

Mobile Application Design and Development

Mobile Mindset

Introduction to the module

Module Code: IT2010

Credit Value: 4

Method of Delivery

- Lectures – 2 hours
- Tutorials Labs – 1 hour
- Labs - 2hours

Courseweb Enrollment Key: IT2010

Assessment Criteria

Continuous Assessments

- Midterm Examination (Online) - 20 %
- Mini Project (Group Project) - 30 %

End Semester Assessment

- Final Examination - 50 %

Learning outcomes of this lecture

At the end of this Lecture students will be able to

- Comprehend the important features of mobile applications
- Identify the requirement for mobile app development
- Understand the user behaviors of mobile applications
- Classify different types of mobile devices

Why a Mobile App?

- Mobile phones are no longer the ordinary communication device. It has various incredible features and opportunities offered to the users.
- The number of smartphone users is forecast to grow from 2.1 billion in 2016 to around 2.5 billion in 2019.
- Business organizations are more into building a mobile application for their business instead of investing in a mobile friendly version of their website.
- Good mobile application will add value to a business.



Key features of mobile applications

1. Great UI (User Interface)
2. Fast loading time and high performance
3. Extremely helpful user support
4. Adapts to a user's needs
5. Compatible with a mobile platform



Key features of mobile applications

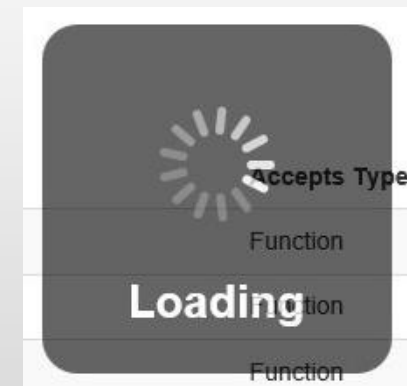
1. Great UI (User Interface)

- Design the interfaces to attract target user attention.
- Focus on the primary task of the app.
- Make the key components of the app easy to use by users.
- Mitigate design elements that don't add a use or function to the app. Keep in mind that, in most cases, the user is operating from a mobile device with a small touchscreen.

Key features of mobile applications

2. Fast loading time and high performance

- Take less than five seconds to load. If the loading time exceeds more than five seconds, then consider taking the user to a “loading” screen, which informs them that the loading process is on.
- Cache the images used in the app.
- Compress and resize images.
- Re-use data templates



Key features of mobile applications

3. Extremely helpful user support

- Create a FAQ section to handle user support.
- Consider outsourcing customer support for individual inquiries.
- Make sure that customer support will answer users' questions quickly.



Key features of mobile applications

4. Adapts to a user's needs

- Consider user reviews and fix the identified bugs after deploying the app.
- Introduce new features and streamline the way they operate with each update.



Key features of mobile applications

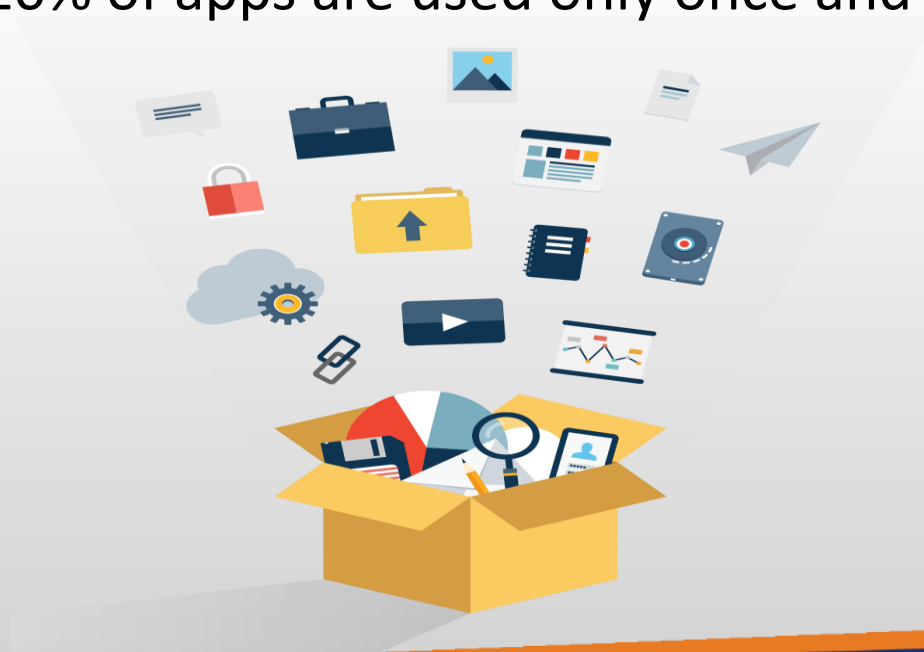
5. Compatible with a mobile platform

- Ensure that the app is completely compatible with the mobile platform it is developed for.
- Pay attention to the features and traits of the platform, as well as the guidelines and work environment.
- Avoid using unfamiliar features that don't fit into the framework of that mobile platform.



User behaviors of mobile applications

- Most smartphone users have more than 50 apps on their phones and it's easy for your app to get lost in the saturated and competing marketplace.
- more than 20% of apps are used only once and abandoned



Hailo

Hailo is a mobile app that you use to 'hail' cabs from your phone. Think Uber, but instead of recruiting drivers with black cars, Hailo works within the confines of yellow cabs. With \$100 million in funding, it hit NYC in early 2013.



Hailo - Why did it fail?

- Main causes for the failure of Hailo are identified as;
 - Intense competition
 - Flawed business model

Hailo's whole premise is that taxi drivers need help finding fares. Turns out, that's not actually the case – the yellow cabs in NYC have been ticking along just fine on their own, and Hailo just wasn't that necessary.

Reasons for mobile apps failure

- The app doesn't have a market
- The app does not have adequate security
- The app does not perform quickly enough
- The app does not fully consider UX/UI
- The app's listing in the marketplace is not persuasive



Introduction to mobile devices

- A mobile device is a computing device small enough to hold and operate in the hand.
- Many such devices can connect to the Internet and interconnect with other devices such as car entertainment systems or headsets via Wi-Fi, Bluetooth, cellular networks or near field communication (NFC).
- Integrated cameras, digital media players, the ability to place and receive telephone calls, video games, and Global Positioning System (GPS) capabilities are common in these devices.

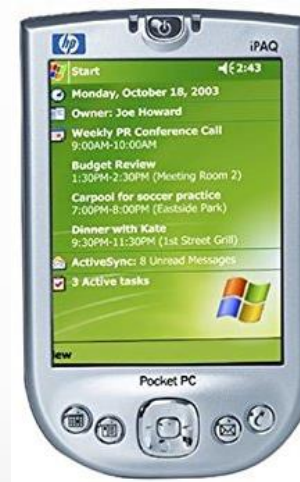
Mobile devices - Examples



Palmtop



Tab computer



Pocket PC



Smartwatch



PDA
(Personal digital assistant)



Smart Phone



Bluetooth headset



Cell Phone

Thank You