Strand B: Solution Overview

IB Computer Science

Internal Assessment

Brief

What does B include?

- A **Record of Tasks** (ROT) file *
- Design document which includes:
  - Test plan (for success criteria)
  - Brief summary of methods etc (if applicable)
  - A design of the solution;
    - **Detailed** Flowcharts *
    - Graphical visualisations of output *

Word count: ~500 (* *denotes exclusion*)

Marks

Marks	Description
0	The response does not reach a standard described by the descriptors below.
1–2	The record of tasks and the design overview, including an outline test plan, are limited. From this information it is difficult to see how the product was developed.
3–4	The record of tasks and the design overview, including an outline test plan, are partially complete. They provide a basic understanding of how the product was developed.
5–6	The record of tasks and the design overview, including an outline test plan, are detailed and complete. From this information it is clear how the product was developed.

ROT

Basically your time planning.

You absolutely must use the template.

CRITERION B: RECORD OF TASKS

	Candidate:				
Task number	**Planned action**	**Planned outcome**	**Time estimate**	**Target completion date**	**Criterion**
1	Initial discussion with advisor – Comp Sci teacher	Ideas approved by advisor: Mr Coetzee	10 minutes	28th June 2014	A
2	Preliminary discussion with Peter	Peter outlined the basic problem and requirements for me to address	½ hour	29th June	A
3	Second discussion with Peter	Solutions discussed and *Java* was chosen as programming language	20 minutes	1st July	A
4	Third discussion with Peter	First draft designs completed and outcomes agreed on	½ hour	5th July	B

Complete as required

Test Plan

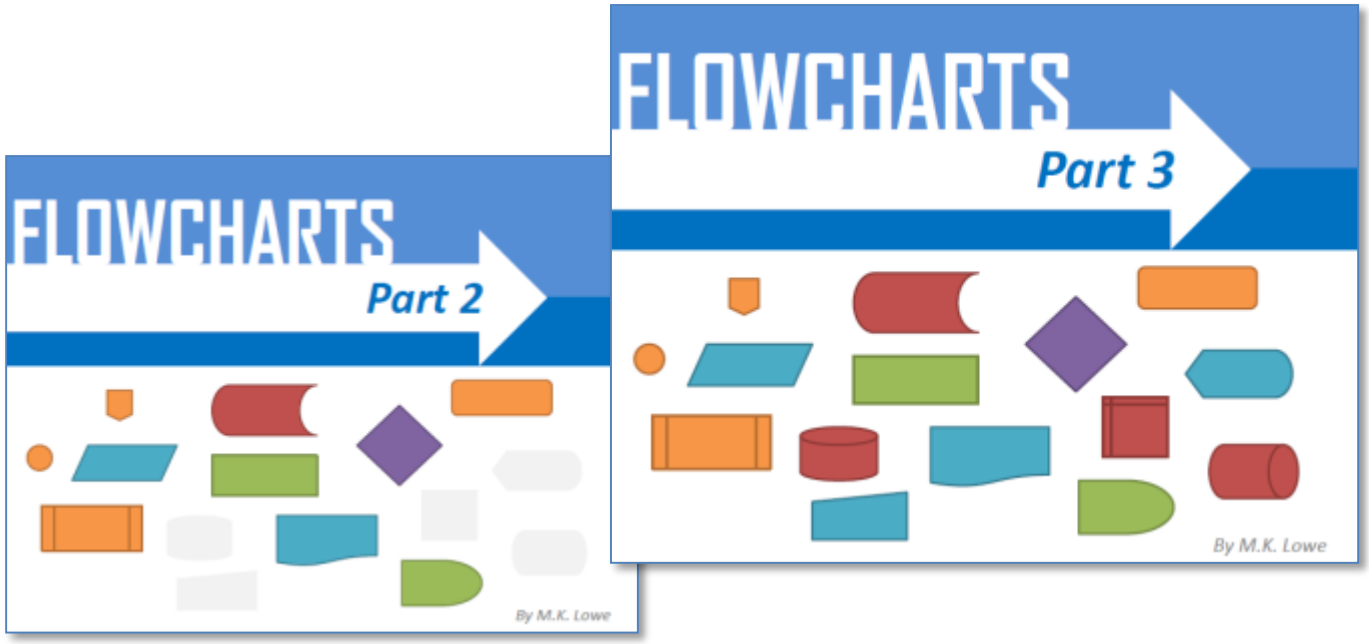
- Must simply test your success criteria, does not have to be extensive.

Test Type	Nature of Test	Example
Upon starting the program, the menu should come up	Check that menu is correctly displayed	*"To add a resident enter 1"*
Check that the menu works	The menu should direct the user to the correct option	User enters *"1"* *"Enter new resident ID"*
Check that the program stops whenever "q" is inputted	Input "q" at any point in the program	User enters "q" "Process completed"
Check that the search name method works	If there are multiple names with the same surname, the program should ask for the first name	User enters *"smith"* Program outputs *"Smith, May"*
Check that the search name method allows a name to be searched regardless of the case of the letters	Using the search option, search for a name, varying the case of the letters	User enters *"smITH"* Program outputs *"Smith, May"*
Check that the resident is stored in the database	After adding the resident, check that the resident has been added using the search resident method	Use the search a resident option on the menu, e.g enter "smith"
The program loops back to the menu when finished with	Run through an option and check it loops back to the	Search a resident, e.g. "smith" then see if

These are all from the success criteria in A.

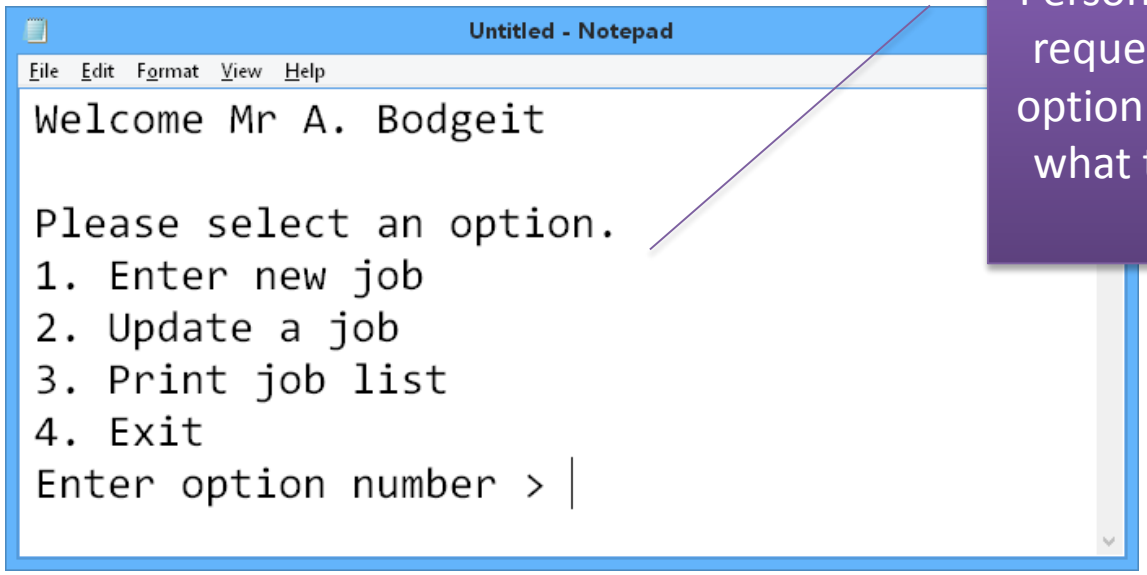
Flowcharts

- Should show all processes in your program. Refer to the flowchart guides. Ensure it is thorough and detailed as this is where you likely obtain top marks.



Graphical visualization

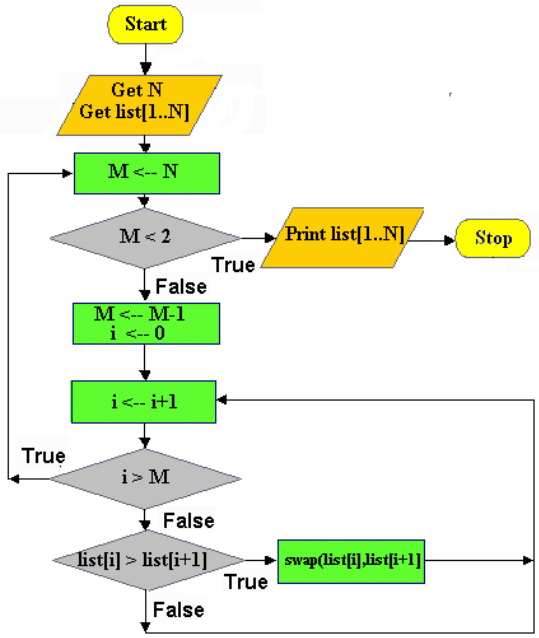
- Design in what your output will look like. Use speech bubbles to lightly annotate.



Personalised greeting for user as requested in consultation, with option fields that clearly indicate what the user can do next with the program.

Explanation of key algorithms

- Have short descriptions (with flowcharts/system charts where relevant) to show the moderator how you plan on solving the 'complicated' bits of your project.




```
Algorithm SelectionSort
Inputs A: Array of Integers;
       N:Integer;
Variables i,j,min: Integer;

Begin
     for i:=0 to N-2 do
       min:=i;
       for j:=i+1 to N-1 do
         if (A[j]<A[min]) then min:=j fi
       od
       swap(A,i,min);
     od
End
```