Assessment Task for HSC SDD

**Title**: Developing a solution

**Student Number/Name:**  

**Submission Instructions**

In addition to school assessment policy

* *Assessment must be submitted in full* [*www.dingotech.net*](http://www.dingotech.net) *Moodle webpage*
* *Hard copy materials must be handed directly to classroom teacher*

**Marker: Mr Dingle Signature: Date:**

**Grade/Mark:**





**Comment:**

# Formal Details

## Outcomes Being Assessed

* **H3.1** identifies and evaluates legal, social and ethical issues in a number of contexts
* **H4.2** applies appropriate development methods to solve software problems
* **H4.3** applies a modular approach to implement well-structured software solutions and evaluates their effectiveness
* **H5.2** creates and justifies the need for the various types of documentation required for a software solution
* **H5.3** selects and applies appropriate software to facilitate the design and development of software solutions
* **H6.2** communicates the processes involved in a software solution to an inexperienced user
* **H6.4** develops effective user interfaces, in consultation with appropriate people

## Cross Curriculum Links

### Collecting, analysing and organising information

### Communicating ideas and information

### Planning and organising activities, working with others and in terms

### Using mathematical ideas and techniques

### Using technology

### Solving problems

# Task Details

## Task Rubric

In your project you will be assessed on how well you

* Demonstrate ability to deconstruct a problem
* Communicate ideas and information using provided modelling tools
* Organise information in a sophisticated and cohesive response
* Provide sophisticated solutions to problems and issues.
* Apply effective testing and evaluation methods
* Provide maintenance for a created solution

## Task Description

|  |  |
| --- | --- |
| **1. Define the problem** |  |
| 1. Works directly with a client to determine needs, objectives and feedback 2. Analyses the given problem and examines appropriate solutions | **8 Marks**  **7 Marks** |
| **2. Plan the solution** |  |
| 1. Justify the selected solution 2. Produces plans and designs for the given solution | **5 Marks**  **10 Marks** |
| **3. Implement the solution** |  |
| 1. Develops and evaluates with the client, a solution which reflects the choices made in the planning stage 2. Develops appropriate and sufficient user documentation | **12 Marks**  **8 Marks** |
| **4. Testing the solution** |  |
| 1. Creates a formal testing plan 2. Performs testing plan, documents and implements outlined changes while programming for future maintenance | **5 Marks**  **10 Marks** |
| **5. Create a professional package** |  |
| 1. Keep’s a well thought out and detailed diary 2. Create a formal and professionally presented solution | **7 Marks**  **10 Marks** |

# Marking criteria

## Task 1a) *Works directly with a client to determine needs, objectives and feedback*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Able to document all aspects of the client’s problem * Demonstrates the need for consistent meetings with client and presentations of current progress * Demonstrates an outstanding ability to attain and use client feedback to assist with the defining, planning, implementation and testing phases * Uses a vast number of methods to document interactions with client * Client provides initial, progressive and final assessments of the solution | 7-8 |
| * Demonstrates the need for multiple meetings with client and presentations of current progress * Demonstrates an ability to attain and use client feedback to assist with the defining, planning, implementation and testing phases * Uses different methods to document interactions with the client | 3-6 |
| * Demonstrates a limited understanding for the need for consistent client interactions * Documents some interactions with the client | 1-2 |

## Task 1b) *Analyses the given problem and examines appropriate solutions*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Understands the need and great level of detail that problem definitions are required to have * Uses a vast number of personal and formal methods to document and assist in the definition of the problem * Includes the client a number of times during the definition process to ensure the validity of the definition | 5-7 |
| * Understands the need for a problem definition * Uses a number of methods to document and assist in the definition of a problem * Includes the client some times during the definition process to ensure the validity of the definition | 2-4 |
| * Demonstrates a limited understanding for the need of a problem definition | 1 |

## Task 2a) *Justify the selected solution*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Demonstrates an outstanding ability to plan for a given problem which include multiple solutions * Determines which is the most feasible/foreseeable solution for the client * Demonstrates an outstanding ability to research pre-existing solutions against the proposed solution | 4-5 |
| * Determines which is the most feasible/foreseeable solution for the client * Compares the outlined solution against pre-existing software solutions | 2-3 |
| * Outlines a solution which should meet the client’s needs | 1 |

## Task 2b) *Produces plans and designs for the given solution*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Produces a formal plan which is feasible and outlines every aspect of the problem including planning, implementation and testing * Demonstrates an extensive knowledge of system documentation including personal and formal methods to help increase the understanding of the solution | 7-10 |
| * Demonstrates a sound knowledge of system documentation including personal and formal methods to help increase the understanding of the solution * Demonstrates an sound ability to plan most aspects of a given problem | 4-6 |
| * Produces a plan for a solution which will meet the client’s given problem | 1-3 |

## Task 3a) *Develops and evaluates with the client, a solution which reflects the choices made in the planning stage*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Solution completely reflects the definition, plans and designs that were outlined prior to development * Source code contains extensive formatting and intrinsic documentation * Solution is professionally developed to meet the needs of the client * Demonstrates extensive programming knowledge and skills * Solution is modular | 10-12 |
| * Solution reflects most of the definition, plans and designs that were outlined prior to development * Source code contains extensive formatting and intrinsic documentation * Solution is well developed to meet the needs of the client * Demonstrates sound programming knowledge and skills * Solution is somewhat modular | 6-9 |
| * Solution reflects most of the definition, plans and designs that were outlined prior to development * Source code contains formatting and intrinsic documentation * Demonstrates some programming knowledge and skills | 2-5 |
| * Solution does not meet the needs of the client | 1 |

## Task 3b) *Develops appropriate and sufficient user documentation*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Demonstrates extensive understanding for the need for user documentation * User documentation is extremely user friendly and appropriate * User documentation created is sufficient and not overwhelming in quantity * Demonstrates the ability to use numerous forms of user documentation (including external and online help) | 6-8 |
| * Demonstrates an understanding for the need for user documentation * User documentation is user friendly and appropriate * Uses some of forms of user documentation to present to the user | 2-5 |
| * Creates some user documentation | 1 |

## Task 4a) *Creates a formal testing plan*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Demonstrates an extensive ability to plan and perform formal solution testing * Understands the need for different forms of solution testing * Provides sufficient time to complete solution testing | 3-5 |
| * Creates a basic testing plan | 1-2 |

## Task 4b) *Performs testing plan, documents and implements outlined changes while programming for future maintenance*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Completes the testing plan outlined * Documents all bugs and changes recommended by testers * Implements all of the changes recommended * Ensures that source code is designed to assist in maintenance programming * Involves the client directly in the testing process | 8-10 |
| * Completes most of testing plan outlined * Documents most bugs and changes recommended by testers * Implements most of the changes recommended * Involves the client in the testing process | 4-7 |
| * Documents some bugs and changes recommended by testers * Implements a few changes recommended * Involves the client in the testing process | 1-3 |

## Task 5a) *Keep’s a well thought out and detailed diary*

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| --- | --- |
| **Criteria** | **Marks** |
| * Demonstrates extensive knowledge for the purpose of a project diary * Diary is well kept, thought out and productive * Diary is capable of being used by another team member * Diary outlines the process of development from beginning to end | 4-7 |
| * Diary contains a number of useful notes * Diary outlines some processes during development | 1-3 |

## Task 5b) *Create a formal and professionally presented solution*

|  |  |
| --- | --- |
| **Criteria** | **Marks** |
| * Solution is complete * Solution has a very professional feel to every aspect * Solution is present professionally for the client * Solution’s interface is extremely intuitive and all functions are easy to access * Demonstrates an extensive ability to create a formalised solution for a client | 7-10 |
| * Solution partially complete * Solution has a well-designed feel to every aspect * Solution is present professionally for the client * Solution’s interface is extremely intuitive and all functions are easy to access | 3-6 |
| * Solution is started * Some aspects of the solution are professional | 1-2 |

# Assessment Student Evaluation

## At the time of submission

*Circle a number (****1*** *= strongly disagree to* ***5*** *= strongly agree)*

This is my best work **1 2 3 4 5** I was organized **1 2 3 4 5**

I understood the task **1 2 3 4 5** I took notice of the marking guidelines **1 2 3 4 5**

This assessment took me **0-1 2-3 4-5 6-7 8+** hours to complete.

**Next time I will**

# Assessment’s Tasks

This is a summary of the tasks required to complete this project.

1. Find a client with a problem to be solved
2. Create a problem definition which outlines the client’s problem
3. Outline alternative solutions
4. Justify the problem’s solution
5. Create relevant documentation to support the creation of a solution
6. Construct applicable documentation to support the implementation of the solution
7. Test documentation before implementation
8. Implement solution based on created documentation
9. Create a test procedure for the project
10. Carry out test procedure, documenting the process
11. Report on the test outcomes and intended changes
12. Implement and document intended changes
13. Final review with client evaluating the solution

In every stage of this project the more effort and the more tools that are access the better. Here are just some quick ideas for you think about when working through your project:

* Client Interviews: Write down your thoughts on paper notes, tape record the interviews, video record interviews. Include everything you can.
* Defining the problem: Don’t just write about it, record your voice and thoughts, research on the Internet and record your findings
* Project diary: Use a voice recorder to jot down ideas, frustrations or things that you must come back to.
* Testing process: Video record some sessions of testers and have them tell you the recommended changes.
* Professional documentation: Create a website, ads, flyers, presentation videos, etc. for your project to provide a more professional feel.
* User documentation: Use tutorials made in Microsoft Word or Microsoft PowerPoint, otherwise make video tutorials with screen recordings, have demonstrations of how to install, use and delete the application. Create a YouTube channel for your application (just ensure the teacher can find it), etc.
* Paper: If you don’t like hard copies, scan it in – just printing pages won’t make the project more professional.
* Ensure the teacher can find everything: With all the work you do things can be become small and possibly hard to find. Ensure you place everything into a logical folder, a good structure could be:
  + Client folder
    - Every file when working with the client
  + Defining folder
    - Every file for defining
  + Planning folder
    - Every file for planning
  + Implementation… you get it
* DON’T THROW ANYTHING AWAY – no matter how small it is, it’s still work