CS 309A Database Systems Fall 2017 Dr. Gu

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Narrative

Information Technology Services, commonly referred to as ITS is a department within the college that is in charge of maintaining and fixing the various pieces of technology across campus. While ITS does have its own full time staff they rely heavily on a student workforce for day to day tasks. They provide technological expertise to all faculty, staff, and students on campus. ITS is also in charge of maintaining and updating all the computer labs that are spread throughout campus.

Elizabethtown College has several computer labs across campus. Each with its own set of computers, printers, scanners, and other equipment. These labs provide a vital service to the students and need to be maintained. Since some labs are newer than others, not all labs have the same set of computers or other equipment and need to be handled appropriately. Almost all of the labs are used for classes throughout the year. Several classes require that a specific software be installed on the computers. Therefore ITS needs a way to keep track of what equipment is in each lab and what kind of service that equipment may require.

Each of the labs are managed by several ITS employees. The employees need a way to ensure that all technological issues are dealt with and that every computer has the required software for the classes that use the lab. They also need to know what kind of equipment is in each lab, should any hardware issues arise they would have the make and model in order to perform a diagnostic. Having all this information in an organized database will help the ITS department to run smoothly and ensure that all the needs of everyone on campus are met.

1. **Table listing what labs are in each building.**
    a. This result will list all the labs and their room number for a specified building. This way anyone with access to the database will be able to see what labs are in a building and where they are located.
2. **Show how many computers and other equipment are in each lab.**
    a. This is a professor friendly report. It would simply list how many computers are in each lab. This way a teacher can easily see if their class will be able to fit in a computer lab, and if the lab has the equipment needed for the class, ie projector printer etc.
3. **List the make and model of each computer in a specific lab.**
    a. This report is an ITS friendly report. It allows the user to quickly bring up a specific lab and see what different kinds of computers are in a lab. This way ITS

can ensure that each lab has similar if not the exact same kind of computer in relation to each individual lab.

4. **List what classes are held in a specific lab.**
    a. Having a report that displays what classes are held in each lab will be useful to ITS. For example if it an engineering class they can ensure that the computers have the appropriate programs installed and ready to go for when the class needs to use them.
5. **Table of Managers/students in charge of a lab**
    a. This report will provide a list of which members of ITS are responsible for maintaining which labs. Therefore if there is a problem with a certain lab it would be easy to find who to report it to.
6. **Table displaying which departments are using a lab**
    a. This will show which departments utilize the computer lab. Thereby allowing the college to determine as to how many computer labs should be maintained on campus, and if there will be more classes offered in the future from the list of classes that use the computer lab they could decide to add more computer labs, or vice versa if there will be less classes offered from the list of classes that use the computer labs.
7. **Average number of students in a class for a lab**
    a. Would help determine the number of computers that should be in each computer lab, and could help determine the number of computers that should be in any computer labs that the college plans on adding in the future.
8. **Schedule of when a lab is occupied by a class**
    a. Will show how often a computer lab is used, and also when it is planned to be used, so that students outside of class who wish to use the college computers would know when they lab is available for them to use outside of class.
9. **List of when each lab was last updated**
    a. Will show when each computer lab was last updated so that any planned future updates can be cycled between the labs so that labs that were recently updated does not get updated before a lab that has not been updated for an extended period of time.
10. **List of employees that work for ITS**
    a. This will give a list of all employees that work for ITS. The table will display first name, last name, employee ID, and job title for each employee in ITS, allowing for easy record keeping by ITS managers.
11. **Display layout type of each lab**
    a. This report will give a detailed layout of how a lab is set up; whether it be in rows of computers, as in E281, or around the edge of the room, as in N203. This would

be helpful for professors when deciding which computer lab to use, if they want a discussion based class or a classroom setting type of layout.

12. List of equipment in need of repair

a. This gives the ITS department to have a list of all equipment across that campus that is need of servicing. This includes all equipment that is student owned, that is in a lab, or that is in a regular classroom. It allows ITS to service any higher priority equipment over lower priority as well as bring the required equipment to service the broken technology.

13. Table of equipment status in a specific lab

a. This gives ITS a list of equipment in need of repair, listed by each lab. Whereas the above was listed as a general list across the entirety of campus, this is a list of tech specifically in computer labs. This will include a general list of computers, projectors, printers, etc. across all computer labs on campus.

14. Table of software installed on each computer

a. This would give ITS a detailed list to keep track of any updated software and software versions on each individual computer. This would allow ITS to install or update software as needed for an individual computer.