

Question #1: Using the "information system" definition in the syllabus as a guide, describe one information system that you have worked with.

Respondant 1: Web site is one example. The website is often used by people for accessing information. The website is created with HTML codes that organize information in ways for easy access.

Respondant 2: When I was taking INDE499 with professor Kuttner last quarter in the XML class, the XML language itself is a information system. It organizes your data input, manages your data collection into a database, and output it in a format that other people can use easily.

Respondant 3: Making a purchase on the internet. You tell them what product you want to buy, give them information about yourself, they process the information, bill you and ship your product to you.

Respondant 4: An MRP/ ERP application is a common system used with many companies. This type of application has two parts; the interface (GUI), which the user interacts with and the database. The database is used to store (input) and retrieve data (output). This data can be anything from part numbers, inventory quantities and so on. These system can be used for addition functionality (components and processes) as well; such as accepting orders and placing orders for materials. As an industrial engineer, one must understand the purpose of this type of application as well as possess the knowledge to manage it (database).

Respondant 5: If I am understanding this correctly, EXCEL seems to fit the definition. We type data into a spreadsheet. We program functions into the spreadsheet. The program processes the information and gives a result (answer) for the user.

Respondant 6: I used microsoft access this summer at my job to enter data (# of defects) certain printers demonstrated at Hewlett Packard, We also used Oracle.

Respondant 7: I previously managed University Red Robin's Deterministic Business Management System. This system kept track of the previous 4 weeks data (flow of restaurant, sales, etc.) in graphical and tabular form. I would then in put data for future weeks using the past data as a guide.

Respondant 8: The 'cookies' that are stored on my computer whenever I visit a website is an example of an information system that I have worked with.

What these 'cookies' does is to allow the websites to keep track of my browsing patterns, and thus gaining valuable information on what topics or objects might interests me. With that information, the websites can try to cater to my needs or behaviour, hence providing better service to gain repeat visits or increased loyalty.

Respondant 9: While working for Fluke this summer I developed a Cost of Poor Quality tool for them using their existing Access databases. The tool used data in existing mdb.'s about the quantities of certain types of defects. . I first found out how much these defects cost per defect, and now Fluke can track what types of defects are costing them the most money.

Respondant 10: UW STAR Registration system. You input your student ID number and the quarter you want to register for the courses, the you get your courses added, dropped or changed. Besides, your can get the result of your total credits, your total tuition and any other information you need.

Respondant 11: According the definition in the syllabus, I think the search engine in most internet station is a kind of information system, because when you input some key words,ie, "getting data in", then it would output some relative informaion,ie, "getting information out".

Respondant 12: One summer I was creating a call statistic system for a local phonecompany in Finland. The inputs were unstructured number information from the counters of the phonecentrals. Data was stored in MS Excel sheets and managed by reporting program called PowerPlay. Outputs were graphs that could be browsed through the Internet.

Respondant 13: I have worked with Microsoft Excel. I have put data into the program and make tables and graphs with it.

Respondant 14: I took IS 300 in the business school and we had to work with a case study in Access.

Respondant 15: Recently I have used Microsoft Access to help my parents create a birthday mailing list for their restaurant. The database includes all the information about our customers.

Respondant 16: In this summer, I had worked in a transportation logistics company for two months as a summer job. I have worked with a program that is called Business Management Systems (BMS). During that period, I tried to write a user's guide for it. That program receives data for the transportation transaction and updates the inventory level. That program is written by Oracle.

Respondant 17: I have worked with access software. Access always you to store, manage, and manipulate data into useful information.

Respondant 18: One information system that I have worked with is the management system of the drawing of machine design. It includes the three aspects:1)data collection of the drawing 2)database setup and management 3)data inquiry.

Respondant 19: Company Inventory Database called "Avante". Avante is an Inventory Management database that keeps track of various inventory status on real time basis.

Respondant 20: icI am only familiar with non-computer based info. systems. In my industry of building boats, we look for areas we believe we can improve our production rates. We start by collecting data, which is our current production method. We then layout the building process in front of all affected foremen and managers and ask what ideas they have for increasing production rates. The effect is usually positive and efficiency usually increases.

Respondant 21: During my assistantship at Middle East Tech U., Turkey, we used the Campus-Wide Information System, CWIS, to follow up the freshmen's registration, their add-drops, and approved their registration based on the reports created by the system. The grades were also introduced to the system by the instructors and the students would learn their grades by logging on. Like STAR-Online...

Respondant 22: My Master Degree's thesis deals with an information System about Quality Control. It is designed for the assembly-line of an Auto Manufactory. There are so much information and data produced during the course of car-assembly, such as item-sequence, on-line time, off-line time, operator #, inspect result, etc. It is very important to gather, manage and store these data, in order to ensure the quality.

Following is the structure of the information system I have worked with: Input: getting data from scanners, PLCs, and a MRP2 database through the intranet. Management: Assorting, analysing, accumulating and processing all kinds of data, according to different goals. For example, showing the status of each online car, in order to monitor the assembly quality realtime. Output: Getting information

out in the form of graphics, charts, or tables. According to users' query, the system can print or send information. The system is developed by Visual Basic and SQL.

Respondant 23: Access is one information system I have worked with. It's a set of components and processes to manage raw data to become useful information as the result.

Respondant 24: Writing a program in the C programming class.

Respondant 25: One information system that we all have worked with at the UW, is Star Online. It has all the characteristics of an information system in such that it takes input from the user. It then manages the data, such as class enrolments. Finally it outputs the data for those who request specific information.

Respondant 26: I took supply chain system class last two quarters. By using information system, inventory, customer demand, transportation time, warehouse cost and everything about the system will be collected. By using Information technology such as electronic data interchange(EDI) to combine these data, we can manage the optimum level to produce, the optimum space for warehouse, and the optimum time to satisfy customers.

Respondant 27: I did analyze the data that I got in ME 354 lab using Microsoft Excell and tried to make a real interpretation of those data

Respondant 28: I have already worked on a common information system: the database of a video club. The inputs can be very different: an author name's name, a movie title, a producer's name, a client's phone number...

The outputs can be the availability of the movie wanted, the number of movies from this producer which are already rented, the number of movies taken by a client...

That facilitates the management of the video club.

Respondant 29: Microsoft Excel. At my internship this summer, we used it predict the amount of electricity used for each designated region of the Puget Sound. We entered many constants and variables such as the amount of energy used per hour for one entire day, each hour of everyday of the month, etc. Equations were used to calculate many of the variables.

Respondant 30: An ATM - you input data into the system, it interprets the transaction, and does some action pertaining to the customers request (ex. taking out some money).

Respondant 31: The library's index has thousands of pieces of data that were inputted for the different genres, titles, and authors of books. I used that information to look for the book I wanted, so the library's index would be an information system.

Question #2: Each of the first three objectives listed in the syllabus maps to a variety of work situations in which industrial engineers find themselves. For one of the first three objectives, please describe a work situation that would be an instance of the objective. In other words, please describe a work situation that involves interaction, diagnosis, or evaluation...

Respondant 1: Raw material availability is one example. Using database to keep track of the raw material inventory. When one particular raw material is running low, the operator could immediately order new raw material to fulfill the inventory.

Respondant 2: One instance is when you are setting up a computer network and database for a company. Since every company have a different routine of managing their information, it is important to understand how to set up an information hierachy so the company employees can effectively using existing information/data to aid their work.

Respondant 3: I work for a sheet metal company. We are sent blueprint of structures, we study the prints, then go out to the jobsite take measurements. We then go back to the shop and design and manufacture the product. Finally, we install the product and have it inspected.

Respondant 4: Evaluation. The evaluation of the system is important to keep current and for work to continue smoothly. As an IE we are taught efficiency and reliability. In terms of IS work, a system must work this way. How can a system be improved? To answer this question you must be able to understand why something is not "optimal". Are you using incorrect routers? Or is it other hardware? What types of applications conflict with the most critical ones? These are some types of evaluation questions.

Respondant 5: A simple example of USE is using the cash register at a supermarket. A cashier uses the cash register which keeps tracks of the grocery purchase, the amount tendered then returns a receipt as well as the change amount. The cashier while doing his/her job is using this information system.

Respondant 6: interaction: A company has lots of inventory, a database would be necessary to keep tracked of the inventory. Material handlers need this type of information system to reorder certain parts when they are low.

Respondant 7: INTERACTION:

Most jobs or volunteer positions I have had require using some sort of database to manage large quantities of information. When I volunteered in the Seattle Men's Chorus Office, we used Microsoft Access to manage all of their customers' accounts.

Respondant 8: A work situation that involves interaction is usually related to obtaining customer data. One example of this is asking for the zip code when a customer purchase a product. This is a direct interaction with the customer to obtain information regarding store customer base or coverage.

Respondant 9: I used relational databases all the time in the example I gave above. When linking the list of defects to the raw data to the price list of the defects I had to link the defect_description fields.

Respondant 10: 1. Using credit card

2. When lots of people find something wrong when they use thier credit card, maybe the card can not be accepted by the machine. Then the credit company should check what is wrong with their system.

3. Evaluate: The credit card company uses the different information systems and checkes which one is the

best for the customers convenience.

Respondant 11: For instance, suppose a engineer is supervising the producing process on a automatic line, all the data like the size, shape, color are stored in the database of the control computer, it is necessary for him to input the manufacture requirements first, and then, when he finds something wrong with the automatic producing line, for example, the parts just manufactured are not what they originally expected, he need to make some interaction with the computer, which hosts the information system, and then, he need to do some diagnosis to see if something is wrong with the information system, if yes, he need to repair it and restart the work.

as for the evaluation, I think it is a long period task, when the engineer work on the existed manufacturing information system, sometimes it is called the CAM(computer aided manufacture) they should know what are the advantages and disvantages of the information system and can improve it when possible.

Respondant 12: Interaction (with an infosystem): To get statistical (history or current situation) information about a manufacturing process - bottlenecks etc. Diagnosis (using an infosystem): To analyse "what-if" situations in a manufacturing process -> optimization Evaluation (of an infosystem configuration): Defining a reporting system - what kind of outputs are wanted etc.

Respondant 13: Interaction: An IE would with an information system when inputing data they have gathered. Diagnosis: Problems may arise when an IE is trying to get useable information out of the information system. The IE will have to discover the problem. Evaluation: An IE may need to evaluate whether or not the use of an information system will be of use for the given situation.

Respondant 14: Industrial Engineers may use an information system to track the inventory going in and coming out of a company. In doing so they can see who uses which parts, where they need to be located and when new parts need to be ordered.

Respondant 15: My families restaurant is a work situation that involves the "Use" objective

Respondant 16: Person who plans the inventory level of a plant involves Diagnose. He/She should collect information and analysis it. He/She then would plan whether ask the production line to have more goods to maintain safety stock level or not.

Respondant 17: Using a database that manages inventory levels to determine if a project could be completed with the current inventory.

Respondant 18: the industrial engineer in a big factory whose responsibility is the computer management of the production.

Respondant 19: Evaluation: Recently I've been given a project to look into the status of an old disk duplicator that the production department uses. The Project involves an evaluation of the current status of the machine at hand and possible alternatives to maintain the disk duplication job on hand. The disk duplicator has been utilized for well over its expectancy and may require major repairs to keep it running. However, quite possible we may purchase a new up-to-date disk duplicator for production use if the cost and other associated factors justify. This is an example of the "evaluation" objective where different alternatives and decisions are evaluated based on the related information available. Information System, in this case, will involve informations posted on web sites by various Disk Duplicator manufacturers or documents that can be found online.

Respondant 20: In the above mentioned work situation at times it may be useful to have a computer assist us in our evaluation process. This could be done by entering the amount of hours it takes for each

step of construction and asking a well written computer program if changing the order of construction steps would increase our efficiency.

Respondant 21: An inventory department may make use of a database to keep track of orders, usage of materials, purchases, and arrival of materials. The users of the system would 'use' the system online (by entering order amounts, usages, purchases, arrivals...), and everyone related would know the exact amount of any item in stock. The system would also alert for too few items, etc.

Respondant 22: In the workshop of car-assembly, there are a lot of cars on the production line at the same time. If the automation level is not high, there may be several operators at the same work station. In order to ensure the assembly quality, information system should calculate the percent of qualified or failure operation of each operator during given period. Through these data, we can diagnose where is the bottleneck of the assembly line.

Respondant 23: -manufacturing world- IEs need to use an information system to store and manage data they've collected.

Respondant 24: Diagnose can occur during a meeting at work where people discuss ideas and problems regarding certain issue.

Respondant 25: A lot of an Industrial Engineer's job is based on the diagnosis of problems. If there is an issue with slow production, he or she must diagnose the problem in order to determine how to speed production up.

Respondant 26: In my opinion, getting the real data and managing data by using information system that is programmed by myself is the best way to involve in these three objectives.

Respondant 27: Use: I have a set of data from my quality control project, those data are raw data, so using Excel I tried to calculate the data to get better interpretation result. Diagnose: However, if someone uses a different software or set of equations, the result could be different too, and sometimes might cause a problem, especially as far as the accuracy.

Respondant 28: INTERACTION An industrial engineer may have to use an information system (such as a database) to check if there will be enough parts on time in the factory to increase the number of cars manufactured for instance. He can see what he has to order, when he has to place the orders, how important the orders should be.

Respondant 29: As I mentioned in Q1, we "used" (1st objective) Excel in order to make predictions on the amount of electricity is being used in each particular area. If not for Excel, the planning department would have a difficult time in estimating the best locations to build electric substations without the knowledge of the amount of energy being used.

Respondant 30: At work there is a database that is used to help do quality analysis that I helped to create. Thus I had to do much evaluating, diagnosis, and interaction. We had to know what kind of data was to be collected. In designing the database we had to keep in mind who our users were to make sure everyone could understand and interact with our database.

Respondant 31: If working for a company as an industrial engineer, one must first diagnose exactly what problem he/she is trying to solve by understanding what he/she is trying to accomplish as well as the constraints and parameters of the problem.