maintenance. (150-250 words)

|  |
| --- |
|  |

## Robustness (1 mark)

Describe the robustness of your solution. (150-250 words)

|  |
| --- |
|  |