

Data flow diagram essay sample



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Note: For multiple-choice questions, select the best answer. Incorrect answers will be marked as zero. No marks will be awarded for any explanations you may offer. Multiple choice (2 marks each)

a. Under what condition would you be more likely to recommend a prototyping approach to systems development as opposed to a waterfall approach? 1. For a large system with multiple integration points to other organizational systems 2. For a system that is intended to solve a problem that is difficult to define precisely 3. For users who are relatively inaccessible during development 4. For a situation where there is a high level of management support

b. There are several good reasons why RFPs are used. Which of the following options is not supported under an RFP? 1. Specifying system requirements in RFPs tends to eliminate unnecessary features. 2. Each vendor receives the same set of RFP requirements, so they are all on equal footing. 3. The time and effort that goes into the creation of the RFP translates into a successful implementation. 4. The issuing of an RFP tells vendors there is more than one vendor involved in the selection, so you have a better negotiating position.

c. Interviewing users is a key method for gathering data during requirements analysis. Suppose that you found yourself engaged in a project where you had only limited access to users. What data-gathering method would be the next best method for gathering user data about the current system?

1. Document review

2. User surveys

3. Joint application design

4. Prototyping

d. Which of the following statements about logical modeling in systems development is true? 1. Logical modeling is best suited to the system design phase. 2. The main objective of logical models is to specify the technical details. 3. Logical models are good tools for communication between the systems specialists and end users. 4. Logical models are rigid and do not encourage creativity.

e. A data flow diagram is a common tool for process modeling. Which of the following statements about constructing a data flow diagram is correct? 1. A context diagram is often referred to as a level 1 diagram that shows the boundary of the system. 2. A context diagram shows all input, output, and data stores of a system. 3. A data flow named “ Application Request” would most likely be considered a physical flow. 4. A “ Customer Database in MS Access” would most likely be considered a physical data store.

f. ER diagrams are used for data modeling. Which of the following statements is true of ER diagrams? 1. An ER diagram is a physical data modeling tool that documents how the data will be implemented in a database. 2. The easiest way to construct an ER diagram is by examining the current databases that store the data. 3. When the rules of constructing an ER diagram are followed properly, there should be only one solution to any problem. 4. An ER diagram may be initiated through DFDs, or could be derived from current practices that are not stated as formal rules.

g. Which of the following is not a systems design activity?

1. Specifying user requirements
2. Deciding how multi-user systems will be implemented
3. Designing screens and reports for the users
4. Determining the program modules

h. A new system needs to be tested for its acceptance when it is being implemented. Which of the following statements about acceptance testing is correct? 1. Stress testing can only be done when the system is fully implemented for the entire company in order to test its capability to handle high volumes of use. 2. Performance testing examines whether the new system can operate in different environments. 3. Testing should not be conducted throughout the life of the system because testing tends to disrupt the stability of the system. 4. Recovery testing can only be conducted when the system fails naturally.

i. In reviewing a failed IS project, which of the following would you most expect to observe?

1. Users not sufficiently involved in requirements determination
2. Poor choice of programming language
3. Top management not engaged in acceptance testing
4. Consultants used to develop the system

j. System enhancement is often necessary after the system is implemented.

Which of the following statements about system enhancement is true? 1. When system enhancement is triggered by a regulation change, the cost-benefit assessment is no longer necessary. 2. In order to maintain data

integrity, it is better to restrict system enhancement to application programs development, rather than to extend it to the restructuring of files or databases. 3. System enhancement can be considered a small-scale system development project. 4. Change management does not apply to system enhancement, since the system is already in place so there should be little resistance to change. Question 2 (30 marks)

You work as a business analyst for a fast-growing biotechnology company focused on reducing the need for pesticides in agriculture. The company is in the middle of implementing a new system for billing and customer management. The project has been challenging from the start: the business case met the initial hurdles for the company to invest, but costs have escalated as the project has evolved. The initial specifications for the project omitted some key functionality and thus the development costs increased by about 50% to accommodate the missing functionality. Application development also took longer than expected because of staffing problems with the outsourcing firm that was hired to do the work.

This meant renewing some software licenses for the old system, at an additional cost of \$10, 000. The project is finally coming to a close. The application has passed the user acceptance testing stage, and the hardware is in place. But a conversation with the lead developer has just alerted you to the possibility of an added \$25, 000 expense for the project. During the development of the system, the team decided that the existing database platform was inadequate to the needs of the system and that it would be beneficial to develop the application in a more modern database environment – MS SQL Server. What they did not realize was that the license <https://assignbuster.com/data-flow-diagram-essay-sample/>

cost of the new software was nearly \$25, 000. This is particularly challenging, because the company is about to release a brand new product. The new product results from about eight years of R&D effort and will simultaneously reduce the need for pesticides by 70% and increase crop yield rates by 35%.

Such a product will be beneficial both locally, where concern over the environmental impact of pesticide use is high, and abroad, where the increased yield rates could be a tremendous benefit to farmers in developing countries. But the commercialization costs for this new product have also been higher than expected, and the company's cash flow is squeezed. Paying the additional \$25, 000 will result in a delay in getting the new product to market. The developer has offered a temporary solution.

He has suggested that he could install the SQL Server software on the company's network from his own company's licensed copy. " Or," he says, " I can just virtualize another SQL environment on my server and you can connect to that." While, technically, this violates the licensing rules from Microsoft, the developer believes it would be okay to do because it would be for a short period of time — just to avoid the cash flow issues — and thus Microsoft would still get the sale at the end of the day. " It's not like pirating software," he says, " and Microsoft can surely afford to wait a couple of months for licensing without any impact on its business." Required

Write a memo to your manager explaining the situation, and outlining your position on the following: a. Whether the developer's proposed solution is appropriate or inappropriate and why b. What course of action you suggest

The memo should be one or two pages in length with proper headings and format. You will be evaluated on the content, format, and professionalism of the memo. Question 3 (50 marks)

Read the case, “ Too Far Ahead of the IT Curve” in the casebook. Peachtree Healthcare is an organization facing a choice in its IT standardization future: buy a tried-and-true modular enterprise system, or put its trust in a newer SOA (service-oriented architecture) framework. Max Berndt is the CEO of Peachtree Healthcare, and would like his CIO, Candace Markovich, and his CFO, Tom Drane, to help him with this question. Required

Analyze the case and prepare a report for Max Berndt. Use the following suggested case-analysis format and section headings to address the requirements listed within each section.

- i. EXECUTIVE SUMMARY (3 marks) — Summarize the choices facing Peachtree, including mission, objectives, key issues, and recommendations.
- ii. CURRENT SITUATION (10 marks) — Analyze Peachtree’s current information system with respect to its ability to meet the organization’s business needs and add value. What IT strengths and weakness currently face Peachtree as it tries to evaluate business goals with IT technology?
- iii. CRITERIA (5 marks) — Identify the criteria Peachtree should use to evaluate the implementation of its system so that IT strategies support key business objectives, and why these are important.

- iv. ALTERNATIVES AND RECOMMENDATION (15 marks) — Using the criteria determined in step iii, analyze the alternative paths and decisions Max is considering for a new information system. What should the strategy to select an information system for Peachtree include? Make your recommendation (s), including the strengths and weaknesses of each considered system.

What options do you think organizations should consider? Which options do you recommend? It is important you make your recommendation rather than just describe options. v. RISK MANAGEMENT PLAN (15 marks) — Explain the actions and risks involved in implementing your recommendation. How can the IT systems provide value to Peachtree Healthcare patients? Employees? Stakeholders?

The risk management plan should identify the risks in each recommendation, in response to the business, IT, and medical perspectives. You should provide clear justification for your arguments in the alternatives and recommendation section. Note: Two marks are allocated for using the proper case format, and for clarity, coherence, and professionalism in writing. For an example of case writing and analysis, review the two practice exams (found under Exam Preparation). Also note that pasting pictures (for example, GIF files, copies of PowerPoint slides, and so on) into your assignment files can result in very large files, and may cause problems in delivering your assignments to the marker. To ensure your assignment reaches your marker, please keep the file size below 1MB. 100