



SNS COLLEGE OF TECHNOLOGY



(An Autonomous Institution)

Re-accredited by NAAC with A+ grade, Accredited by NBA(CSE, IT, ECE, EEE & Mechanical)
Approved by AICTE, New Delhi, Recognized by UGC, Affiliated to Anna University, Chennai



Department of MCA

Topic: Mobile Platform

Course: Mobile Application Development

Unit : I – Getting started with Mobility

Class / Semester: II MCA / III Semester

Mobile Platforms

- ❑ A suite of software tools used for designing, creating and maintaining *mobile* applications
- ❑ Also provides testing applications, measuring mobile analytics and creating interfaces for profiling application performance



Mobile enterprise application platform, which provides mobile application tools for businesses



Mobile Platforms

- ❑ Operating systems (OS) is stack of programs that manages the computing resources
- ❑ A mobile platform is not just an operating system, but a software stack that typically comprises
 - ❑ **An operating system**, core features are memory management, process management, and various device drivers
 - ❑ **Libraries** – furnish media libraries that provide codecs, libraries for native data storage, libraries for rendering screens and drawing surfaces, and libraries for graphics
 - ❑ **Application development framework(s)** - the set of Application Programming Interfaces (APIs) that in turn interact with the underlying libraries, and are exposed to the developers for app development

Mobility Solutions

❑ **Three key aspects** driven the mobile application development

1. Business use case that the app is going to mobilize. It can be
 - Business-to-consumer (B2C)
 - Business-to-Employee(B2E)
 - Business to Business (B2B)
2. Business-Profile of the user who is going to use the app
3. Device that plays app

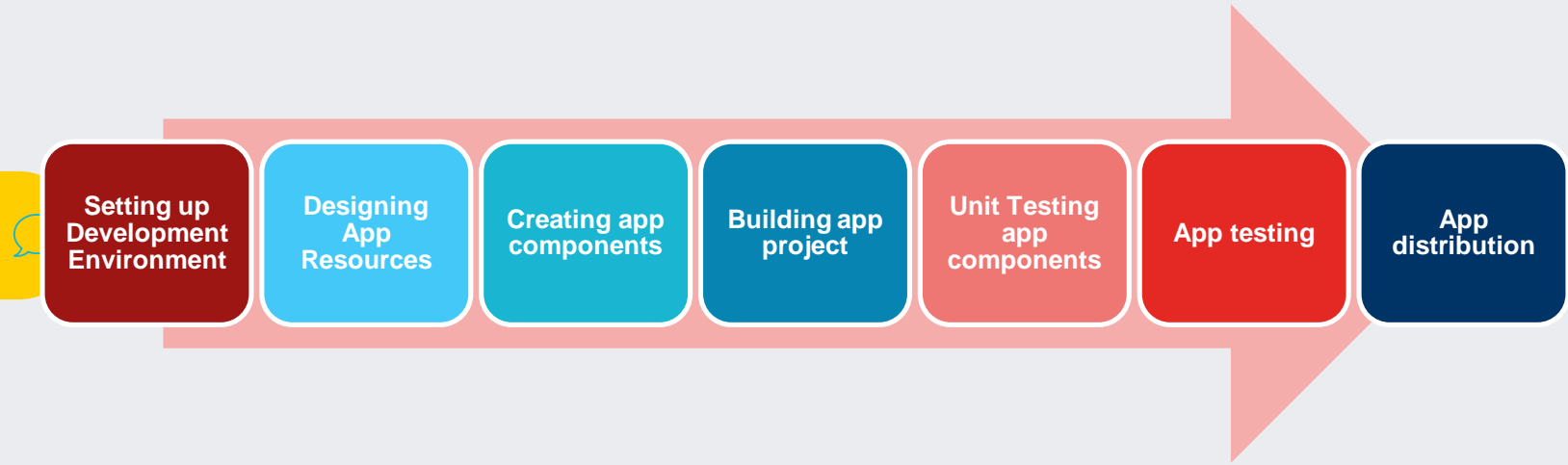
- ❑ These 3 factors determine the app development requirements with respect to
 - user experience
 - device diversity
 - offline capabilities
 - security, backend integration,
 - app life cycle management, etc

Criteria for Mobile Platform

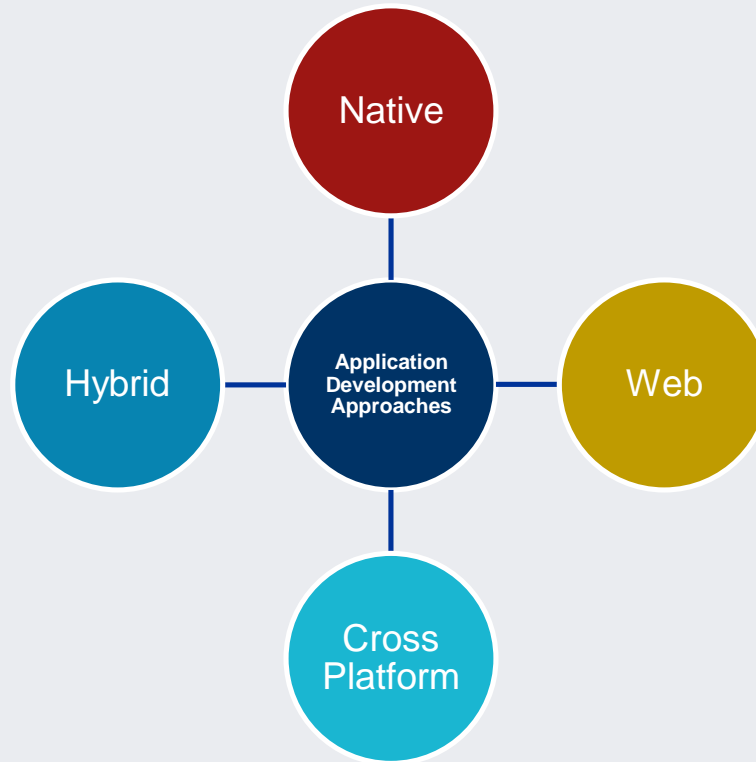
- ☐ Multi-platform and multi-channel capability
- ☐ Support for Agile programming
- ☐ Security
- ☐ Open standards
- ☐ Governance
- ☐ Support for future



Mobile App Development



Criteria for Mobile Platform





References



- ❑ Anubhav Pradhan, Anil V Deshpande, “Composing Mobile Apps using Android”, Wiley Edition, 2014
- ❑ <https://www3.microstrategy.com/getmedia/3b8a2ee7-7629-4da4-9d1b-f02bd129a051/mobility-landscape-microstrategy.pdf>



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Mobile App Development

1. UI Design Principles

- Structure
- Simplicity
- Visibility
- Feedback
- Tolerance
- Reuse

2. Mobile App Design Process

- Notifications
- Home Screen
- Tracking Progress
- Viewing a Lesson
- Viewing a Word

3. How Do We Build It?

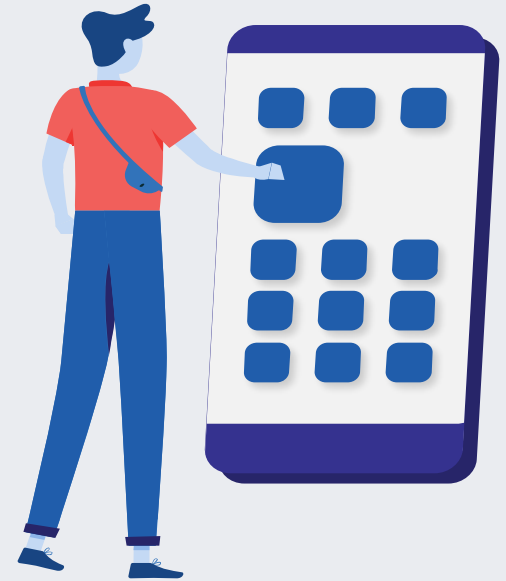
- Sketching Our App
- Onboarding

4. Testing Your Designs

- Determine Layout With Boxes

5. Designing a Mobile App

- ❑ A mobile app wireframe is a 2D sketch that serves as a visual guide and illustrates how an application will work
- ❑ App owner and development team can use a wireframe to agree and clarify the entire project's direction and scope
- ❑ A wireframe doesn't represent the full design of the app, but only the key screens and interface elements
- ❑ Most wireframes make use of grayscale only
- ❑ Wireframe Helps You Understand Your App Better
- ❑ It Keeps the Development Process User-Centric

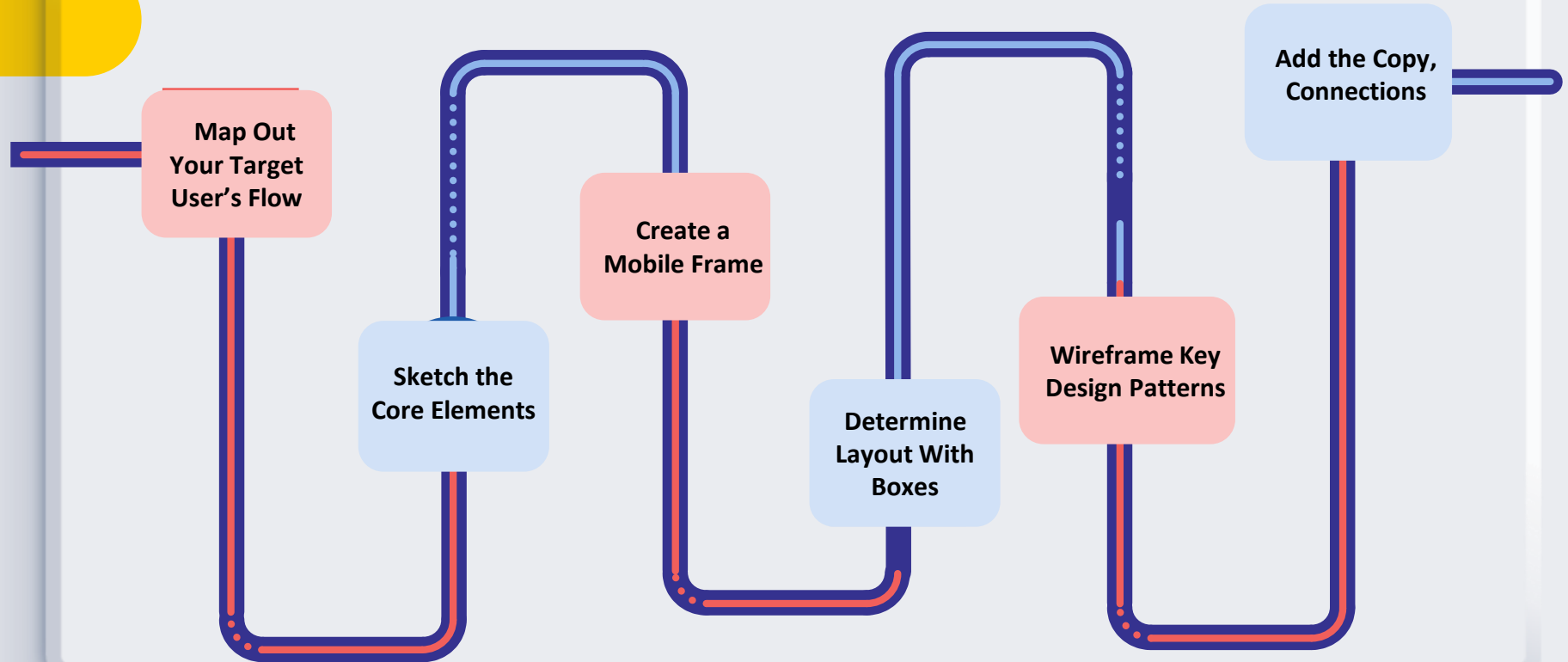




Principles

- ☐ User focused and color psychology
- ☐ Consistency
- ☐ Minimize input
- ☐ Fast loading
- ☐ Predictable Navigation
- ☐ Do app design for humans

Criteria for Mobile Platform





References



- ❑ Anubhav Pradhan, Anil V Deshpande, “Composing Mobile Apps using Android”, Wiley Edition, 2014
- ❑ <https://www3.microstrategy.com/getmedia/3b8a2ee7-7629-4da4-9d1b-f02bd129a051/mobility-landscape-microstrategy.pdf>