



In Semester Assignment Fall 2016

Module: **System Analysis and Design Concepts-COMP 1004**

Level: 5

Max. Marks: 100(
Scaled down to 50
Marks)

Handout Date:
6th week

Duration :
7 weeks

Submission date:
7Th January 2017

ID NUMBER					

Presentation dates :
14th week

Instructions to Student:

- Present the relevant references /citation at the end of document
- Marks will be awarded for the content written in your own words
- If two or more documents contain duplicate information marks will be deducted as per plagiarism policy.

Objective: This is a **group case study (Maximum four students in each group)** aimed to give the student an overview of an Information System environment and to apply analysis and designing techniques during system development.

Outcomes:

1. Understand and define information systems requirements
2. Discuss the need for initial investigation and information requirement analysis
3. Apply the tools of structured analysis within a process of systems development
4. Describe the different phases of systems design
5. Evaluate appropriate input and output design considerations

Tasks: Read the following scenario, understand and present your response in a document **not more than 15 pages.**

ABC Consultants are starting a *new company* and they have hired your project team to develop *an Information System* which will automate one or more business functions. You will conduct all activities and prepare all deliverable products associated with the *System analysis and design process*. At the conclusion of your study, you will prepare a comprehensive, high-quality assignment report containing your results. You will also design *a working prototype model* (Design only) of your proposed system using a *suitable interface* of your choice.

Case Study- Game Store Oman

Game Store LLC is a small Game rental store. The store lends Xbox/PSP games to customers for a fee, and purchases its games from a local supplier. A customer wishing to borrow a game provides the empty box of the game they desire, their membership card, and payment – payment is always with the credit card used to open the customer account. The customer then returns the game to the store after watching it. If a loaned game is overdue by a day the customer's credit card is charged, and a reminder letter is sent to them. Each day after that a further card is made, and each week a reminder letter is sent. This continues until either the customer returns the game, or the charges are equal to the cost of replacing the game. New customers fill out a form with their personal details and credit card details, and the counter staff gives the new customer a membership card. Each new customer's form is added to the customer file. The local game supplier sends a list of available titles to Game Store LLC, who decide whether to send them an order and payment. If an order is sent then the supplier sends the requested games to the store. For each new game a new stock form is completed and placed in the stock file.

The assignment is to be carried out by teams (Maximum 4 students in a team).

I. Doing the Assignment

Assume that the report is being prepared for management. This means that you need to be clear and concise about your recommendations and that you should present the basic ideas and recommendations in the report simply and with no extraneous information. Other relevant information and supporting evidence is to appear in appendices.

Your write-up should include information on the following items:

1. An **introduction** describing the organization you chose to study, the problem you identified and the process you followed during your study. Choose how small or large a problem you will tackle during your feasibility study. Try to gather more information for such scenarios from Books/Internet. You can also collect information from organization having similar types of system. These may include your contacts, others with responsibilities related to the feasibility study.
2. The basic **alternatives** you considered and the criteria you used to evaluate them. Define **alternatives** for conducting business and for automation. Define the criteria you will use to evaluate and choose among these alternatives. Your criteria should include cost/benefit analysis, where applicable. Conduct an evaluation of the alternatives and choose the one that looks most promising. Conduct an assessment of unusual circumstances or special attention items. This may involve special requirements for particular employees or customers of the organization.
3. Explain different Input/output designs of the system and the processes involved in them. Study relevant documents. This may involve reading online documents, memos, documentation on similar systems and new objectives/needs understanding the functional and non-functional requirements of the proposed system. Context Diagrams / DFDs.
4. A **recommendation** to proceed or not to proceed with an information system development project, with supporting arguments.

5. A **conclusions** section that summarizes the contents of your report and reiterates your recommendation.

6. One or more **appendices** which describe in more detail (i) the organization for which the study was conducted, (ii) the process used to gather information (interviews, review of written material, etc.), (iii) the names and phone numbers of people you talked to, details of any analyses you conducted, and the like.

Case study work proposal submission: 10 marks (Deadline – 19th November 2016)

Submit a work proposal for this case study, which must include:

- Selecting the team member
- What team member will do – Identifying minimum three tasks each team member will do and the dates by when they will be completed
- Understanding of deliverables – brief information on deliverables
- General overview of proposed plan - initial understanding of solution to all the tasks
- Resources identified
- Only one team member must submit the Case Study work proposal in the form of word document in Moodle. Each team member will get the same marks for work proposal.

II. Marking Scheme

Marks for this assignment will depend on the following factors:

- **Case study work proposal submission (10 marks)**
Submit a work proposal for this case study by 19th November 2016, on Moodle.
- **Problem identification (10 marks):** How well have you researched the problem, and the organization you are dealing with by talking to people, reading documents, etc. How hard is your problem (e.g., studying an existing system for a large organization is harder than studying the possibility of a new system for a small store).
- **Alternatives and criteria (10 marks):** Have you considered obvious alternatives? Interesting ones? How well defined are your criteria and how thorough is your evaluation? Are your recommendations backed by appropriate evidence? Are they reasonable?
- **Supporting evidence (20 marks):** The supporting evidence you include in terms of figures, tables, cost/benefit analysis etc. Organization of appendices. Usefulness of supporting information. How well does the evidence support the recommendations?
- **System Prototype (16 marks):** Develop a sample system displaying major functionalities of system and forms showing Input / Output details.
- **Context Diagram and DFDs (30 marks)**
 - Context Diagram - 10 marks
 - Level 0 DFD - 10 marks
 - Level 1 DFD - 10 marks
- **Referencing (4 marks) :** Proper referencing of the document with valid sources.

- **Viva / Presentation:** There are no separate marks for viva and presentation. The assignment will be judged based on the knowledge and understanding of the student.

Note:

(i) Zero marks will be awarded if student is absent for viva. Individual viva will not be allowed.

(ii) All the marks will depend on viva voce during presentation.

Your assignment should include a cover page indicating your name, title of work, course, date, and name of the instructor. Make sure that drawings are clear and legible. Keep in mind that you will be judged on visual appearance, in addition to grammatical correctness and quality of writing. The text must be well-structured, with paragraphs, full sentences and all the other features of a well-written report. Your report must *not* consist of itemized lists of points. The report should not exceed 15 pages (not counting references, appendices, figures or tables.) Text font size should be 12 points.

Instructions:

- You are required to work on case study as a team and work by dividing the tasks.
- Answer all the given questions/tasks.
- One consolidated case study report and presentation slides should be submitted from each group.
- The report should contain the following:
 - Title Page (includes the names of each group member)
 - Table of Contents
 - Answer for tasks 1-2.
 - References (book, journals, internet resources used in preparing the presentation report/slides)
- A group will have one presentation schedule and all members should be present, unless due to illness. Otherwise, no marks will be awarded to the absent member. The absent member will be scheduled for another presentation and should present the whole case study.

Guidelines

Follow the guidelines mentioned below for your case study.

- Case study reports/answers should be **typed** by group.
- **Handwritten presentation report will not be accepted**

- Presentation report/slides should have a Title Page. Title Page should contain the following information.
 - Assignment Name
 - Class
 - Student name
 - Student ID
- It should have Table of Contents
- Use page numbers if you are preparing a report.
- Presentation report should be typed in your own words using **Times New Roman font size 12.**
- Presentation report heading should be with **Font Size 14, Bold, Underline**
- Use diagrams and examples to explain.
- Library and internet resources can be used for finding information.
- Marks will be awarded for the content written in your own words.
- Copy paste from the Internet is strictly not acceptable.
- Reference should be given as per CU Harvard Style
- Students must upload the completed assignment through Moodle which is integrated with Turnitin to detect any plagiarism cases. No hardcopy will be submitted.

Rules & Regulations

- If any topic or diagram of case study is found copied from the other then marks will be deducted from both case studies.
- The purpose of case study is to do some research work so you can consult books in Library or use internet or computer magazines or any other source.

Plagiarism Policy

As per MEC policy, any form of violation of academic integrity will invite severe penalty. Plagiarised documents, in part or in whole, submitted by the students will be subject to this policy.

A. First offence of plagiarism

- a. A student will be allowed to re-submit the assignment once, within a maximum period of one week. However, a penalty of deduction of 25% of the marks obtained for the resubmitted work will be imposed.

- b. Mark deduction: When the work is resubmitted, the marking will be undertaken according to the marking criteria. In compliance with this policy, the 25% deduction is then made on the marks obtained. For example, in an assessment that carries a maximum of 50 marks, suppose a student were to obtain 30 marks for the resubmitted work, the final marks for that assessment will be 22.5 (after deducting 25% of the marks actually obtained for the resubmitted work).
- c. Period of resubmission: The student will have to resubmit the work one week from the date he or she is advised to resubmit. For example, if the formal advice to resubmit was communicated to the student on a Sunday (latest by 5 pm), the student will have to resubmit the work latest by next Sunday 5 pm.
- d. If the re-submitted work is also detected to be plagiarized, then the work will be awarded a zero.
- e. Resubmission of the work beyond the maximum period of one week will not be accepted and the work will be awarded a zero.

B. Any further offence of plagiarism

- a. If any student is again caught in an act of plagiarism during his/her course of study (either in the same module, same semester or in any other semester), the student will directly be awarded zero for the work in which plagiarism is detected. In such cases, the student will not be allowed to re-submit the work.

C. Guidelines

- a. Type 1: In case plagiarism is detected in any component or part submission (submitted at different times) of one assessment (assignment), the deduction in marks will be applicable for the whole assessment (assignment), even if only the component or part submission alone needs to be resubmitted.
- b. Type 2: In case plagiarism is detected in a group assessment, all students of the group will be considered as having committed an act of plagiarism irrespective of whether plagiarism is on account of the act of all or a few or only one member. The policy will then be applied to all students.
- c. Type 3: Combination of Type 1 and Type 2: In case plagiarism is detected in any component or part submission (submitted at different times) of a **group assessment (assignment)**, the deduction in marks will be applicable for the whole assessment (assignment), even if only the component or part submission alone needs to be resubmitted. All students of the group would be considered as having committed an act of plagiarism irrespective of whether plagiarism is on account of the act of all or a few or only one member. The policy will then be applied to all the students of the group.

- d. Type 4: Variation of Type 1 and Type 2: In cases where the assessment consists of components or part submissions that could be a group assessment component (e.g. group assignment) and an individual assessment component (e.g. individual reflection), the following will be applicable:
1. If plagiarism is detected in the group assessment component, all students of the group will be considered as having committed an act of plagiarism, irrespective of whether plagiarism is on account of the act of all or a few or only one member. The policy will then be applied to all students of the group. In such cases the group assessment component will be resubmitted as per the policy.
 2. If plagiarism is detected in the individual assessment component, the individual assessment component will be resubmitted as per the policy. The policy will then be applied to that student alone.
 3. In both cases (a) and/or (b), the deduction in marks will be applicable for the whole assessment (assignment).

D. Amount of similar material

- a. The total amount of similar material in any form of student work from all sources put together should not exceed 30% (including direct quotations).
- b. The total amount of quoted material (direct quotations) in any form of student work from all sources put together should not exceed 10%.
- c. The total amount of similar material in any form of student work from a **single source** should not exceed 7 percent. However, cases having a similarity of less than 7 percent in such cases may still be investigated by the faculty depending on the seriousness of the case.
- d. If faculty member find enough merit in the case of a student work with a similarity (with a single source) of more than 7 percent as not a case of plagiarism, the faculty member should provide detailed comments/remarks to justify the case.

Late Submission

Penalty for late presentation & report submission - 5% of the maximum mark specified for the assessment will be deducted for each working day.

Presentation documents submitted beyond a period of one week after the last date of submission will not be accepted and will be marked as zero for that assessment.

Note: Must follow case study instructions.

Individual Contribution Grid

Please identify the tasks done by each team member and put ✓ against each category if student has contributed and X if no contribution is done. You can also add some text if you want to give some explanations for a particular task. This grid will be added in the appendices.

Deliverables	Student1	Student2	Student3	Student4
Work Proposal				
Problem identification				
Alternatives and criteria				
Supporting evidence				
Context Diagram and DFDs				
Valid referencing				
System Design				

Signatures:

Student1

Student2

Student3

Student4

Assessment Grading Criteria

90-100% Outstanding	<p>Focused and comprehensive engagement with the question, showing evidence of in-depth understanding of the issues. Extremely clearly structured and demonstrating a coherent argument throughout.</p> <p>Evidence of wide, independent reading.</p> <p>No obvious errors in referencing or grammar or syntax as appropriate.</p>
80-89% Excellent	<p>Detailed identification of the issues with evidence of clear understanding of the issues. Well-structured with evidence of independent reading supporting the argument.</p> <p>Very few errors in referencing or grammar or syntax as appropriate.</p>
70-79% Very good	<p>Identification and very good understanding of issues in the assessment. Full answers to all questions/task. Very clear argument with relevant examples used to illustrate response. Clear evidence of reading outside the module list.</p> <p>Few errors in referencing or grammar or syntax as appropriate.</p>
60-69 % Good	<p>Good understanding of the issues. Engages directly with the question. Clear argument with good examples used to support it.</p> <p>All main points and important issues of the question/task covered. Some evidence of reading outside the module list</p> <p>Some small repeated errors in referencing or grammar or syntax as appropriate.</p>
50-59% Competent	<p>Generally sound understanding of basic theory and concepts. Content relevant to the question/task. Competently deals with main issues. Reading based on main texts or materials, but not always fully utilised in supporting argument.</p> <p>Some repeated errors in referencing or grammar or syntax as appropriate.</p>
40-49% Basic	<p>Some evidence of understanding of basic concepts/issues. Content broadly relevant but with limited or little application of theory. Almost totally descriptive.</p>
30-39% Retrievable fail	<p>Some learning outcomes and / or assessment criteria not met.</p> <p>Superficial treatment of issues. Some is relevant to topic set. Material merely repeats taught input. Lacks understanding of basic theory or concepts. Possible use of extensive quoted passages.</p> <p>Evidence of sufficient grasp of learning outcomes to suggest that the participant will be able to retrieve the module on resubmission.</p>
20-29%	<p>No learning outcomes fully met.</p> <p>Little evidence of attempts to engage with module materials.</p>
10-19%	<p>Little attempt to engage with assignment brief and has not met learning outcomes.</p> <p>Inadequate demonstration of knowledge or understanding of key concepts, theories or practice.</p>
0-9%	<p>No real attempt to address the assignment brief or learning outcomes</p>

System Analysis and Design Concepts module has a group case study and presentation with 50% weightage. The outcome of this work is system design. The group submits one project report and an oral presentation will be carried out to evaluate their work. This also provides an opportunity for student to defend their design and the student who actually contributed towards the assignment can show a better performance than other candidates during viva.

Evaluation guidelines:

- In the marking grid mentioned below, each student will be awarded the same mark for proposal and referencing. (14 marks)
- Knowledge and viva voce, presentation skills and understanding of the assignment. Each student will be evaluated based on their presentation skills. Each candidate’s knowledge and understanding of work done will be measured by asking questions from each task as per the assignment.(86 marks)

Case Study Evaluation Grid

Student ID:

Student Name:

Session:

Deliverables	0-2	3-5	6-8	9-10	Mark
Work Proposal	No proposal or fewer details	Proposal with only features	Proposal With features and Plan	Complete with all details.	
Deliverables	0-2	3-5	6-8	9-10	Mark
Problem identification	Incomplete/ Weak/Plagiarized research on finding/researching on the problem / organisation.	Partially correct research on finding/researching on the problem / organisation.	Satisfactorily research on finding/ researching on the problem / organisation.	Completely and accurately research on finding / researching on the problem / organisation.	
Deliverables	0-2	3-5	6-8	9-10	Mark
Alternatives and criteria	Incomplete/ Weak/Plagiarized -obvious alternatives? - Interesting ones? -criteria -evaluation? -recommendations	Partially correct -obvious alternatives? -Interesting ones? -criteria -evaluation? -recommendations	Satisfactory - obvious alternatives? -Interesting ones? -criteria -evaluation? -recommendations	Complete and accurate -obvious alternatives? - Interesting ones? -criteria -evaluation? -recommendations	
Deliverables	0-4	5-9	10-14	15-20	Mark
Supporting evidence	Incomplete/ Weak/Plagiarized -figures, tables, cost/benefit analysis -appendices. -Usefulness of supporting information.	Partially correct - figures, tables, cost/benefit analysis -appendices. -Usefulness of supporting information.	Satisfactorily - figures, tables, cost/benefit analysis -appendices. -Usefulness of supporting information.	Complete and accurate -figures, tables, cost/benefit analysis -appendices. -Usefulness of supporting information.	
Deliverables	0-5	6-12	13-18	19-30	Mark
Context Diagram and DFDs	Incomplete/ Weak/Plagiarized application of the	Partially correct application of the required Diagrams	Satisfactorily applied the required Diagrams	Completely and accurately applied the required Diagrams	

	required Diagrams			
Deliverables	0	2	4	Mark
Valid referencing	No referencing	Some external source specified Given but not proper	Proper referencing done	
Deliverables	0-4	5-8	9-12	13-16
System Design	No Design or fewer details	Design with only features	With features and input / output	Complete with all details.
	Total Marks			
	Penalty		<u>Signature of the Teacher</u>	
	Final Marks			