Homework – 8
(10 points)

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Canvas.

1. Explain Apple's view of user interface design, especially for apps.
    Apple views user interface design as something that users won't even notice because it does exactly what they expect. They put emphasis on human-computer interaction in a user-centered system that smoothly blends input, output, and the interface. Apple likes to stay on top of ingenuity by constantly progressing the GUI for user-centered interactions.

2. What is HCI?
    HCI is Human-Computer Interaction, which describes the relationship between computers and the people who use them to perform their jobs. HCI applies to everything from smartphones to global networks.

3. Why is a transparent interface desirable?
    Nowadays users want an interface that doesn't get in the way and that they won't notice. Using a transparent interface, users can see right through the interface to the work they are doing and it will not distract them and calls no attention to itself.

4. What are the seven habits of successful interface designers?
    1. **Understand the business**
    2. **Maximize Graphical Effectiveness**
    3. **Think Like a User**
    4. **Use models and prototypes**
    5. **Focus on Usability**
    6. **Invite Feedback**
    7. **Document Everything**

5. How would you rank the 10 guidelines for user interface design in order of importance? Explain your answer.
    1. **Reduce Input Volume**
    2. **Manage Data Effectively**
    3. **Create an Interface that is Easy to Learn and Use**
    4. **Provide Flexibility**
    5. **Provide Users with Help and Feedback**
    6. **Enhance User Productivity**
    7. **Create an Attractive Interface**
    8. **Enhance the Interface**
    9. **Use Validation Rules**
    10. **Focus on Data Entry Screens**

My top 3 choices here all coincide with one another and in my eyes are some of the most important factors of a good user interface in the modern world. Users should not be swarmed with data input fields (hence my #1 and my #10). Data should be managed efficiently for a better system, and it should be easy for users to learn, as a poorly designed system will be deterrent to less-knowledgeable users. Choices 4-9 were rather close and it is hard to pinpoint specific reasons for the placement, although I do believe that User Help and feedback and interface flexibility are extremely important, just not so much as the top 3 are.

6. What are the main principles of source document design?
   Source document design should be easy for users to interpret, avoiding confusing instructions or poor organization. They should follow good form layout that is easy to complete and provides enough space for users to enter data. Data entries should be indicated clearly and the placement of data entries should follow the natural way for humans to read documents: top to bottom and left to right. Order and placement should be logical.

7. What is the difference between a detail report, a summary report, and an exception report?
   Detail reports can be lengthy and provide one or more lines for each individual record. Exception reports will include entries for records that meet specific conditions and are useful when users are looking for records that need attention, not every detail. Summary reports are the most broad of the three, only showing top-level details and totals, not details and individual records.

8. How has input technology changed in recent years?
   New hardware and ways for systems to take in data have changed the input technology world drastically. Inputs can be done completely online now, reducing validation time and the availability of input data. Alongside this, data input can be automated and scheduled for completely hands-free input that only needs checking when something is wrong or an exception is found.

9. What is output security?
   Output security is essential to any organization in protecting proprietary data and sensitive information. It will protect privacy rights and shield the organization's data from theft or unauthorized access. Output security can include limiting printed copies, paper shredding, tracking procedures, and labelled storage with capacity counts. Diskless workstations in enterprise companies also help reduce security concerns.

10. What are three emerging trends in user interface design?
    Modular Design – modules containing code for single processes or actions are implemented into the higher-level program. Each module can be developed and tested individually to provide greater flexibility for re-use.

    Responsive Web Design – Coinciding with the world's trend of viewing web content on multiple devices that have different aspect ratios and resolutions, responsive web design makes sure the content a user views fits the screen correctly and is responsive to the device no matter the screen.

    Prototyping – the act of producing something in an early, rapidly constructed form that can then be put to the test through intense analysis, design, modeling, and testing. Prototyping allows for early access to user input and feedback that allows users and developers to examine the model and correct it in a risk-free environment before intended release