

2. Problem Definition (Week 1)

Write up a clear **outline** of the non-computerized process that would be replaced with your computerized information system, explaining what and how it is currently done:

Detail what the current information system does:

- Explain what data is put into the system and what information is used as output.
- Describe the **flow of information** through the system.
- Explain who is responsible for entering data and for whom the output reports are prepared.
- Include an **information flow diagram (IFD)**, which explains visually how the systems. It should be possible to understand this diagram without reference to the plain English explanation.
- Write a **summary** of the problems with the current system.

3. Solution Specification (Week 2)

Detail what the proposed information system will do:

- Explain what data will be put into the system and what information is required as output.
- Describe the **flow of information** through the system.
- Explain who will be responsible for entering data and for whom the output reports will be prepared.
- Include an **information flow diagram (IFD)**, which explains visually how the system will work. It should be possible to understand this diagram without reference to the plain English explanation.
- Provide an outline of a possible website solution
- provide sample layouts for input and output.
- Write a summary of the problems that this solution will solve and the further benefits it will provide. Will it be an efficient solution to the problem?
- Write up a **clear list of the objectives** for your finished information system

4. Formalization (Week 3-4)

Your specification should demonstrate a logical design path to the development of your information system. All formalization steps will be done as an in-class supervised exercise.

You should use:

- A list of identified **Entities** for the the information system.
- A statement of **Elementary Facts** for the information system in the accepted format as demonstrated in class.
- A **Conceptual Schema Design** of the information system created in *VisioModeller* based on teacher-supplied, correct elementary sentences.
- **Optimal Normal Form** table definitions for the information system in the accepted format as demonstrated in class.
- A **Data Dictionary** which defines the table structure of the database including, table and field names, datatypes, field lengths (where necessary), and primary and foreign keys.

5. Database Implementation (Week 5)

Implement the teacher-supplied, correct data dictionary in MySQL using PhpMyAdmin from your login at <http://mis.eq.edu.au>. Create the tables and populate them with appropriate data, making sure that all aspects of the information system are named in a way that facilitates easy comprehension, including **appropriate naming** of tables and fields. Make sure you input sufficient data to test you interface appropriately. **Include** the SQL export file data with your final report.

6. Website Template (Week 6)

Templatae the user interface as a dynamic data-driven web site application using PHP, HTML, Javascript, and CSS. Make sure that all aspects of the interface are set out in a way that facilitates easy comprehension, including accessible fonts and colour schemes and **commenting** of any code written to implement the interface. **Include** copies of all code used, along with **sample reports and screen shots** printed from your finished information system in your final report. The prototype information system should be available for testing on the internet at <http://www.uranganshs.eq.edu.au/home/yourid> by the due date.

8. Evaluation (Week 6)

Write up an **evaluation** of your information system project, pointing out its strengths and where you see there might be weaknesses. Mention what improvements you would like to make to your information system. **Measure your success directly against your stated objectives**. You do this by referring to the objectives you set during specification and evaluating your success in meeting each of those objectives. Include your evaluation report in your final project report.

Include a transcript of your **Blog** (downloadable from BlackBoard) in your final report.

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YEAR 12 IPT IIS MAJOR PROJECT - ASSESSMENT CRITERIA –ITEM J

Knowledge	A	B	C	D	E
Definition of Purpose and Solution Specification	Documents these aspects of project very well. Clear precise language used; very few errors in grammar or vocabulary. Very neat, presentation and layout.	Documents these aspects of project well. Clear language used; minor errors in grammar and vocabulary. Neat, effective presentation and layout.	Language used has a number of grammatical and spelling errors and is not always easily understood. Satisfactory presentation and layout.	Many errors in language used that confuses the reader and/or poor presentation and layout.	Very limited or no documentation. Minimal effort made to present the project in an effective manner.
Design process Use of design software. ONF, data dictionary	Understands the design process very well and uses the CSD/IFD software very effectively.	Understands the design process well and uses the CSD/IFD software effectively.	Understands some aspects of the design process well and uses the CSD/IFD software reasonably well.	Limited understanding of aspects of the design process. Difficulty using the CSD/IFD software.	Little understanding of the design process or CSD/IFD software demonstrated.
Implementation using MySQL/PhpMyAdmin	Masters the software very effectively. Database created and populated very successfully.	Uses most aspects of the software effectively. Database created and populated successfully.	Uses some aspects of the software effectively. Database created and populated with some success.	Uses few aspects of the software effectively. Database partially created.	Difficulty in using the software. Little or no progress on database.
Site template using HTML/CSS	Site template reflects the design specifications very well.	Site template mgenerally reflects the design specifications well.	Parts of the site template are reflect the stated design.	Site template incomplete	Very little or no progress on the site template.
R & D	A	B	C	D	
Design – Specification and Objectives	Explains IS function and structure very effectively will in a clear sequence with very achievable goals. Very clear and appropriate objectives stated	Explains function and structure of the IS effectively in a clear sequence with achievable goals. Clear and appropriate objectives stated	Explains IS function and structure with some success, but sequence and goals not always clear. Clear objectives stated	IS functioning poorly explained. Objectives unclear	
Design – IFD/CSD	The IFD and CSD demonstrate excellent logic and are very easily interpreted. All appropriate Entities are identified. Elementary Facts are very well defined. CSD constraints are applied with almost no errors.	The IFD and CSD demonstrate sound logic and are easily interpreted. Most appropriate Entities are identified. Elementary Facts are mostly well defined. CSD constraints are applied with only minor errors.	The IFD and CSD demonstrate satisfactory logic and can be interpreted reasonably easily. Appropriate Entities are identified. A number of Elementary Facts are well defined. CSD constraints are applied with some errors.	A number of errors in logic make the IFD and/or CSD difficult to interpret. Some Elementary Facts are defined.	
Design – Website Structure Style Sheets	Site template design is very appropriate.	Site template design is mostly appropriate.	Site template design is reasonably appropriate.	Little of the site template design is appropriate or effective.	
Documentation: Elementary Facts, IFD, CSD, Database, HTML/CSS code	All aspects have very appropriate naming/identifier schemes and code is very well commented. White space is used very effectively.	All aspects have mostly appropriate naming/identifier schemes and code has useful commenting. White space is used effectively.	Some aspects have recognizable naming schemes and code has some commenting.	Some aspects have attempts at recognizable naming schemes.	
Evaluation	Evaluates IS strengths and weaknesses very effectively, relating directly to stated objectives. Writes a very effective project journal that regularly identifies problems encountered and often records solutions.	Evaluates IS strengths and weaknesses effectively, with some reference to stated objectives. Writes a project journal that identifies problems encountered and records solutions.	Satisfactory evaluation of IS, but without relating effectively to objectives. Writes a project journal that identifies problems encountered.	Evaluation is too general and demonstrates little understanding of the evaluation process. Limited journal entries.	

Marks: K = R&D = Comment: