INF3720
Assignment 1

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Question 1

1.1)
Interaction design is the process of designing interactive products that facilitate and support the way users (people) communicate and interact in their daily lives.

1.2)

Feedback: Feedback is the process of sending back information about an action or event that relays what has been accomplished allowing the user to continue their task

Constraints: Constraints refers to methods and techniques that restrict the ways that the user can interact with the system to limit unwanted interactions.

Consistency: Consistency refers to creating interfaces that provide similar feedback for similar events and use similar elements to trigger similar actions.

Affordance: Affordance is a physical attribute of an object or device that allows users to figure out how it works intuitively.

1.3)

Effectiveness: How good a product is at what it is made to do.
Comment: The calendar operation on MyUnisa allows for easy tracking of due dates.

Efficiency: How much the product helps the user to accomplish a task.
Comment: Subject categorization on MyUnisa allows for fast and easy navigation.

Safety: Involves protecting the user from unwanted situations.
Comment: Does not display a warning on MyUnisa when clicking on alternative links.

Learnability: How easy it is to learn how to use a system.
Comment: Poor interface design on MyUnisa causes confusion.

Memorability: How easy a product is to use once the user has learned to operate it.
Comment: Consistent layout and elements on MyUnisa allow for good memorability.

Question 2

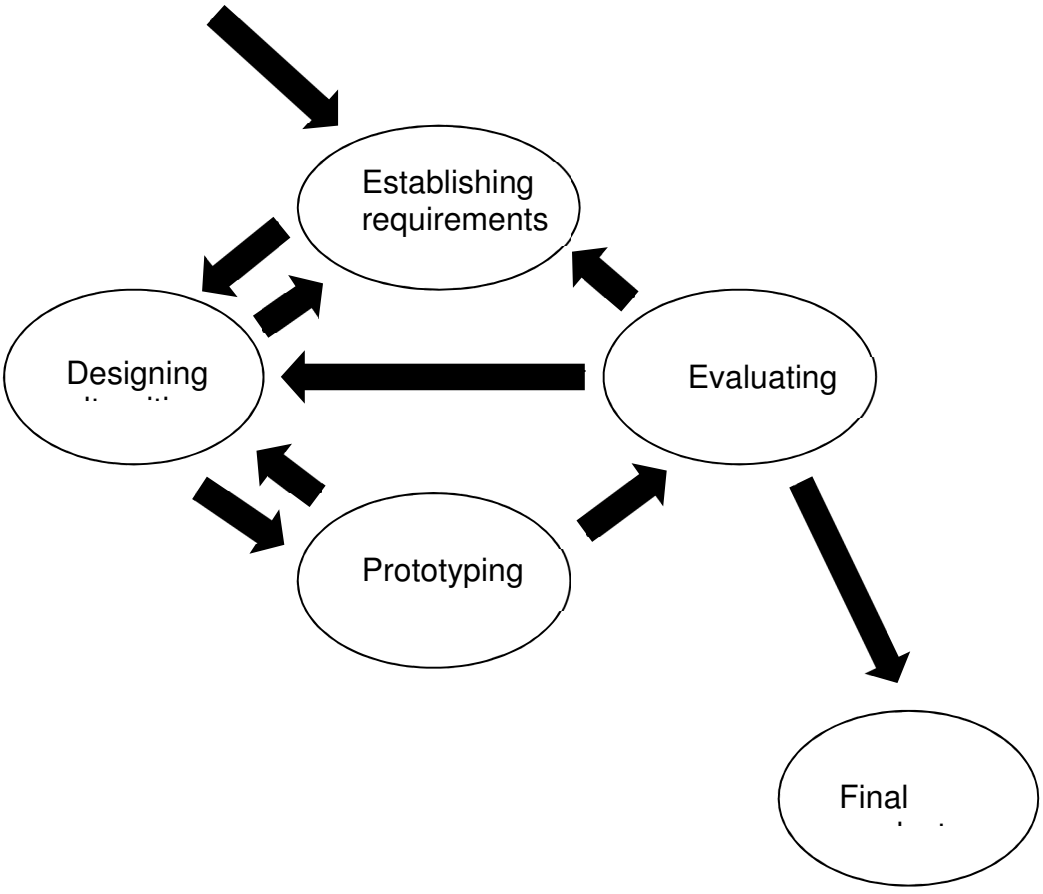
2.1)
Establishing requirements: The process of identifying the target users and finding out what type of support an interactive product could usefully provide.

Designing alternatives: The process of brainstorming different ideas that fulfill the requirements.

Prototyping: Creating interactive products for evaluation purposes.

Evaluating: The process of identifying the usability and acceptability of the product or design.

2.2)



2.3)

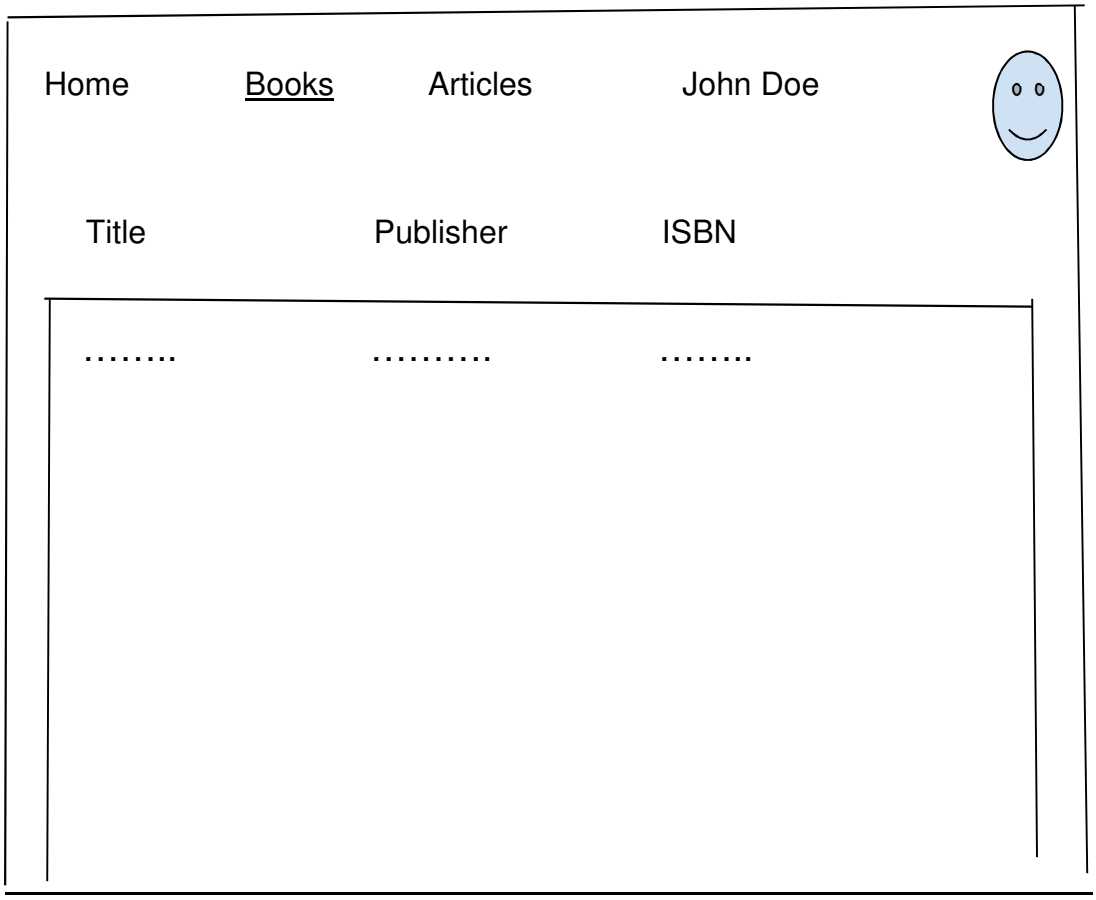
Establishing requirements:

Target user: People who want to access library resources.
Support: Intuitively display what resources are available.

Designing alternatives:

Ideas: Grey-out unavailable resources and remove unavailable resources from resource list.

Prototyping:



Evaluating:

Invisible resources make it impossible for the user to know when a resource will be available.
Prototype: Grey-out

Question 3

3.1)
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To adhere to a **paradigm** means following a set of practices and rules that a community has agreed upon when approaching a task.
Example: The way in which results from research are to be interpreted and analyzed.

3.1.2)
Vision of the future regarding interaction design is a driving force that frames research and development.
Example: The vision of the internet of things.

3.1.3)
A well supported explanation of some aspect of a phenomenon.
Example: Cognitive **theory** about human memory.

3.1.4).
A **model** is a simplification of some aspect of human-computer interaction that allows designer to evaluate alternative design.
Example: Newells key-stroke model.

3.1.5)
A **framework** helps designers identify the problems. Frameworks are a set of related concepts that support the designer in some problem area.
Example: Frameworks that help designers conceptualize things.

3.2)

I have used the following real-life load shedding app/website: **Eskom Se Push**		
Purpose of conceptual modules: Conceptual models help designers envision the interaction between the user and the product. These models determine the relationship between the user and the product (instructing, conversing etc.).		
Core Components	**Discussion of component**	**Application of component**
1. Local storage	Functionality to save data on devices.	Storing last received schedule so that users can access the load shedding schedule.
2. Audio input	Functionality to receive and store audio input from device sensors.	Adding voice log functionality to chat apps.
3. Ticket log	Functionality to send user reports and errors.	Users can log tickets when power is off unexpectedly or if there are problems with the app.
4. Pre-paid electricity transaction	App integrates with third party API to facilitate online transactions.	Users can buy electricity via applications.

Question 4

	Type of support	**Application - Distance learning**
Remote conversation 1	Telepresence rooms for groups	Allows groups/individuals to have meetings with others that cannot be at the physical location. e.g. Tutors, Lectures etc.
Remote conversation 2	Live Streaming	Allows Lecturers to share the classroom experience to students who cannot physically attend. Alternatively, it can be used as revision.
Remote conversation 3	Document Sharing	Students and Lecturers can share documents. Students can submit assignments or share notes etc.
Co-presence 1	Smartboard	Users can interactively work together on a single surface that integrates into other technologies.
Co-presence 2	Public (Shared) Displays	Displays that allows users to connect with it. The users can then easily share information (visuals, videos etc.) to communicate more effectively

Question 5

Design element	Pleasurable interfaces	Annoying interfaces
a) **Visceral design**	Pleasant color pallets	Intense heavy contrasting interfaces
b) **Behavioral /reflective level**	Cultural Images that resonate with the user.	Unnecessary haptic feedback
c) **Feedback-level**	Polite error messages	Red, unclear error prompts
d) **Persuasive level**	Personalized messages	Pop-up ads
e) **Mood elements**	Fun avatars that represent system status	Aggressive color schemes.