HCI WS 17/18			TEAM T08:
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TASK 1. DATA GATHERING TECHNIQUES (1 + 1 = 2 points):

Part 1:

- Indirect observation via Log-Data Analysis can be done on a log of email conversations shared between the employees of different hierarchies to understand the context of the conversation between different employees.

- Semi-Structured Interviews targeting focus groups are based on hierarchy in the company so as to get the opinion of the employees at different levels to better understand their requirements for the communication platform and discuss any of the problems they face.

- Silent Observation and Studying Documentation can be done by observing the meeting sessions and reading the employee-meeting review reports to understand the variety of the stakeholders and the hierarchy levels in the company as well as the different issues which are discussed in the company.

Part 2:

- Data Recording: Notes, Videos, and Photographs of the warehouse work area so as to understand the scope of the system, followed by Retrospective Testing Interviews based on the warehouse workers' videos to confirm if the recorded data is enough to find the right path.

- Semi-structured interviews targeting warehouse workers so as to understand the important places to visit and any obstacles or confusion they face to find the shortest way to their destinations.

- Critical Incident Interviews can be conducted so as to get an idea of past experiences where workers took longer ways of doing something unknowingly.

TASK 2: ESTABLISHING REQUIREMENTS (1.5 + 1.5 + 1 + 2 = 6 points)

Part 1:

The ability of understanding what a product should do or establishing requirements is important because:

- During data gathering, the producer records and analyses the users' voices and needs, so as to understand the requirements of the user(assuming they know very well what they want) which when taken into account makes it more likely that the end result will meet users' needs and expectations leading to less chances of monetary loss or frustrations.

- It might not always be the case that the user has very well articulated set of requirements already or even if they have any initial set of requirements, those might have not been explored in sufficient details for development to begin, thus, it becomes important to establish specific and unambiguous requirements clearly at the first place.

- The clear-stable set of user needs and goals identified, form a sound basis to move forward into thinking about the next stage: 'Design of the product' with higher value of customer confidence on the product.

Part 2:

Identifying needs and establishing requirements is itself a highly iterative activity. This is because there is no fixed timeline for how long the established requirements last like a set number of weeks or months and then finish. During the lifecycle of the development of a product, the producer, and the client will have many such meetings where the user requirements evolve and develop as the stakeholders interact with designs and judge the possibility of each one of their requirements and how certain facilities can help them more. The different sub-activities involved in the process, inform and refine one another continuously.

Part 3:
Functional Requirements deal with those set of requirements which talk about what the system must do and its functionalities while Non-Functional Requirements talk about the constraints which the system and its development has. For example: A functional requirement for iPod is that the user should be able to play and pause the music anytime. However, a non-functional requirement for iPod is that it should support different music file formats like mp3, wav etc.

Part 4:
(a) The program should install very fast.
Answer: No, it is not a valid requirement because 'Fast' is a very subjective and relative term. Fast could be few 'minutes' for someone or it could be few 'seconds' for another user. Thus, 'fast' is ambiguous measure of time.

(b) Green should be the only color used in the UI.
Answer: Yes, this is a valid requirement.

(c) The program must not use any sound.
Answer: Yes, this is a valid requirement.

(d) The system has to be appropriate for children.
Answer: No, this is not a valid requirement because the measure of the system being 'Appropriate' is very subjective. For some, a colorful interface might be appropriate for children while for others, an easy learning interface might be more appropriate for children. So, this definition is highly ambiguous and one cannot tell when the goal of being appropriate is clearly met as there is no standard measure for it.

TASK 3: VISUAL SEARCH (1.5 points)

This is correct, because when searching to confirm that a stimulus is present, regardless of how salient it is, one must only search the options until the stimulus is found and can then ignore subsequent stimuli. When searching to confirm a stimulus' absence however, one must search all stimuli to confirm that it is not the target stimulus.

TASK 4 - RECOGNITION vs RECALL (3.5 points)

Recall: How to play notes on a trumpet. Various key combinations to memorize, no obvious pattern to which keys correspond to which musical notes.
Recognition: Using a computer keyboard. Letters printed on keys, and sometimes various ways of displaying information (ex. Braille markers)

1. One shouldn't force the user to use overly complicated procedures to carry out tasks.
2. Design interfaces that allow the user to recognize relevant information from visual elements rather than have to remember it.
3. Provide users with various ways to remember and encode information.
4. One should not have the user remember large amounts of information at a time and should remind the user of relevant information.

TASK 5 -PERCEPTUAL ILLUSIONS (2 + 2 + 3 = 7 points)

Part 1:
To evoke the "cutaneous rabbit" illusion, experimenter needs to tap two or more separate regions on a participant's body. The participant should not see where he or she is tapped. Under some conditions (like the amount of taps on each region or regularity of the taps) the places of the taps will be misplaced by the participant. He or she will feel that the taps are not only localized in the tapped regions (physical stimulus) but are more distributed between them (perception). The illusion is most successfully evoked on regions with less spatial acuity.

Part 2:

The illusion should be successfully invoked on the humans back (lower part - middle part - upper part) and arm (wrist - elbow - shoulder). The illusion should work on these regions because they have low spatial acuity, and the illusion is more successfully invoked on regions with less spatial acuity.

Part 3:

Person 1 - Arm was better, did not work on back.
Person 2 - Neither worked.
Person 3 - Worked on arm, didn't work on back.

Based on our results, arm is a region better suited for evoking the illusion then back.
