Interaction Design Supervision 1

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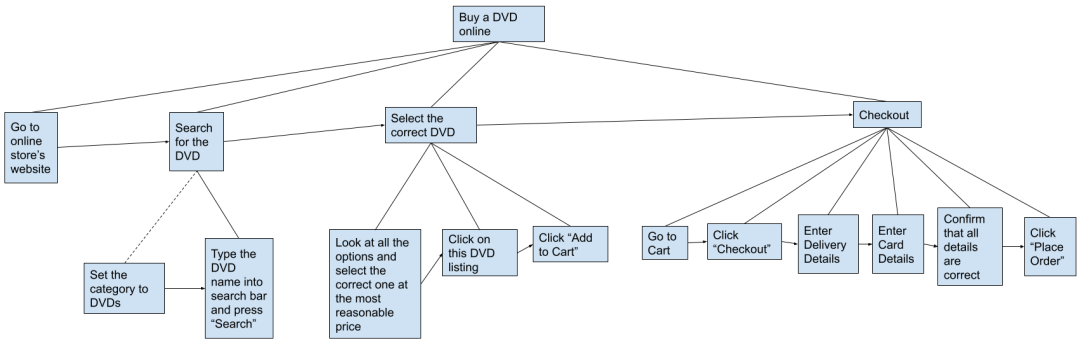
1.
    a.
        i. Functional - The app needs to allow the user to book a taxi from a certain location
        ii. Data - The user's location, trip, and payment information should be securely stored to prevent others from being able to find them
        iii. Environmental - This app will likely be used on the move when users are looking to get somewhere quickly
        iv. User characteristics - This will be used by the general public, and no specific knowledge can be presumed, except for the fact that they own a smartphone and likely know how to use it
        v. Usability goals - As the users want to get somewhere quickly, the layout and workflow should be efficient and not take too many taps or too much effort
        vi. User experience goals - As above, should be easy to use quickly so should be uncluttered and therefore minimalist
    b.
        i. Functional - Needs to allow officials to schedule takeoffs and landings, and to modify schedules
        ii. Data - Data needs to be stored securely but needs to be easily accessible by many people, such as ATC officials, pilots, maintenance staff, etc.
        iii. Environmental - Will be used at an airport, so a likely crowded place with generally older computer systems used by many people
        iv. User characteristics - Not necessarily well-versed in how to use technology as they may not have the required training, so should be easy and intuitive to use
        v. Usability goals - Safety is the biggest priority as in general in the aviation industry, and after this is ease of use as users may not be entirely comfortable with technology, as mentioned above
        vi. User experience goals - Should be simple to do tasks required, so once again, uncluttered
2.
    a. Conceptual design refers to what a system will do and how it'll behave, while physical design refers to the actual details such as iconography, typography, etc. i.e. what the user actually sees/how they interact.
    b.
        i. A home page with recommended products/products on sale, which is similar to a front shelf of a physical store containing some products currently on sale
        ii. A search bar, corresponding to actually looking for products in a shop
        iii. Search by category, corresponding to looking for products in a certain aisle in a physical store

iv. A shopping cart containing the products added by the user, corresponding to a physical trolley that a customer would put items into
v. The Orders page containing a list of orders, products, and prices, corresponding to physical receipts provided by a store

c.



3.

a.

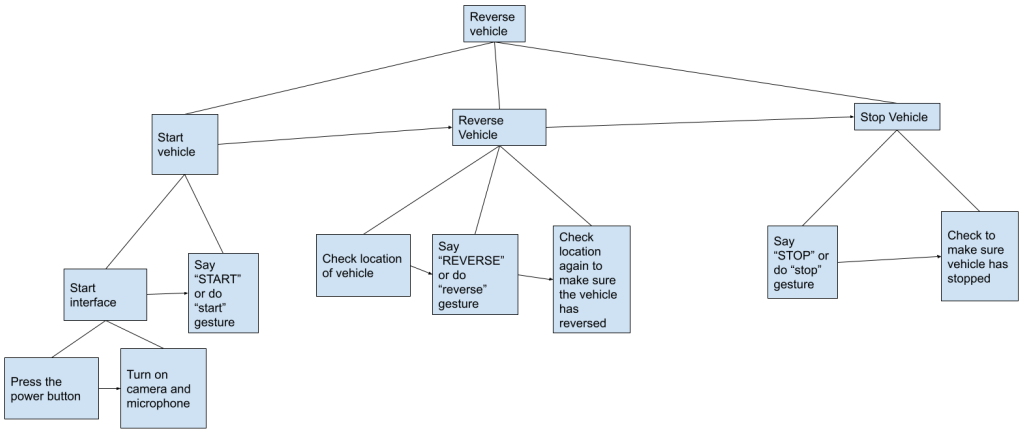
i. Use gesture and voice commands as required but have a physical steering wheel or something similar to fall back on
ii. Have the voice commands be something simple such as "left" to go left, and have the automated system parse them
iii. If an error is thrown or something unexpected occurs, show it to the user and allow them to decide how to respond rather than automatically ignoring it
iv. Allow the user to disable voice or gestural input and only use one and not both

b.

i. Small information devices such as phones, palm pilots, etc. - Computers integrated in devices such as phones
ii. Immersive environments such as VR goggles
iii. Large devices occupying room-sized spaces - Large computers such as cinema screens with stereo sound
iv. Device-less interaction - such as voice input like with an Amazon Echo
v. Multi-user environments such as a large central computer that many terminals are connected to

The ideal one to use for this would be (iv) device-less interaction as the input types are speech and gesture-based.

c.



d. Task analysis can help to identify potential problems where a user may not complete the task, such as in withdrawing cash from an ATM, they may forget to take their card.