B4- Major Project

Grade / Criteria	A	B	C	D	E
Knowledge and Application					
Analysis and Synthesis					
Evaluation and Communication					

Authorship Statement:

Sign one of the following two statements regarding the authorship of this task.

I _____ certify that I have logged all assistance or advice I have obtained to complete this task and have included the log in the task submission.

_____

I _____ certify that my response to this task is completely my own work.

_____

Brisbane Boys' College

Class: _____

Student Number:

_____

Student's Name:

_____

Teacher's Name:

_____

IPT Year 12
Semester 2, 2017
Major Project:
Item B4

Summative,
Unsupervised,
Individual,
Class/ Own Time,
Open Book

Date Issued:
Monday, 10 July 2017

Date Due (Phase 1):
Friday, 21 July 2017

Date Due (Phase 2):
Friday, 25 August 2017

(End of lesson)

Duration:
7 weeks

Task:

Given the scenario identified below, use the information system development cycle to design, develop and evaluate an information system that would be of use to a staff member at BBC. The following guidelines will assist you to document the project and provide an accompanying explanation to your client, teacher or staff. This explanation of 1000–1500 words is to include the problem identification, conceptualisation, formalisation, implementation, testing and evaluation of the database design.

For the purpose of this assignment, the documentation for the project is to be submitted in two phases. Phase One must contain the documentation for stage 1, stage 2 and stage 3. Phase Two must contain the documentation for stage 4, stage 5 stage 6 and the personal activity log.

Due Dates: See due dates on front page

All documentation is to be word-processed, however, where documentation is hand written, the writing must be neat and easy to read. Diagrams and layout designs may be drawn by hand or created using diagramming software.

Guidelines

Stage 1 Identification

The information system you are to create could aid a teacher to keep track of students who hand in drafts of work, it could allow recording of student achievements, it could allow recording of students who misbehave or do well in class, it could be used to help co-ordinate a co-curricular activity, or could maintain an attendance system. You may approach one of your teachers to be your client and suggest a system that would be useful. User of the system must be able to:

- provide information to enquiries and generate reports which can be sent to others
- find and recall information such as past activities, events, or performance
- add, delete and edit existing data in the system

Documentation must include the problem definition, rationale, and assumptions.

Stage 2 Conceptualisation

As the developer, consider the project's goals and specific objectives, including:

- How will the system's success be assessed?
- What are the specific objectives of the project given the requirements of the client?
- Is there any examples of data the system will store? How will the client and others use the data?
- The interface of the system's design must consider the human–computer interaction (HCI) issues.

Stage 3 Formalisation

Specify a solution based on the requirements obtained from the user. Documentation should include:

- conceptual schema: elementary sentences, draft of conceptual schema diagram, surplus entities to eliminate, uniqueness constraints and mandatory roles to add
- relational schema: apply Optimal Normal Form (ONF), list tables, and data dictionary
- The menu structure for the application and actions to be taken by different menu items.
- Identifying User Interface design standards to be followed (e. g menu layout, colours, messages, placing of fields etc)
- A diagram of the screens and menu structure
- Design of all Forms and Reports to be used, including tables, colours, messages, descriptions, headings, borders, pop-up menus, placing of fields, etc.

Stage 4 Implementation

In this stage constructing the database application commences. This will include constructing tables, queries, forms, tables, reports and other components needed for the application.

Stage 5 Testing

Produce a test plan that checks for a range of scenarios and identifies what the expected results should be. Implement this plan with test data and record the actual results.

Stage 6 Evaluation

Evaluate how well the project achieved the stated objectives and goals, and include recommendations for further development and maintenance of the system.

Ensure the database application is populated with data prior to submission.

Note:

Documentation of each stage is to be evident within a personal activity log. This includes your planning, interpretation and analysis of problems, design of solutions, conclusions and recommendations.

Task Conditions:

- Read the standards descriptors and strive for the highest quality result.
- Written components of all assignments should be word processed in a formal style following the BBC Style Manual available on Blackboard. Use carefully constructed complete sentences with correct punctuation, grammar and appropriate vocabulary.
- You should keep a copy of your assignment (hard-copy or electronic) at least until your results have been returned. Double check that your Blackboard upload has worked. In particular, ensure that a valid file has actually been attached to the upload item.
- Assignments must be submitted on or before the due date unless an extension of time has been granted before the due date. As per the Student Record Book, if a student is unable to attend school on the due date due to illness, then the Senior School Student Services must be telephoned and informed of the absence. Upon return to the College, the student is to hand the assignment directly to the teacher with a medical certificate covering the period of illness.
- The QSA Policy Statement on late submission and non-submission of assessment states that in the event of late submission of an assessment item, a judgement of student assessment will be made against the relevant standards descriptors using the evidence available to the teacher on the due date. Non-submission of an assessment item may result in either of the following:
    - a level of achievement may **not** be awarded for a course of study
    - a level of achievement may still be awarded, but a **reduced** number of semesters of credit may be awarded for the course of study
- Normal college penalties for late or non-submission of an assessment item will still apply. This includes the referral of the student to the Head of Teaching and Learning for consideration for a Saturday morning detention.
- Failure of technology (eg., computers, printers, memory cards, etc) is a personal problem and will not be accepted as an excuse for late or non-submission of assignments.
- No breaches of copyright will be allowed. In other words, no text, images, sounds or movies are to be downloaded from the internet, scanned from a book or otherwise electronically reproduced without acknowledgement unless they are copyright-free. In particular, all graphic items are to be your own work.
- To validate the authorship of your assignment, your teacher must observe you working on your assignment in class. Assignments not substantiated by work in class may not be accepted or not marked in their entirety. However, this does not mean that work cannot be done at home.

Standards associated with Criteria for this Assignment (Major Project: B4- Major Project)

Dimension	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E+	E	E-
Knowledge and application	The student work has the following characteristics: • detailed and effective application of set processes to solve simple and familiar problems.			The student work has the following characteristics: • effective application of set processes to solve simple and familiar problems.			The student work has the following characteristics: • application of set processes to solve simple or familiar problems.			The student work has the following characteristics: • elements of set processes to partially solve simple or familiar problems.			The student work has the following characteristics: • elements of set processes used.		

Dimension	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E+	E	E-
Analysis and synthesis	The student work has the following characteristics: • detailed interpretation and analysis of problems and situations from multiple perspectives			The student work has the following characteristics: • interpretation and analysis of problems and situations			The student work has the following characteristics: • analysis of problems and situations			The student work has the following characteristics: • identification and classification of problems or situations			The student work has the following characteristics: • restated problems or situations		
	• designed and developed effective solutions to unrehearsed or complex problems.			• designed and developed solutions for unrehearsed or complex problems.			• designed and developed partial solutions for unrehearsed or complex problems.			• designed or developed elements of solutions for unrehearsed or complex problems.			• superficial elements of unrehearsed or complex problems.		

Dimension	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E+	E	E-
Evaluation and communication	The student work has the following characteristics: • comprehensive testing of processes and solutions, application of self-determined and prescribed criteria, reasoning and evidence to draw conclusions and make supported recommendations.			The student work has the following characteristics: • reliable testing of processes and solutions, application of prescribed criteria, reasoning and evidence to draw conclusions and make supported recommendations			The student work has the following characteristics: • testing of process or solutions, application of prescribed criteria, reasoning or evidence to draw conclusions and make recommendations			The student work has the following characteristics: • elements of testing of processes or solutions to draw inferences			The student work has the following characteristics: • elements of testing		
	• comprehensive construction of documentation and fluent presentation of information using suitable communication conventions to convey meaning appropriate to the context.			• effective construction of documentation and effective presentation of information using suitable communication conventions to convey meaning appropriate to the context.			• construction of documentation and presentation of information using communication conventions to convey meaning.			• presentation of information using elements of communication conventions.			• presentation of information.		