



OverView

Apa yang Membuat Kotlin Lebih Baik Dari Java...?

Ringkas

Aman

Interoperable

Tool-Friendly

Hello World Kotlin

Variable & Tipe Data Basic

Type of data pada Kotlin

Basic Type

Numbers

Characters

Ranges

Type Conversion

Operators

Arithmetic Operator

Assignment Operator

Decrement Operator

Comparison & Equally Operator

Logical Operator

in Operator

Index Access Operator

Invoke Operator

Comments

Input Output

Kotlin Output

Perbedaan println() dan print():

Kotlin input

if Expression

Contoh : if dengan Multiple Expressions

Susunan if..else..if Kotlin

Nested if expression Kotlin

Expressions

o When



Loop

- For Loop
- While Loop
- do..while

Break Statement

Continue

Function

- Kotlin Standard Library Function
- User-defined Function

Kotlin Recursion (Recursive Function) dan Tail Recursion

- Recursion

Tail Recursion

Lambda

Exception Handling

Null Safety

- Smart Cast
- Assertion(Tuntutan)
- Menghilangkan Null dari Iterable dan Array
- Null coalescing / Elvis Operator
- Nullable dan Non-Nullable
- Elvis Operator (?:)
- Safe Call Operator

Collections

- Using list
- Using map
- Using set

Reflection

- Referencing a class
- Inter-operating with Java reflection
- Referencing a function
- Getting values of all properties of a class
- Setting values of all properties of a class

Kotlin OOP



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Classes dan Object

Class

How to define a class in Kotlin?

Objects

Constructor

Primary Constructor

Secondary Constructor

Getter Setter

Inheritance

Important Notes: Kotlin Inheritance

Overriding Member Functions and Properties

Calling Members of Base Class from Derived Class

Visibility Modifier

Visibility Modifiers Inside Package

Visibility modifier di dalam class dan interface

Mengubah Visibility dari sebuah constructor

Abstract Classes

Interfaces

Mendefinisikan interface?

Mengimplementasikan interface

Cara Kerja

Mengimplementasikan dua atau lebih interface dalam satu Class.

Menyelesaikan conflicts overriding (Multiple Interface)

Kotlin Nested and Inner Class

Kotlin Nested Class

Kotlin Inner Class

Data Class

Copying

toString() method

hashCode() and equals()

Destructuring Declarations

Sealed Class

Example: Sealed Class

Difference Between Enum and Sealed Class

Object Singleton

Object Declarations

Kotlin object Expressions

Object Companion



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Generics
Extension Function
Operator Overloading

Getting Started With Android Studio Using Kotlin

Mengenal Android Studio.

Menginstall Android Studio

Mengenal SDK (Software Development Kit)

Creating Our First Android App Using Kotlin
Running Aplikasi in AVD
Project Structure

Mengenal Struktur Aplikasi Android Lebih Dalam

Activity, User Interface dan Views

Activity

Activity Lifecycle

onCreate()
onStart()
onResume()
onPause()
onStop()
onDestroy()
onRestart()

XML File

Linear Layout

Relative Layout

View & Widget View

User Interface

Design Layout dan handle Event

Navigating Between Activities

Using Implicit Intent

Mengimplementasikan List dan Classes

Recycler View

Card View

Mengimplementasikan RecyclerView

Untuk itu kita perlu :

Menambahkan Dependency :



com.android.support.design:24.2.0

Menambahkan XML layout :

Menyiapkan Data Model

Membuat Class Custom Adapter

Menghubungkan Custom Adapter dengan RecyclerView

Set Layout untuk RecyclerView

Leverage The Power Of Kotlin

Code Cleanup

Extension Function

Default Parameters

Finishing Touch

String Localisation

Update App Launcher Icon

Styling App : Color

Styling App : Theme

Aplikasi Hitung Umur

Preview

Design Layout

Debug and Find Errors

Aplikasi Kebun Binatang

ListView Layout Design

Model

AnimalInfo(detail)

MainActivity

Adapter

Support Difference image size

Aplikasi Masakan Nusantara

Desain GridView Layout

Model

Load Data

Adapter

FoodDetails.kt

Sunrise App

HTTP Request



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Json & Xml

 Json

 Xml

Layout

HTTP Call dan Json Read

Aplikasi Catatan

List Layout

Catatan Dummy

Layout Tambah Catatan

Menambahkan MenuBar dan Intent

AddNote to SQLite Database

Load database

Delete Note

Support Different Languages

Activity Lifecycle

Firestore

Connect to Firestore

Firestore Authentication

 Design Layout

 MainActivity.kt

Media Player For Online & Local

Desain Background , Color dan View

Play Online

Local Play

Firestore | Aplikasi Sosial Media

Desain Login Layout

Load Image From Phone

Upload to Firestore

Desain Layout Main Page

Firestore Cloud Messaging

Developer Account

Build & Release Aplikasi.

Upload Aplikasi Ke Playstore.



IT Training Center - IoT Solution - Software Development

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