**Chapter 6 Questions and Answers**

1. When are menu selection and form fill-in more appropriate than direct manipulation?
* Systems that require little or no training, e.g. picking the amount to withdraw from an Automated Teller Machine, e.g. $20, $40, $60, etc.
* Task-drive applications, e.g. an automated food ordering menu where you go from drink, to appetizer, to main course, to dessert, etc. from a fixed list of choices
* Simple confirmation statements, e.g. delete file Yes/No?
1. Sketch an interface to demonstrate each of the following menu types: Binary Menu, Multiple-Item Menu, Check boxes, Pull-down Menus.
* Binary menu: Simple yes/no, true/false, or male/female choices
* Multiple Item menu: More than two choices, users click radio buttons or check boxes
* Pull-down menu: menus that the user can always access by making selections on a top menu bar. Clicking on a menu title brings up a list of related items, and users can then make a selection by moving the pointing device over the items.
* Important that skteches show unavailable choices as greyed out where appropriate
1. Summarize the rules for organizing menu contents into meaningful groups and sequences.
* Create groups of logically similar items
* Form groups that cover all possibilities
* Make sure that items are nonoverlapping
* Use familiar terminology, but ensure that items are distinct from one another
* Order items in a logical presentation sequence: Time, numeric, alphabetic, etc.
1. Describe a menu that accommodates expert or frequent users who need quick ways to perform simple tasks.

Create shortcuts (Hotkeys or key combinations). Allow users to “mouse ahead”. Browser bookmarks, tear-off menus.

1. Describe techniques that help alleviate user disorientation when navigating through a menu structure. Highlighting to show menu position (Main Menu -> Mid-size Cars -> **Honda** -> Accord). Spatial maps.
2. Describe a menu design that helps reduce errors and speeds data entry for users who must type information into an interface.
* Meaningful title
* Comprehensible instructions
* Logical grouping and sequencing of fields
* Visually appealing layout of the form
* Familiar field labels
* Consistent terminology and abbreviations
* Visible space and boundaries for data-entry fields
* Convenient cursor movement
* Error correction for individual characters and entire fields
* Error prevention where possible
* Error messages for unacceptable values
* Marking of required fields
* Explanatory messages for fields
* Completion signal to support user control
1. What must be considered when designing menus for a small screen device like a phone?
* Account for target domain
* Entertainment applications versus information access and communication versus assistant devices.
* Dedicated devices mean dedicated user interfaces
* Allocate functions appropriately
* Consider usage frequency and importance.
* Simplify. Focus on important functions, relegate others to other platforms
* Design for responsiveness
* Plan for interruptions and provide continuous feedback.

**Terms and Concepts to Know:**

1. Binary Menu
2. Menu options and features: radio button, check box, pull-down menu, toolbar, iconic menu, palette, ribbon, pie menu, marking menu, scrolling menu, combo boxes, fisheye menu, sliders, two-dimensional menus, embedded links, adaptive menu, tear-off menu
3. Depth versus breadth in menu design
4. Tree Structure