

BCA Optimized Notes by Yash

Semester IV - Mobile Programming

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Unit 1 - Chapter 1

Mobile Programming

Mobile programming is software development for mobile devices.

Types

There are two types of mobile programming.

Native Programming - Single Platform	Hybrid Programming - Multiple Platforms
Faster and more reliable	Usually slower
Different languages for different platforms	Single language for all platforms
Cost of development is high	Cost of development is low
Allows usage of device-specific functionalities	Limited usage of device-specific functionalities

Flutter

Flutter is an open-source UI framework developed by Google that allows developers to build native-quality mobile, web, and desktop applications from a single codebase.

Key Components

- **SDK (Software Development Kit)**
 - A set of instruments that serve as aid in development of applications.
 - Includes tools for converting code to native machine code.
 - Works on code for iOS and Android.
- **Framework (UI Library using Widgets)**
 - A set of reusable user interface components.
 - They can be customized according to the developer's purposes.
 - Components include buttons, text inputs, slides, etc.

Dart

Dart is an open-source general-purpose programming language developed by Google. It supports application development in client and server sides.

Unit 1 - Chapter 2

Basics of Dart

Keywords

assert	default	finally	rethrow	try
break	do	for	return	var
case	else	if	super	void
catch	enum	in	switch	while
class	extends	is	this	with
const	false	new	throw	
continue	final	null	true	

Data Types

Types	Keywords
Numbers	int, double
Strings	string
Booleans	bool
Records	((value1, value2))
Lists	(list)
Sets	(set)
Maps	(map -> key value paired data)
Null	null