

Shun Lee Catholic Secondary School
Computer and Information Technology (2016-2018)
Coursework Assessment (Paper 3) – SBA Handbook

(A) Project Description

Shun Lee Catholic Secondary School is going to organize a dinner for alumni to celebrate its 35th Anniversary. The school will develop a program for the dinner registration and generating a seating plan. During the data collection stage, the personal information of the participants will be input into the program, as shown in the following example.

- Name of participant
- Year of graduation
- Sex
- Age
- Occupation
- Number of seats required

Task 1 (Design and Implementation)

At the end of the registration period, the program should generate a seating plan for the dinner and store it in a text file. You should clearly define the seat allocation rules and the other system parameters such as table size. Some possible seat allocation rules are as follows:

- Grouping family members together
- Balancing male and female participants
- Grouping participants of similar age
- Grouping participants of same graduation year
- Grouping participants of similar occupation

The program should follow at least TWO seat allocation rules at the same time when generating a seating plan. You should note that there may not be a perfect seating plan that follows all the stated rules. An approximate seating arrangement is acceptable. You may consider some of the following key factors when designing the program:

- Data structure
- Variable declaration and initialization
- Data collection, input and validation
- Data processing
- Program output
- Interface of the program
- Modularity
- Reusability

Write a program for the school and create a presentation or documents to briefly describe components involved in designing the program.

Task 2 (Testing and Evaluation)

Conduct a test of the program. Collect and record the feedback and results of the test.

Either (i) make one major change in the program and illustrate the corresponding improvement.

or (ii) describe how the scope of the program could be extended.

Create a presentation or documents to illustrate the development of the program. You may consider some of the following items:

- Pros and cons of the program design
- Test cases
- Unit test
- System test
- User acceptance test
- Algorithm optimization

(B) Timeline for the Coursework (Tentative)

Time	Content to be completed
Jan 17 – Feb 17	Algorithm and Database Design
Feb 17 – May 17	Program Implementation
Early Jun 17	Submission of program and report for Task 1
July 17 – Oct 17	Testing and Evaluation
Early Nov 17	Submission of program and report for Task 2

** Further details regarding the date and time will be announced prior to the submission.*

(C) Assessment Criteria

1. Design & Implementation 25
2. Testing & Evaluation 15

Full mark = **40**

(D) Process Behaviour

To ensure fairness and encourage positive process behaviour, students who fail to hand in reports during any stage of the project will risk mark deduction. Formal warning would be given to students who fail to hand in reports on time without prior approval or proper excuse.

Late for	Penalty
<= 5 days	● Deduct 5 marks.
> 5 days or No submission	● Deduct 5 marks. ● Mark according to the last submitted interim report.

* *No penalty is considered if the student is absent on the date of submission with medical certificate or if prior application with justified reasons, such as competitions, piano examination and family affair is submitted in advance.*

(E) Plagiarism

All reports submitted are expected to be the student's own work. Students should always take great care to distinguish their own ideas and knowledge from information from other sources, including not only published material, but also information and opinions gained directly from other people.

Starting from 2014, students must complete and sign a declaration form (see Appendix 1) at the beginning of the school year in which SBA is undertaken to declare that all SBA tasks/assignments completed are their own and to agree to adhere to a code of honor in completing the SBA for this subject.

(F) Queries against Assessment Decision

Students should submit their queries against assessment decisions within 3 calendar days upon receiving the assessment results. A panel consisting of the subject panel and a representative from the academic committee will review the student’s work and resolve the queries and inform the student the reviewed assessment decision within 10 calendar days after lodging the queries.

(G) Assessment Criteria (Suggested by HKEAA)

Design and Implementation: Give a description of the design for the solution for such problem. Demonstrate results and evidence of the implementation process.

Performance	Description
<p style="text-align: center;">High (17 – 25 Mark)</p>	<ul style="list-style-type: none"> ● Creates an innovative design for the solution ● Demonstrates effective ICT skills in the appropriate use of resources ● Demonstrates appropriate ICT skills coherently ● Demonstrates effective and comprehensive data/information collection, capture and input ● Demonstrates effective and comprehensive data/information verification and validation ● Demonstrates effective, efficient and comprehensive data/information processing ● Creates an appropriate output format of the deliverables that can easily be tested as a solution to the problem

Middle (9 – 16 Mark)	<ul style="list-style-type: none"> ● Provides some new ideas in designing the solution ● Demonstrates ICT skills in the use of resources with understanding ● Demonstrates appropriate ICT skills adequately ● Demonstrates reasonable data/information collection, capture and input ● Demonstrates reasonable data/information verification and validation ● Demonstrates reasonably good quality of data/information processing ● Creates an output format of the deliverables that can be tested as a solution to the problem
Low (0 – 8 Mark)	<ul style="list-style-type: none"> ● Produces a plain design of the solution ● Uses resources with relevant ICT skills ● Demonstrates appropriate ICT skills occasionally ● Demonstrates an awareness of the necessary data/information collection, capture and input ● Demonstrates an awareness of the necessary data/information verification and validation ● Carries out data/information processing relevant to the problem ● Creates an output format of the deliverables that can be partially tested as a solution to the problem

Testing and Evaluation: Perform testing and evaluation of the deliverables.

Performance	Description
High (11 – 15 Mark)	<ul style="list-style-type: none"> ● Records test results comprehensively according to the testing plan with quality metrics ● Demonstrates a comprehensive methodology in testing and evaluation ● Suggests and explain improvement made as a result of testing ● Conducts corrective/preventive actions logically ● Evaluates the effectiveness of the deliverables relative to the environmental factors ● Presents the findings using a systematic style and appropriate terminology ● Organises and present the objectives and original thought effectively ● Reflect the student’s learning process effectively
Middle (6 – 10 Mark)	<ul style="list-style-type: none"> ● Records test results generally according to the testing plan ● Demonstrates a general methodology in testing and evaluation ● Suggests some practical improvement ● Conducts some corrective/preventive actions appropriately ● Evaluates the effectiveness of the deliverables relative to the partial environmental factors ● Presents the findings with a comprehensible and sensible style ● Expresses ideas and visions successfully ● Reflects the student’s learning process
Low (0 – 5 Mark)	<ul style="list-style-type: none"> ● Records some test results ● Demonstrates a basic methodology in testing and evaluation ● Attempts to improve the deliverables ● Attempts to evaluate the effectiveness of the deliverables ● Presents the findings with text and illustration

Hong Kong Diploma of Secondary Education Examination
Student Declaration Form for School-based Assessment (SBA)
Completed in the School Year 20__ - __

Notes:

1. This form should be signed by senior secondary students at the beginning of each school year in which SBA is undertaken. Only one form needs to be completed by each student.
2. The completed form should be retained by the school until the end of the public examination cycle.

School Name: _____

Student's Name: _____

Class: _____ Class No: _____

Important Reminder to Students:

1. It is of utmost importance that academic honesty is maintained in SBA. Students are forbidden to indulge in any malpractice when completing their assessments.
2. Student can make reference to sources but must not plagiarise when completing their work. They should write in their own words and should not simply copy others' words or ideas and present them as their own. If necessary, they can quote or make reference to something written by another author in their work, as long as they ensure that these quotes or references are identified and the sources properly acknowledged.
3. Students are advised not to quote excessively in their work, as this would mean that they themselves could only make a minimal contribution to that piece of work and consequently they would be likely to get low marks from their teacher.
4. Students can make reference to the booklet "*HKDSE Information on School-based Assessment*", (<http://www.hkeaa.edu.hk/en/sba/>). Some examples on how to quote and acknowledge sources properly are provided in the booklet.
5. Students will be subject to severe penalties for proven plagiarism. The HKDSE Examination Regulations stipulate that a candidate may be liable to disqualification from the subject concerned or the whole of the Examination, or suffer a mark or grade penalty for breaching the Regulations.

I certify that I have read the above Reminder and declare that:

- All SBA tasks/assignments work to be completed for all subjects in this school year will be my own work.
- My SBA work will not include any materials which have been copied from other sources without acknowledgement.
- I am responsible for ensuring that the work produced is my own and will bear the consequences for committing plagiarism or other malpractice in SBA.

Student's signature: _____ Date: _____