

1. Guidelines for Menu Design

1. Strive to be **consistent**
2. Use familiar and concise terminology to describe items • Provide visibility
3. Avoid long and complex menus, and reduce short term memory
4. Meaningful grouping of items
5. Structure the menu and organise your items relevant to user tasks
6. Logical sequence of items
7. Using effective negative spaces
8. Provide an easy option to go back, and return to the main menu
9. Consider knowledge in the head and the world

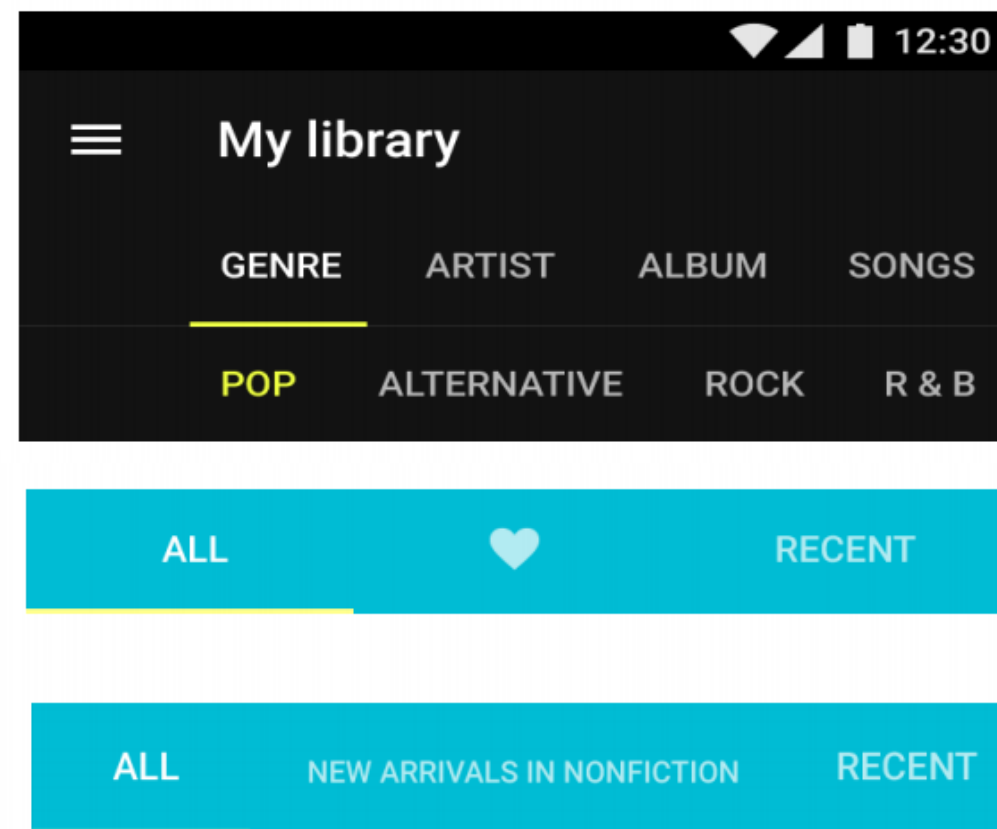
1. Guidelines for Menu Design Cont.

- 10. Display menus such that they are effortless and natural to find and use
- 11. Provide a number of different navigation options for items
- 12. Limit the use of cascading menus for frequently used functions
- 13. Reduce errors through disabling/greying out inapplicable menu items
- 14. With mega menus, broad-shallow menus are preferred to narrow-deep ones



2. Guidelines for Tab Menu Design

1. Be consistent in using (icons, text labels or both)
2. Do not use long labels
3. Avoid nested tabs



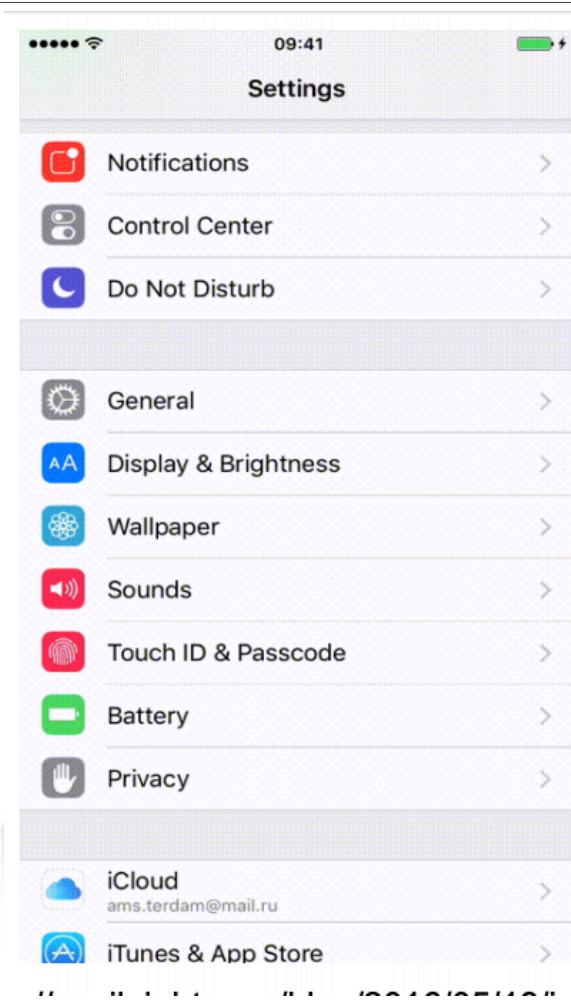
3. Design Guidelines for Side Drawers

1. Use side drawers for **primary navigation**
2. Do not overload side drawers with many options
3. Do not make them scrollable
4. Use meaningful grouping
5. Be aware of the usability issue



4. Navigation in iOS

1. Hierarchical navigation
 - Selecting one option per screen to get to the destination (e.g., Settings) – For a different option you must start over
2. Flat navigation
 - Switch between multiple options, e.g., using a tab bar
3. Content-Driven or Experience-Driven Navigation
 - Navigating through content, e.g., in games, eBooks



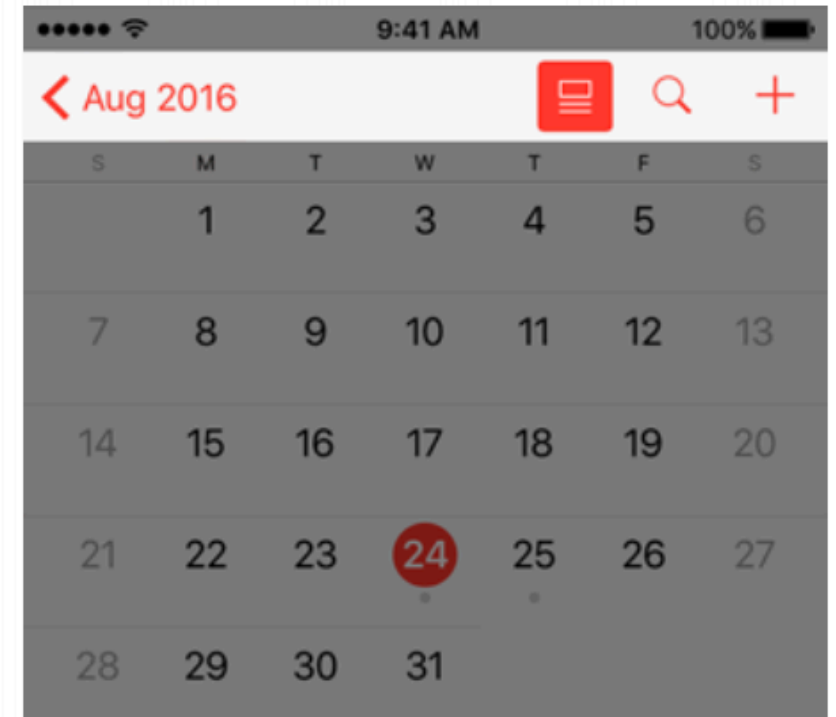
5. iOS Navigation Guidelines

1. Always provide a clear path
 - Let the user know:
 - Where they are
 - What tasks are available
 - How to get to the next destination
2. Use a page control when you have multiple pages of the same type of content



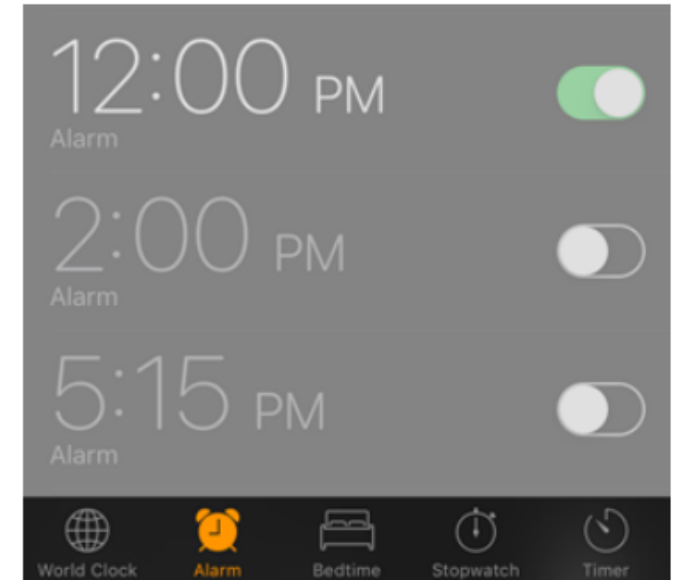
5. iOS Navigation Guidelines Cont.

3. Use a navigation bar to traverse a hierarchy of data
 - The navigation bar's title shows the current position in the hierarchy, and the back button to return to the previous location



5. iOS Navigation Guidelines Cont.

- 4. Use standard navigation components (e.g., page controls, tab bars, table views)
- 5. Use a tab bar to present peer categories of content or functionality



5. iOS Navigation Guidelines Cont.

6. Design an information structure that makes it fast and easy to get to content
 - Use a minimum number of taps, swipes, and screens
7. Use touch gestures to create fluidity
 - Make it easy to move through the interface



6. Form Design Guidelines

- Create a smooth and natural conversational flow, with logical and sensible order of options
- If the form requires gathered or third-party answers, try to store this information
- When the form is split across pages by topic, use a progress indicator
- Error prevention (e.g., through constraints, user selected data, hints and examples)



6. Form Design Guidelines (Cont.)

- Providing useful error messages
- Finish the form smoothly with a 'thank you' or an acknowledgement
- Meaningful, familiar and standard field labels
- Consistent terminology and abbreviations
- Optional and required fields clearly marked
- Comprehensible instructions



6. Form Design Guidelines (Cont.)

- Use visible space and boundaries for data entry fields
- Differentiate grouped items
- Visually appealing layout (alignment)
- Use lists if possible, to minimise errors
- Immediate feedback
- Completion feedback



7. Forms and Materials Design (Cont.)

Three principles

- **Discoverable**
 - Text fields should be discoverable to indicate that users can input information
 - Using filled and outlined text fields to provide a perceived affordance, making the fields discoverable
- **Clear**
 - Text field states should be clearly differentiated from one another
- **Efficient**
 - Text fields should make it easy to understand the requested information and to address any errors



8. Mobile Form Guidelines

- Replace horizontal labelling by vertical labelling
- Keep the input fields to a minimum and combine similar input fields
- Eliminate redundant and less important entries – Is email confirmation necessary?
- Use clear error messages
- Error correction: refocus on the field containing the error
- Consider all possible inputs by the user in the design
- Provide the user with the feedback on the current status and progress
- Inline feedback wherever appropriate



8. Mobile Form Guidelines

- Replace horizontal labelling by vertical labelling
- Keep the input fields to a minimum and combine similar input fields
- Eliminate redundant and less important entries – Is email confirmation necessary?
- Use clear error messages
- Error correction: refocus on the field containing the error
- Consider all possible inputs by the user in the design
- Provide the user with the feedback on the current status and progress
- Inline feedback wherever appropriate



9. Colour Design Guidelines

- Select colors carefully
- Minimize number of colors
- Reduce eye strain instead of increasing it
- Follow conventions: e.g. link colors
- Be aware of accessibility rules
 - Be aware of color blindness
 - Provide sufficient contrast between foreground and background
 - Don't use color alone to convey information



10. Typography Design Guidelines

- Use more legible fonts
- Use fewer typefaces (generally 1-2, or 3 max)
- Italics, underline and bold can be used to emphasise points but should be used sparingly – Underlines can be mistaken by hyperlinks
- Minimise using different sizes (1-3 max)
- Support redundancy
- There should be sufficient spacing between text lines to make it easy to read, and to increase reading speed
- The size of the font should be large enough
- The text alignment is also important and better to use left or justified alignment because the centre or right alignments make the text hard to read



11. Visual Design Principles

- Balance – Balancing the distribution of objects (with respect to their weight, color, texture and space) on the screen/page
- Contrast: emphasising certain objects by using differences in colour, shape, size, or position
- Dominance: One of the objects/elements dominating the others (usually based on the contrast)
- Hierarchy – It is used to show the difference in importance between objects – It can be created by using different sizes or colours, or based on their position on the screen – It affects the order in which our eyes perceive what we see

11. Visual Design Principles Cont.

- Alignment – Ordering and organising objects and contents on the screen – Alignment of related elements and creating a visual connection between them
- Repetition – Repeating the same colours, fonts, shapes, or images – Providing consistency
- Unity – Visual elements of a composition appear to belong together

12. Grouping

- Group related elements, and disassociate unrelated elements
- Provide sufficient negative/white space between groups
- Use similar visual properties for presenting elements in a group
- Grouping can not only increase aesthetic appeal but also improve the search for information
- Grouping can involve a hierarchy



13. Grouping and Gestalt Laws

Gestalt laws include:

- Law of proximity: We perceive objects close to each other as a group.
- Law of similarity
 - We perceive elements that share visual characteristics as a group
 - Similar fonts can also be used to show similarity of elements
- Law of closure: We perceptually tend to complete objects that are not complete
- Law of continuity (or good continuation): the eye follows the smoothest path when viewing lines. Regardless of how they have been formed.
- Law of figure-ground: We can differentiate an object (figure) from its background (ground)



13. Grouping and Gestalt Laws Cont.

- Group related elements, and disassociate unrelated elements
- Provide sufficient negative/white space between groups
- Use similar visual properties for presenting elements in a group
- Grouping can not only increase aesthetic appeal but also improve the search for information
- Grouping can involve a hierarchy



14. Mobile Accessibility and Guidelines

1. Perceivable

1.1 Small Screen Size

- Minimise the amount of information for a small screen
- Provide a reasonable default size
- Position form fields below their labels

1.2 Zoom/Magnification

- Text must be resizable without assistive technology up to 200%
- The browser pinch zoom should not be blocked by options

1.3 Contrast: Mobile devices are used in different environments with different lightings

- Consider the right contrast ratios for large and small texts



14. Mobile Accessibility and Guidelines Cont.

2. Operable

2.1 Keyboard Control for Touchscreen Devices

- Keyboard accessibility- to support external physical keyboards or alternative on-screen keyboards

2.2 Touch Target Size and Spacing

- Interactive elements must be big enough, with distance from each other

2.3 Touchscreen Gestures

- Gestures should be as easy as possible

2.4 Device Manipulation Gestures

- Should provide alternative control options (using touch or keyboard)

2.5 Placing buttons where they are easy to access

14. Mobile Accessibility and Guidelines Cont.

3. Understandable

3.1 Changing Screen Orientation (Portrait/Landscape)

- Support both orientation modes, do not expect users to rotate

3.2 Consistent Layout

- Be consistent in navigation and placement of repeated components

3.3 Positioning important page elements before the page scroll

3.4 Grouping operable elements that perform the same action

3.5 Provide clear indication that elements are actionable

3.6 Provide instructions for custom touchscreen and device manipulation gestures

- Tooltips, help, labels ...



14. Mobile Accessibility and Guidelines Cont.

4. Robust

4.1 Set the virtual keyboard to the type of data entry required

- To customise the standard keyboard based on the type of data entry

4.2 Provide easy methods for data entry

- Reduce the amount of text entry by providing lists, radio buttons, or autoentry (e.g. date or location)

4.3 Support the characteristic properties of the platform

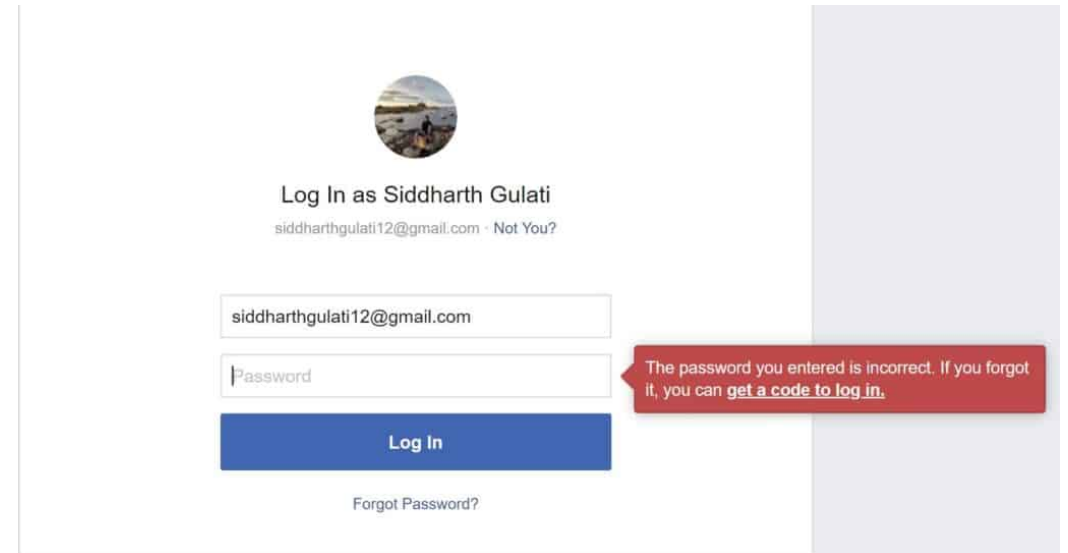
- Mobile devices provide features to help users with disabilities such as zoom or larger fonts. These features vary depending on the device



15 Error prevention

Design such that errors are prevented:

1. Use constraints
2. Use helpful suggestions (auto-suggest or auto-complete features)
3. User selected data
4. Provide examples of data entry format
5. Use of useful defaults, particularly for doing repetitive actions
6. Use validation of data entry



16. Imagery

- Use bold, graphic, and intentional imagery to engage the user
- Imagery selection principles:
 - Relevant, context-related, and personal
 - Informative
 - Delightful
- Use appropriate resolution size of images
- Introduce alternative scales
- Make typography legible on top of imagery



17. Icons

- Material icons use geometric shapes to visually represent core ideas, capabilities, or topics
- **Product icons** are the visual expression of a brand's products, services, and tools – Inspired by the physical quality of material
- **System icons** are simple, modern and friendly, and represent common actions (like trash, print, and save), or a command, file, device, directory
- **Animated icons** represent the action an icon performs in a way that adds polish and delight