

CISC 225 - System Analysis and Design

Chapter 2 Assignment

1. **How does strategic planning influence day-to-day business operations? Why is it important for systems analysts to understand a company’s strategic plan?**

How strategic planning influences a company’s day-to-day operations that the decisions made by planning ahead can break down a large project into manageable steps to produce a product. Why its important for system analysts to understand a company’s strategic plan is because system analysts can use that plan to focus on the larger project.

1. **What is a SWOT analysis? Prepare a SWOT analysis of your school or your employer.**

A SWOT analysis is a analysis that focuses on evaluating the strengths, weaknesses, opportunities, and threats to a company or division and can be used to see what goals are unrealistic or unobtainable.

SWOT Analysis for Harrisburg University of Science and Technology:

Strengths:

* Strong focus on STEM education
* Modern Facilities and technology
* Strong Partnerships with industry
* Experienced faculty and staff

Weaknesses:

* National recognition
* Limited offerings outside of STEM degrees

Opportunities:

* Expansion of programs outside of STEM degrees
* Increased funding for research

Threats:

* Competition from established universities
* Economic struggles affecting enrollment and funding

1. **What is an effective way to assess user requests for additional features and functions?**

An effective way to assess user requests are to use a system request form to intake the requests.

1. **What are four types of feasibility? Which type focuses on total cost of ownership? Which type is influenced primarily by users?**

The 4 types of feasibility are economic, operational, technical, and schedule feasibility. The type that focuses on the total cost of ownership is economic feasibility. Meanwhile the one that is influenced by users are operational feasibility.

1. **Describe the six steps in a typical preliminary investigation. Why should an analyst be careful when using the word *problem*?**

The six steps in a preliminary investigation is to understand the problem/opportunity, then define the project scope and constraints, preform fact-finding like analyzing organizational charts or conduct interviews, analyze project usability, cost, benefit, and schedule data, then evaluate the feasibility of the project, and finally present results and recommendations to management. Why an analyst should be careful when using the word problem is because it can cause a person to receive only negative responses about the project/system since it has a negative connotation.

1. **What is project scope? What are constraints? Provide an example of a mandatory, external, future constraint. Also provide an example of a discretionary, internal, present constraint.**

Project scope is the defined features and functions of a project that is needed to be considered “completed”. Constraits are requirements or conditions that the system must satisfy to be considered “complete”. An example of a mandatory, external, and future constraint is that a human resources information system must provide statistics on hiring practices. An example of a discretionary, internal, and present constraint is that a new website must be operational by March 1st.

1. **Identify and briefly describe five common fact-finding methods.**

Five common fact-finding methods are to analyze organizational charts to understand the functions and identify people that you may want to interview, conducting interviews to get information from a selected group, review system documentation and check if its accurate, observe the current system in operation to see how workers preform their tasks and trace input and output documents to a system, conducting a user survey can be used to get a larger population of people to gather information, and and analyze the data that you have received.

1. **What fact-finding methods are well-suited for complex technical issues? Which might be appropriate for the pursuit of new, cutting-edge features?**

The fact finding method that is well-suited for complex technical issues is to conduct interviews and then evaluate those interviews because it allows you to ask in depth questions about a system. The one that is most appropriate for adding new features would be to conduct a user survey to get data from a larger population.

1. **What type of tool might a systems analyst use to identify a relationship between two variables? What tool is useful for identifying and prioritizing causes of problems?**

A tool that may be used to identify that relationship between two variables are a scatter diagram. A tool that is useful to identify and prioritize causes of problems is a Pareto Chart.