



# CIS 424

## Lecture 3: Designing Mobile UI

**Mobile  
Application and  
Development**

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# Designing Mobile User Interface

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# Designing Mobile User Interface

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## UI/UX Design Glossary.

### Navigation Elements:

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The new set of UI/UX Design Glossary, explaining terms in the field of UI design.

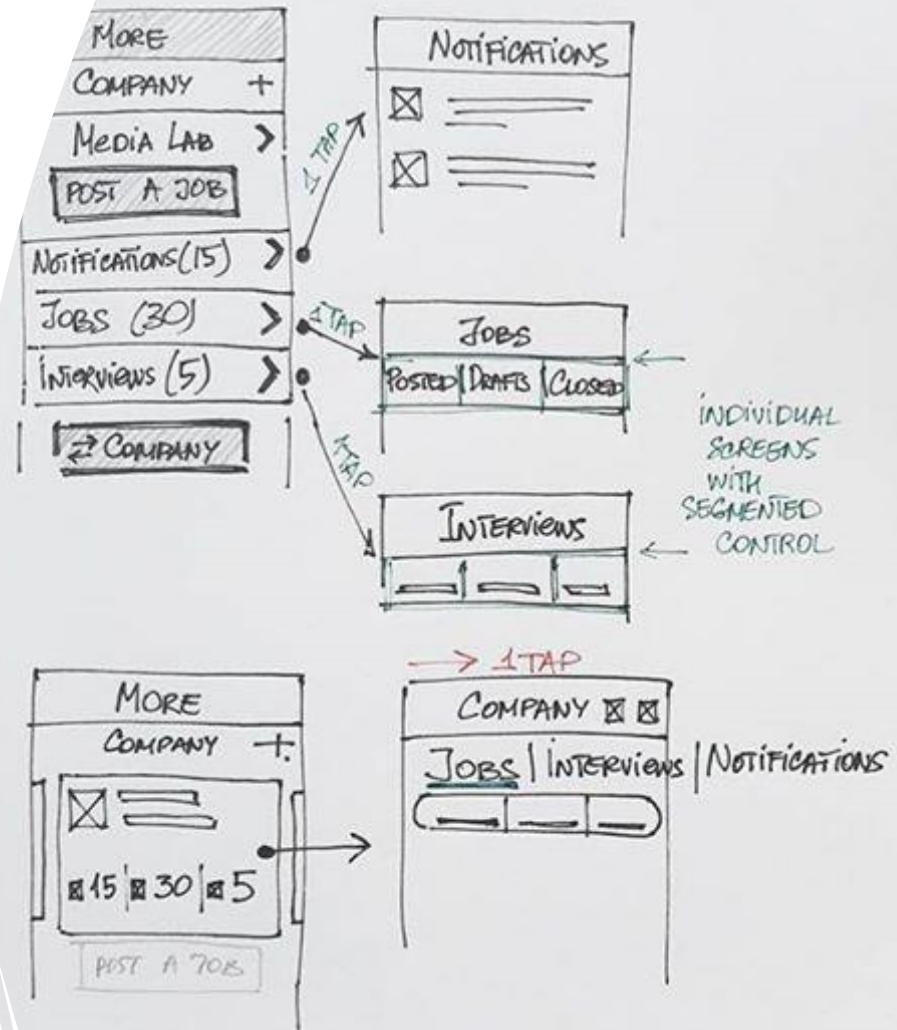
This time it's focused on **navigation elements**: buttons, menus, switches etc.

# Navigation

- Human activity responsible for enabling a vehicle to get **from one place to the other**, controlling and supporting this process.
- Generally defined as the **set of actions** and techniques guiding users throughout the app or website, enabling them to fulfill their goals and successfully interact with the product.
- Users are navigated via an interface with a number of interactive elements such as **buttons, switches, links, tabs, bars, menus**, fields and the like, some of which will be described more in detail below.

# Wireframing example

- The early phase of UX **wireframing** and then checked with a simple prototype to make sure all the important operations and options are clear for users.

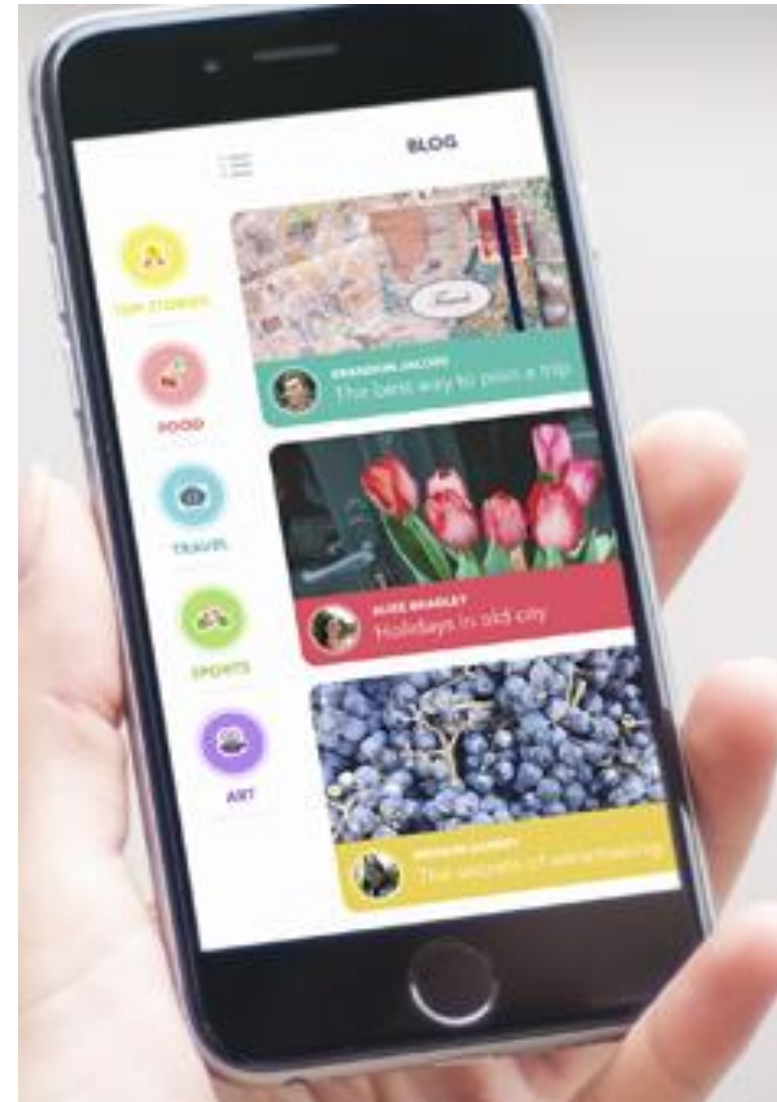


# Menu

- Menu is one of the **core navigation** elements.
- A graphical control that presents the **options of interactions** with the interface.
- Basically, it can be the **list of commands** – in this case, options will be presented with **verbs** marking possible actions like, for example, “save”, “delete”, “buy”, “send” etc.
- Menu **can also** present the **categories** along which the content is organized in the given interface, and this can be the high time for **using nouns** marking them.
- Menus can have **different locations** in the interface (side menus, header menus, footer menus, etc.) and **different ways of appearance** and interaction (drop-down menus, drop-up menus, sliding menus, etc.)
- Typical types of such interactive elements in the layout are **buttons, tabs, or links**.

# Menu

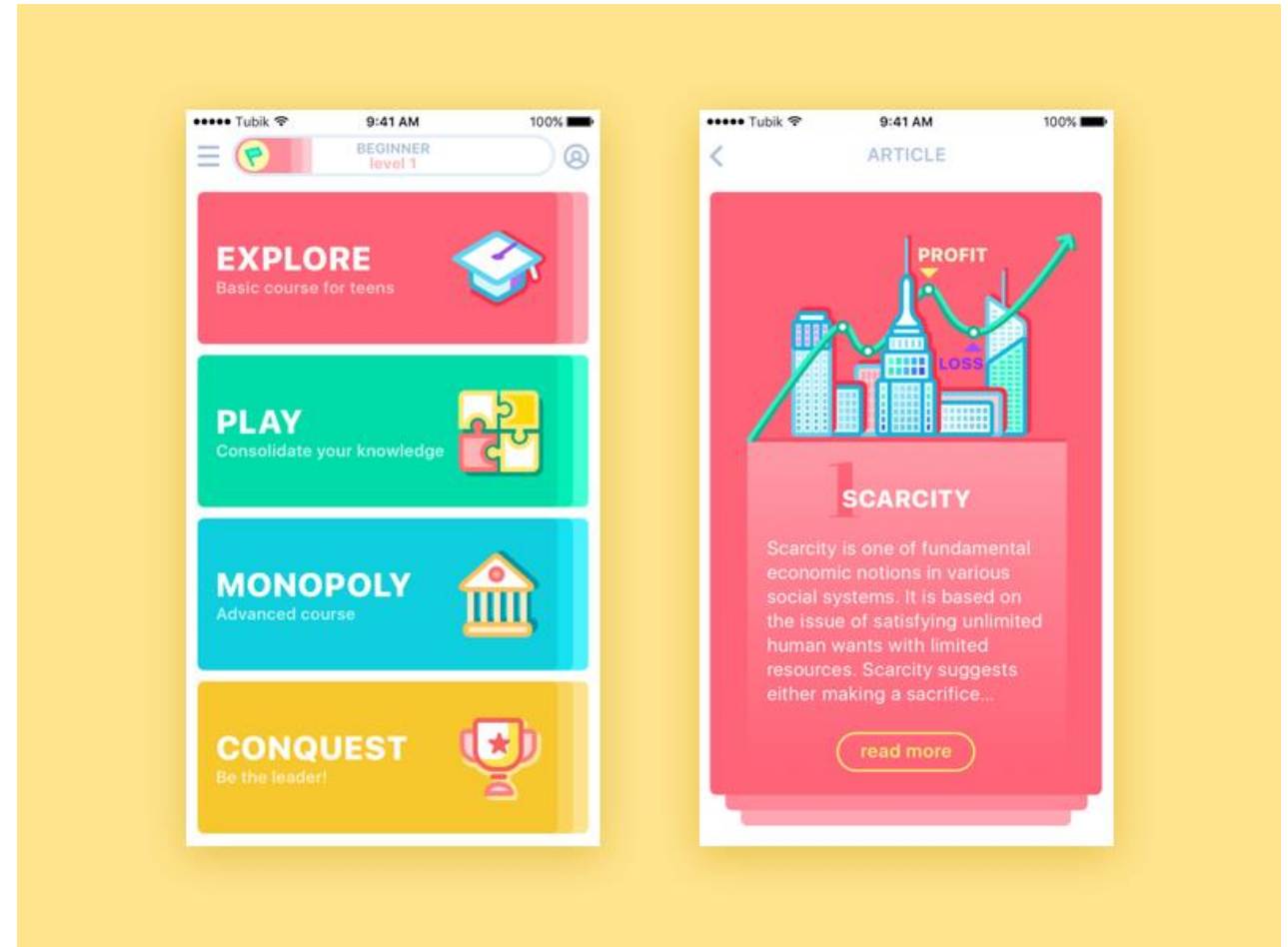
- Here is the example of mobile blogging app interface which features a **left-side** menu presenting the **categories** of content. The copy describing positions in the menu is supported with icons presenting recognizable visual mark for the category.





# Menu

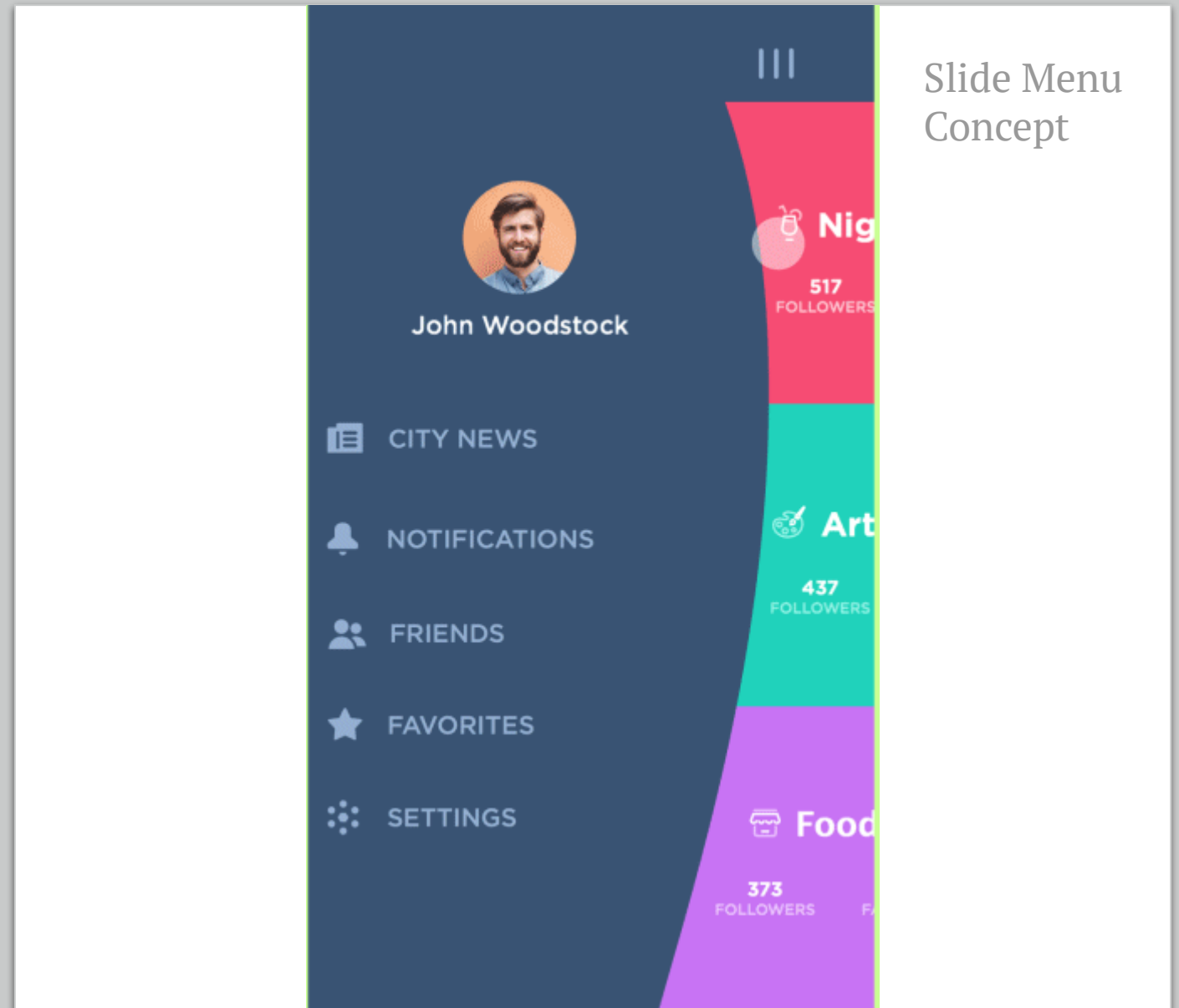
- The presented app UI concept shows the type menu applying the effective technique of **color marking**: when users move to a particular category, the specific **background color** is used for all the content in it, which forms strong associations and quick perception of the nature and theme of data the user sees.





# Menu

- There are two variants of presenting the menu in mobile applications: it can be a part of a **home screen** or a **separate screen**.
- It is recommended to keep the number of options on the menu **under seven** showing only important sections.
- If the app requires more, it can be a good idea to **create subcategories**.



# Bar

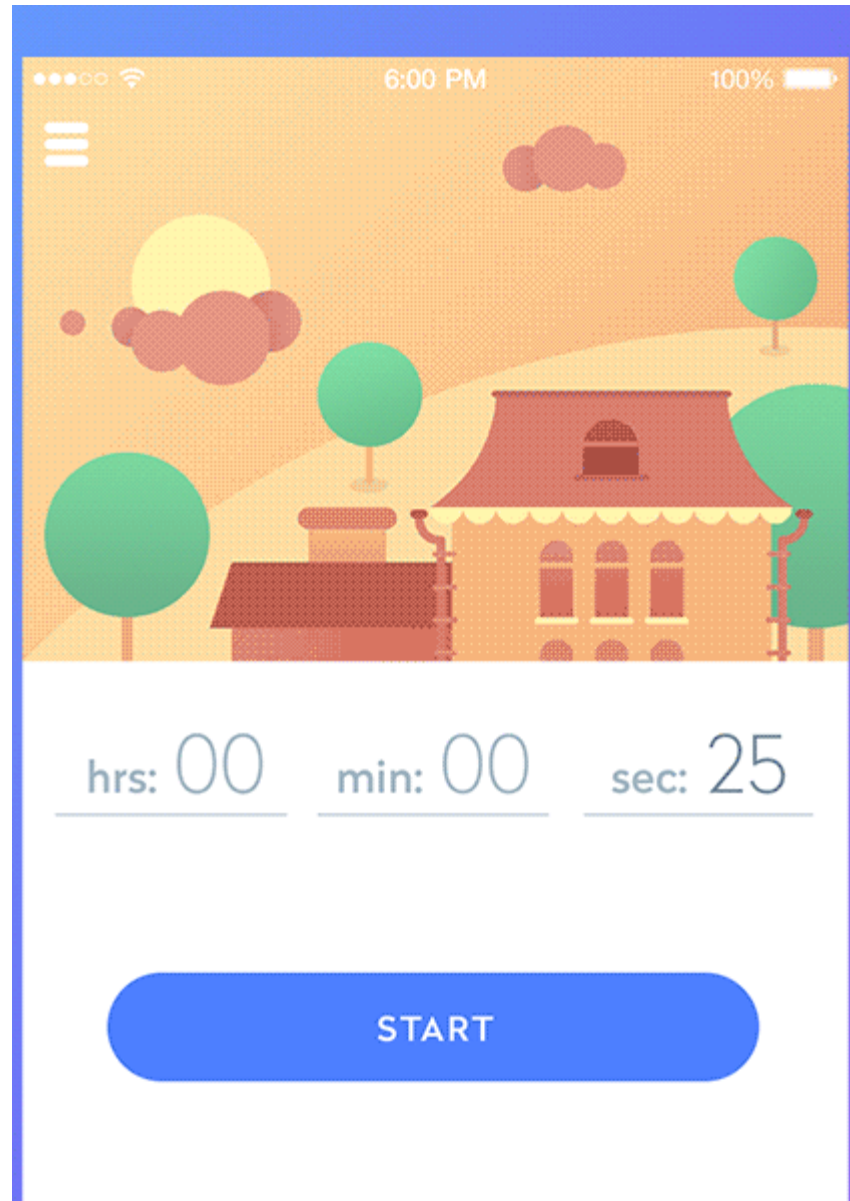
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- Bar is a section of the user interface with **clickable elements** enabling a user to quickly take some core steps of interaction with the product or it can also inform the user on the **current stage** of the process. Among the basic types of bars, we could mention:
  - **Tab bar** – in mobile applications, it appears at the bottom of an app screen and provides the ability to quickly **switch between different sections** of an app.
  - **Loading bar** – the control informing the user on the current stage of action when the process is in the active stage and the user can see the flow via timing or percentage shown in progress.
  - **Progress bar** – provides feedback on a result of the current process so far, for example, showing how much of the **planned activity** has been done.

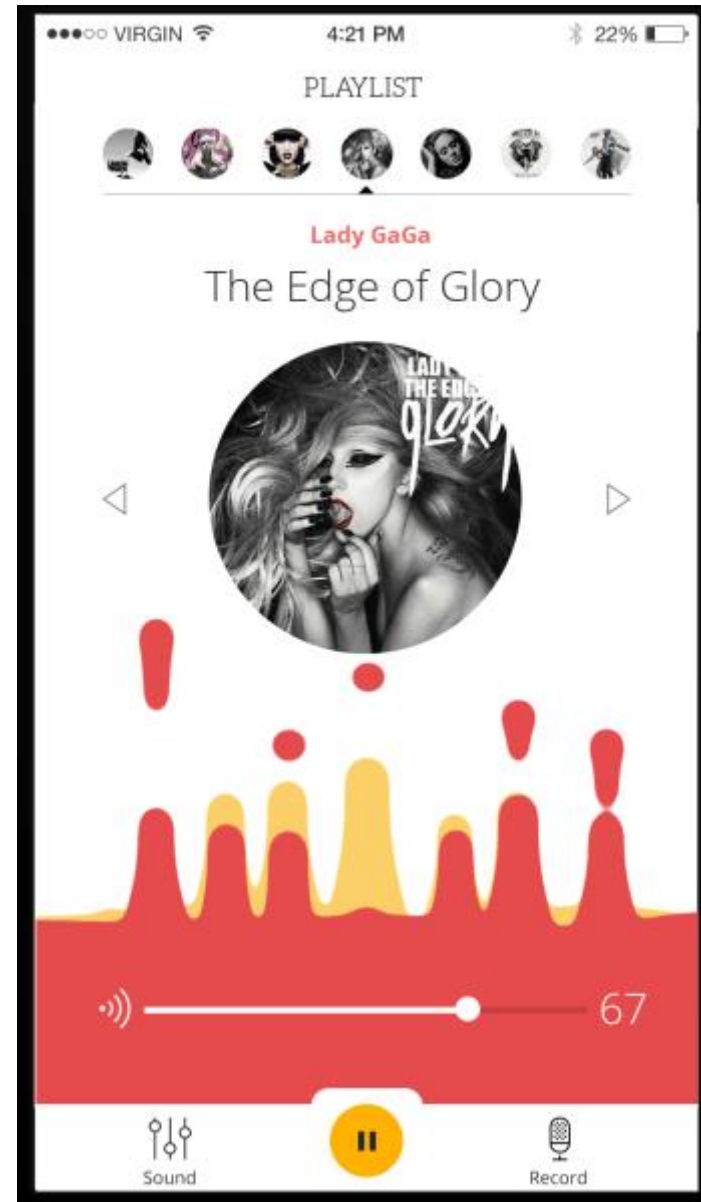
Tab bar



Loading bar



Progress bar



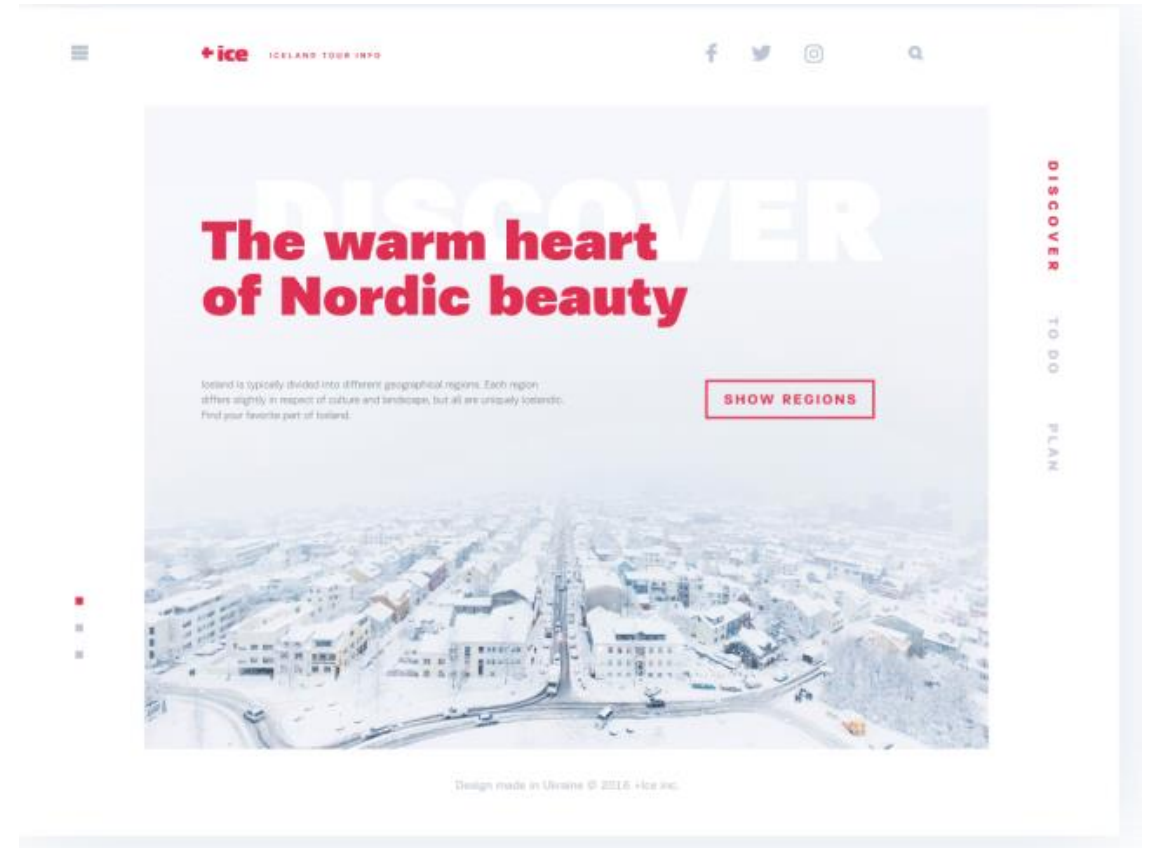
# Button

- Button is, perhaps, one of the most popular elements of any interface.
- Button is the element that enables a user to get the appropriate **interactive** feedback from the system within a **particular command**.
- A button is a control with which the user **directly communicates** to the digital product and sends the necessary commands to achieve a particular goal, like, let's say, **send** the **email**, **buy** a product, **download** the data, turn on the player and tons of other possible actions.

# Hamburger button

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- The button **hiding the menu**: clicking or tapping it, a user sees the menu expanding. It is called so as its form consisting of **three horizontal lines** looks like a typical bread-meat-bread hamburger.
- Nowadays it is a typical element of interaction, still highly **debatable** due to the number of pros and cons.

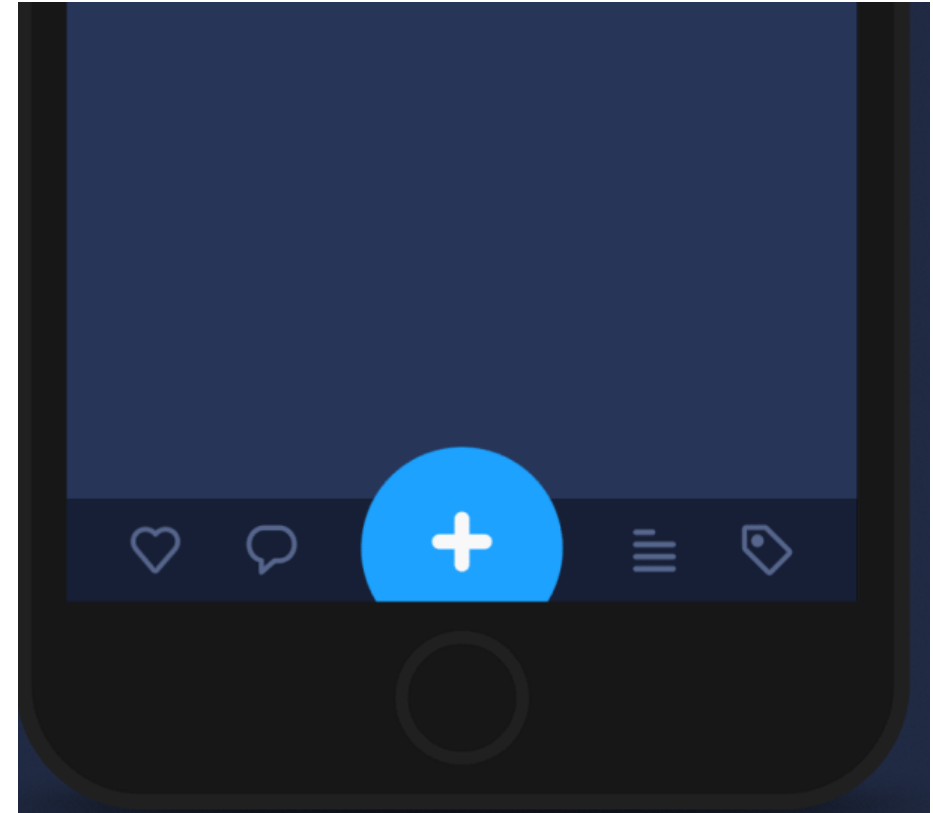




# Plus button

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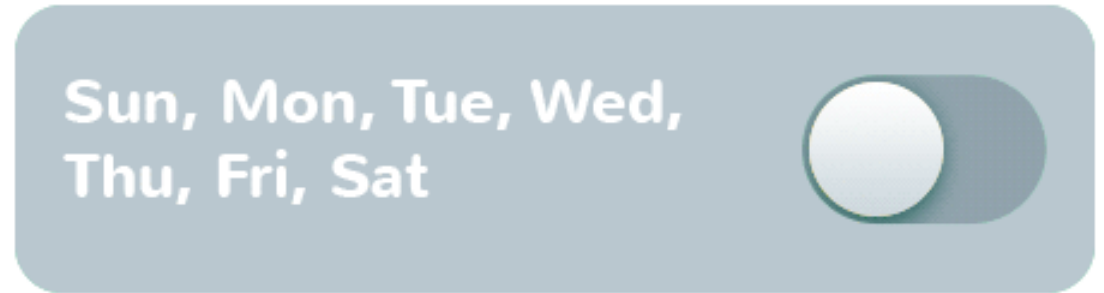
- The button that being clicked or tapped presents the ability to **add new** content, be it a **new contact, post, note**, position in the list – anything user could do like the basic action with the digital product.
- Sometimes, tapping this button, users are directly transferred to the **modal** window of creating content, in other cases, there is also a medium stage when they are given **additional options to choose** from and make adding the particular piece of data more focused.



# Switch

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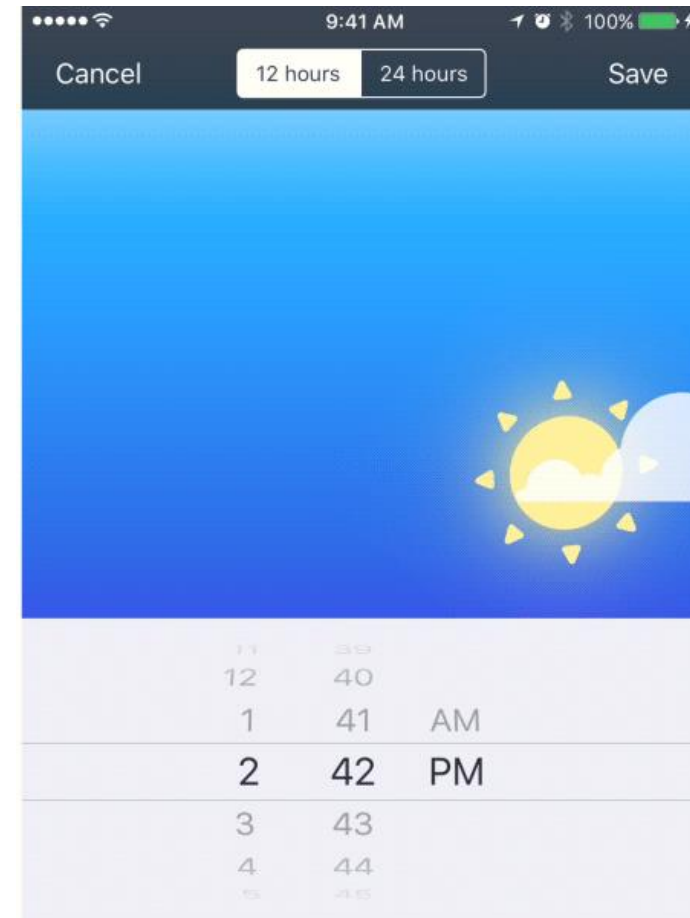
- Switch is a control that enables users to switch the option on or off.
- The important point of consideration here is that **states** of the switch should be **visibly** clear and distinctive so that users could avoid applying effort to understand if the option is active or not.
- Various sorts of contrast and slight animation can solve the problem by making the experience simple and user-friendly.



# Picker

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- The picker allows users to **pick the point** from the row of options.
- It usually includes one or several **scrollable lists** of distinct values, for example, hours, minutes, dates, measurements, currencies, etc.
- Scrolling the list, users **choose** and set the **needed value**.
- This type of interactive element is widely used in the interfaces which have the functionality of setting **time** and **dates**.



# Checkbox

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- A checkbox is a graphical UI element that is used to mark a particular piece of content, usually setting the choice for the **binary options**.
- It is another element setting the bridge with the real world as it looks really similar to the process of filling in **tests, questionnaires** and other stuff of this kind when you put a tick or color the box to **mark the option**.
- Checkboxes and switches can be found in any type of user interface, especially in the sections of the user, screen or **page settings**. Also, checkboxes present a common part of navigation in apps and websites with the functionality of task managers, **to-do lists**, time trackers and the like.



# Splash screen

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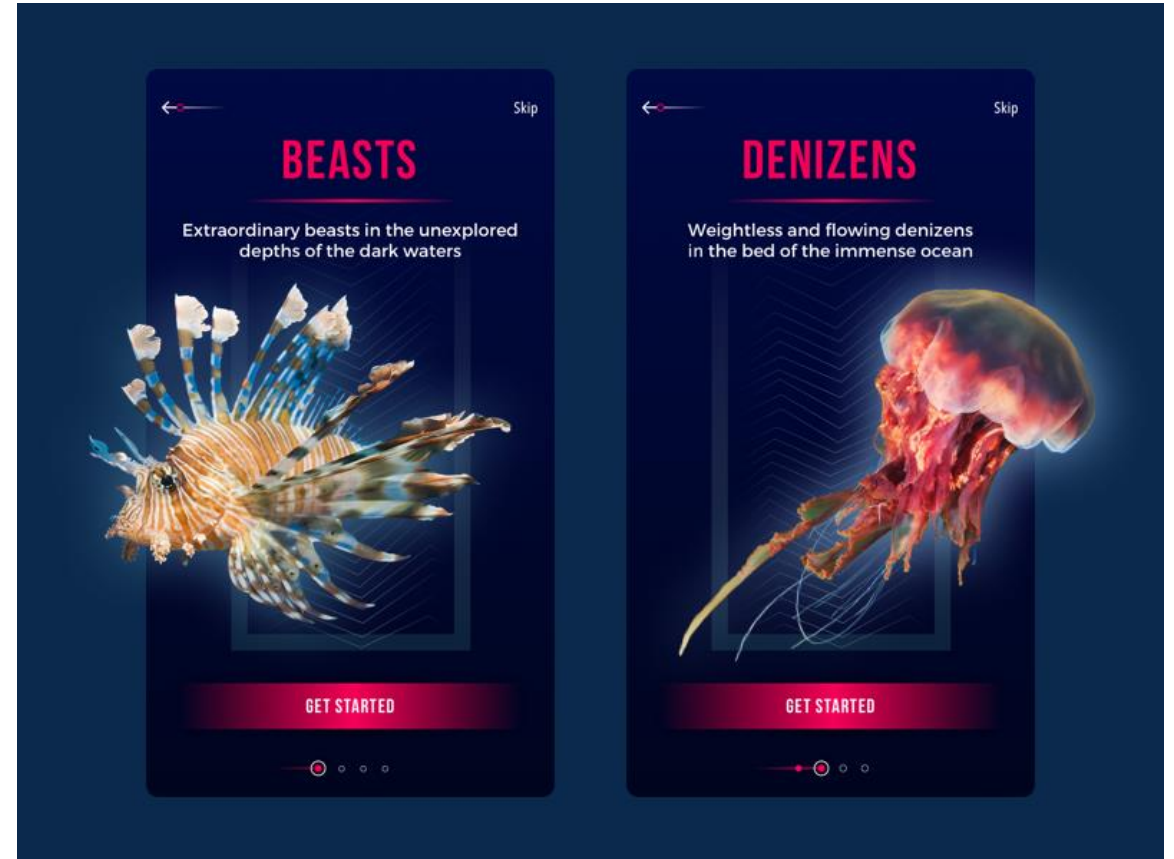
- Splash screens are the **first image** users see launching a mobile application.
- They are usually minimalistic and present a **name, logo, or slogan** of a product.
- To make sure splash screen will look good on different devices, designers often **focus** the elements in the **middle** of the screen.
- Splash screens are recommended to be shown no **longer than 4-8 seconds** otherwise users may get annoyed.



# Onboarding tutorial screens

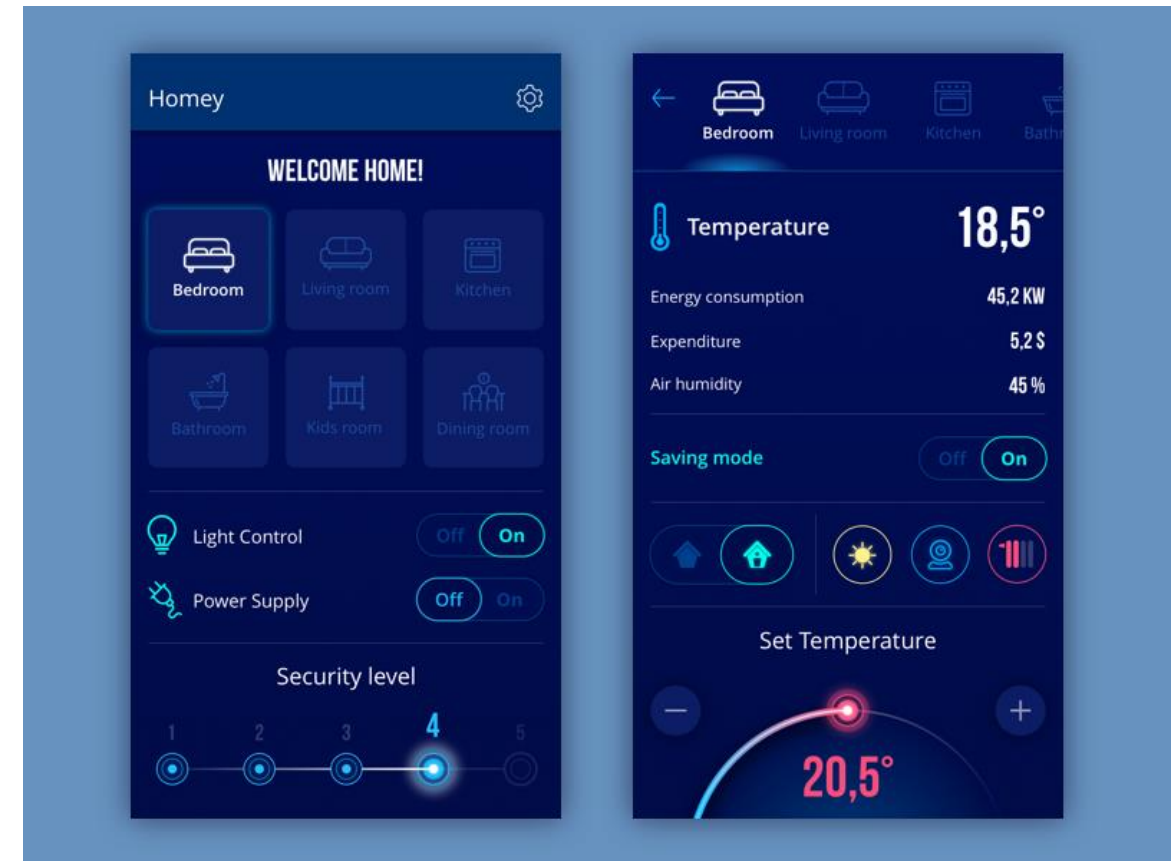
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- Onboarding tutorial is a set of screens **presenting** a mobile app, its **navigation system**, **features** and **benefits** which the application could bring to the possible users.
- They appear to users who launch the app for the first time **helping** them get **oriented** within unfamiliar **features** and controls as well as **understand** if the **application** can be useful for them.



# Home screens

- Home screen is an **essential part** of any application.
- In the context of mobile apps, it's the main screen from which users **interact** with **most options** of the application.
- Home screens are designed depending on the **type of product** and its purpose still there are some key elements common for different kinds.
- First of all, the main screen usually includes the **search** field or button so that users could easily search for the content they need.
- Also, since the home screen is a start point for the user journey, it **often contains navigation elements** providing access to the various content sections

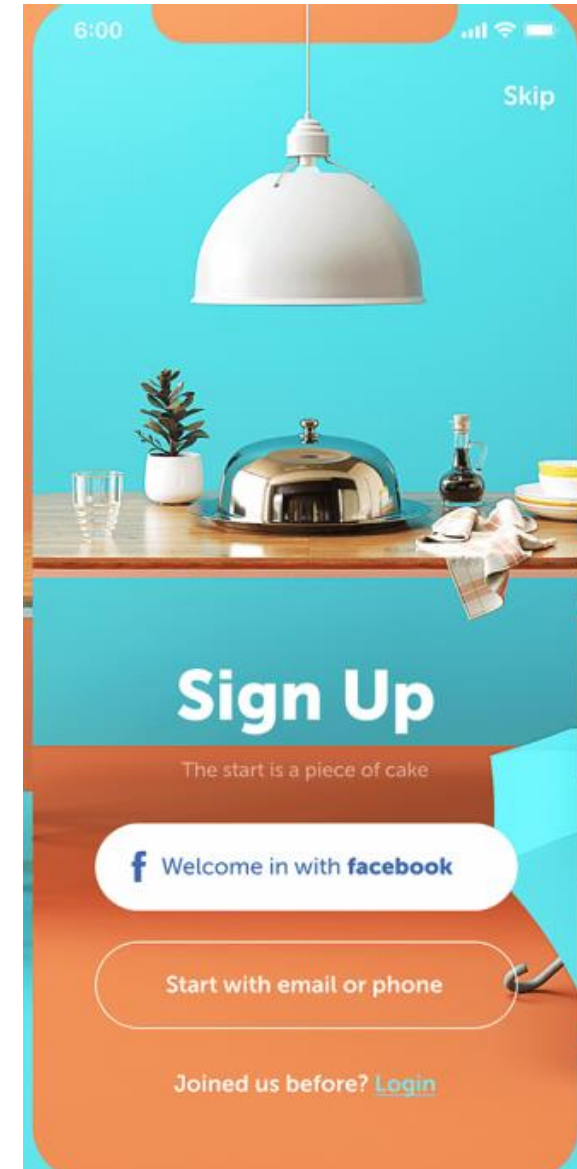




# Log-in (Sign-in) screen

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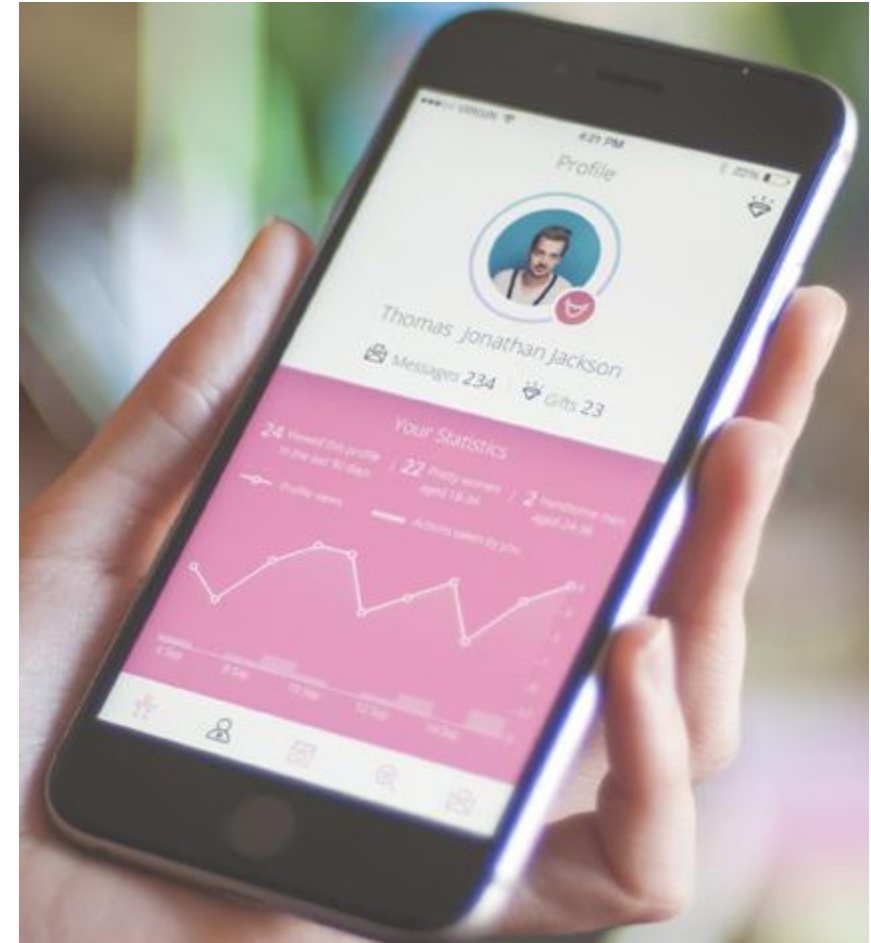
- Today many applications offer users creating their **personal accounts**, so every designer needs to know how to work with log-in and profile screens.
- Log in screens should be minimalistic and clear so that users could **easily access the application**.
- There are usually two fields where users can enter their **name** and **password** along with the confirmation button.
- For people using the app for the **first time**, there always must be the **sign-up** option.



# Profile screen

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- Profiles make interaction within the mobile application more **personalized** and allow operating with the data effectively.
- Also, a personal account is a **key part of any social network app** which involves the user into the virtual community of the network and enables to share the personal info with the others.



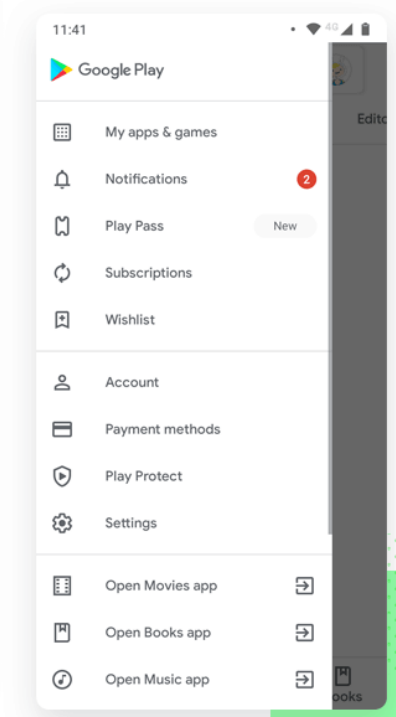
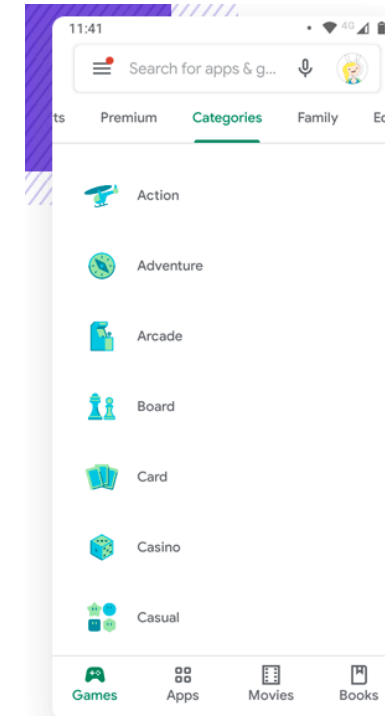
# Patterns for Mobile Navigation

- Good **navigation design** makes it effortless for you to move between the different screens of an app,
- It is intuitive and makes you **feel in control** the whole time
- Letting you know where you **are going** and **where you are** at all times.
- Some of the most common **types of mobile navigation**:
  1. Hamburger Menu
  2. Tab Bar Navigation
  3. Gesture-Based Navigation
  4. Full-Screen Navigation
  5. Cards

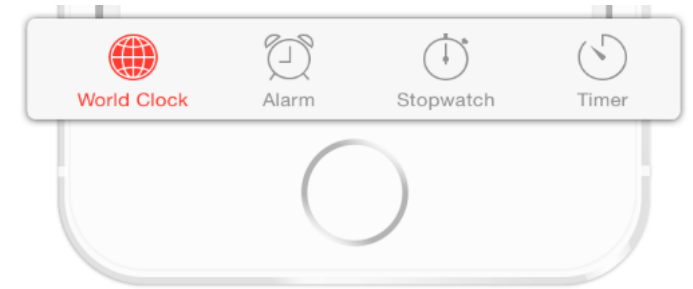
# Hamburger Menu (or side drawer)



- It is usually found on the **left top corner** of the screen, and it usually appears as 3 lines stacked on top of each other.
- **It's not recommended** as the main navigation menu
- It is appropriate solution for **secondary navigation** options which provide features(options) that are important for users only in **certain circumstances**
- **PROS :**
  - Large number of navigation options
  - Clean design
- **CONS :**
  - Less **discoverable**
  - **Clashes** with platform navigation rules (**iPhone**)
  - **Extra action** is required to move to the target destination.



# Tab Bar Navigation



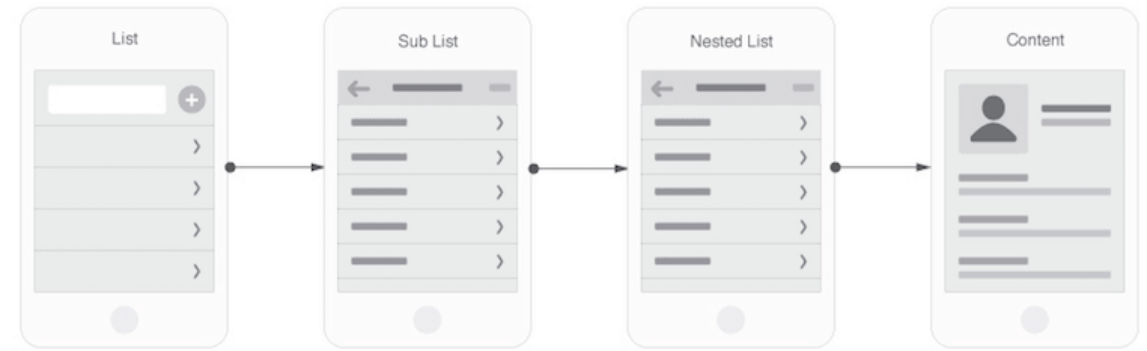
- Great alternative to a hamburger menu for mobile design, **suitable for the main navigation** menu
- Appear as a **static bar** at the **bottom** or **top** of the screen (icon or label for each tab)
- Contains relatively **few destinations**, and those destinations are of **similar importance** and require **direct access** from **anywhere** in the app.
- The tab bar makes the main pieces of **core functionality** available with **one tap**, allowing rapid switching between features
- **PROS :**
  - **very intuitive** and are a clear indicator of the **user's journey** in the app
  - **consistency** throughout the app
  - **Immediate access** compared to a hamburger menu (**one-Step to access**)
- **CONS :**
  - **occupy more space** than other navigation types
  - **Limited number** of tabs
  - ~~Extra action is required to move to the target destination.~~

# Gesture-Based Navigation

- when users want to explore the details of particular content **easily** and **intuitively**.
- Users will **spend** more time with **content** than they will with navigation menus.
- as users view page content, they can tap on a card to learn more.
- **PROS :**
  - **Reduces** the use of **buttons** in some instances
  - Once learnt, **increases the ease** of use of the app
  - Enhance the actions of other navigation buttons such as a **back button** by **swiping right** on the screen
- **CONS :**
  - The navigation is **invisible**.
  - User **effort increases** (in beginning of use).
  - require **prior explanation** to establish a relation between gesture and function



# Full-Screen Navigation

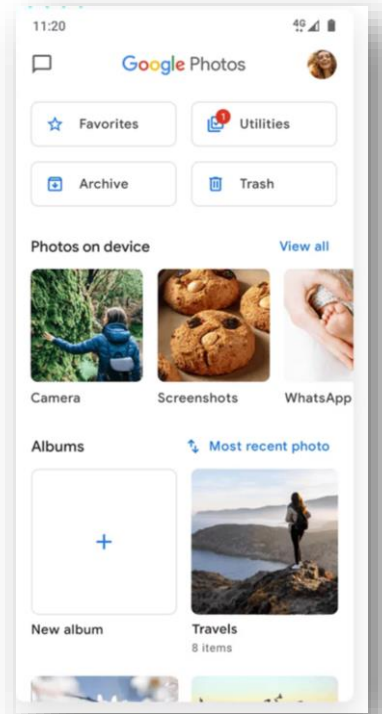


- Devotes the home page **exclusively to navigation**. Users incrementally tap or swipe to reveal **additional menu** options as they scroll up and down.
- Works well in **task-based** and **direction-based** apps, especially when users tend to **limit** themselves to only **one branch** of the navigation hierarchy
- Funnelling users from broad **overview pages to detail pages** helps them to home in on what they're looking for and to **focus on content** within an individual section.
- **PROS :**
  - Allows for **multiple levels**
  - best for achieving **simplicity** and coherence
  - once the user makes their decision about where to go, then you can **dedicate the entire screen space to content**.
- **CONS :**
  - You won't be able to **display** any content except the **navigation options**
  - **occupies** the whole screen and does not allow other content than the menu itself



# Cards Navigation

- They come in all shapes and sizes and are a **great way** to showcase various elements such as text, a link, or a photo in one place and have become **very popular** in **mobile app** navigation.
- Cards have been proven to be a great way to **aggregate** individual pieces of information in **one place**
- **PROS :**
  - easily **adapted** to different **screen sizes**, making them a great option for **responsive** apps.
  - can be **personalized** to display different content.
  - can be **scrolled** horizontally, improving general **usability**
- **CONS :**
  - Excessive information **could confuse** users





Q & A

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