**Zevo Chemical Company**

Zevo is currently reaching the end of the requirements modeling phase of a new inventory control system for their global company. As a systems analyst, you are asked to support his ongoing project.

**Tasks**

1. How would you explain scalability? How would you ensure that scalability has been considered in Zevo's requirements model?
   * To ensure scalability we need to gather information about how much will be input, output, and processed by the system in the future. We need to make sure it will be able to handle bigger volumes of data. We need to determine how much data a system will be held by the system that way we have enough storage space to accommodate a surplus of transactions
   * To do this we can interview the database admin, someone who is aware of the long-term fluctuation of inventory in and inventory out (when the peak months are, etc.), and we also need someone who is aware of the tools we need (software and hardware) to best accommodate the system We can set up a conference and discuss the average amount of data being retained, when the most data comes in, when glitches and system shutdowns have happened and how they were resolved. We could also conduct a survey asking users who have regular interaction with the system to tell us about improvements that can be made to better accommodate them.
2. How would you define total cost of ownership (TCO)? What costs should be included in a TCO estimate?
   * To define the total cost of owning the system we must make sure to take into account the indirect costs (system maintenance, space + utilities costs, hardware and software, personnel hired, training, etc.) as well as the direct costs (research costs, event/meeting costs, cost of tools used on project, etc.). It is critical that we do not underestimate the indirect costs as they can easily accumulate to a greater value than we first realize.
   * We need to make sure we understand who will be using what part of the system, what function each user will have before we even look at software. Gathering this information would lead us into researching what the appropriate hardware for our system. What are we currently using that can be reused without downgrading performance and what will need a full upgrade? We also need to ask what the cost (in time and money) will be in order to train employees on using the system. We always need to keep in mind cost effectiveness that will not down grade quality or performance.
3. Explain why documentation is essential for Zevo's new system, and how documentation can be used during systems development.
   * We cannot always recall back to a conversation in a meeting and sometimes we may miss critical information because we were still thinking about one aspect of the project. For these reasons, it is imperative that we document meetings. From there we gather the system requirements and our objectives that will guide us throughout our development process. Sometimes it can be easy to sidestep one aspect of the requirements and overcompensate in another area that isn’t as relevant, so constantly coming back to that documentation will help keep us on the right track. It will also help us identify possible flaws in the system we may not have considered before.
4. What software tools could you use to develop, publish, and distribute Zevo's systems documentation?
   * To develop Zevo’s documentation they can use Microsoft Excel. It is extremely versatile for the creation of reports and graphs in my opinion. My favorite tool for creating diagrams is Microsoft Access. It is very simple to maneuver after a couple of hours of interaction (maybe even minutes). Those are my go to favorites.
   * For project management I would try to use some of the following, but I have heard of a few websites that are better at creating Gnatt charts and other project schedule tools. The only reason why I would not want to use any exterior tools, is because it can become bothersome to people working on multiple projects, some may forget we are using those tools and rely more on apps that are faster to access.
   * For documentation distribution (such as sharing notes, reports, surveys, etc.) I highly recommend using Google Docs. I really like using Slack messenger or skype right along side this to ease communication and distribution of information. Outlook is another amazing resource used to communicate internally through email. It is very easy to schedule conferences and meetings. It is a lifesaver when trying to keep track of the project schedule.

University of Michigan – Research and Sponsored Projects. *Direct vs. Indirect Costs.* Retrieved from: <http://orsp.umich.edu/direct-vs-indirect-costs>