A DEMONSTARATION OF TEXT INPUT AND VALIDATION WITH AND ROID COMPOSE

INTRODUCTION

A text input allows user to enter any combination of letters, numbers, or symbols. Text input boxes can span single or multiple lines. The <input type=”text”> define a single-line text field. Input validation is the process of testing input received by the application for compliance against a standard define within the application. It can be as simple as strictly typing a parameter and as complex as using regular expressions or business logic to validation input.

KOTLIN

Take your first steps programming in kotlin, add images and text to your Android apps, and learn how to use classes, objects, and conditionals to create an interactive app for your users.

Kotlin is a modern, trending programming language that was released in 2016 by JetBrains.

It has become very popular since it is compatible with java(one of the most popular programming languages out there), which means that java code(and libraries) can be used in kotlin programs.

Kotlin is used for:

* Mobile applications(specially Andriod apps)
* Web development
* Server side applications
* Data Science

Why use kotlin?

* Kotlin is fully compatible with java
* Kotlin works on different platforms(Windows, Mac, Linux, Raspberry Pi,ect.)
* Kotlin is easy to learn , especially if you already know Java
* Kotlin is free to use
* Big community/support

If you are an Android developer, you have probably heard of this cool new programming language on the block: kotlin.

Unless you have been living under a rock you have also read about the recent announcement from google during google I/O that kotlin is now the preferred programming language for Android.

The language kotlin was named after the kotlin Island, near St.Petersburg in Russia. It was chosen just as Java was the name of an island off Indonesia.

Kotlin is across-platform, statically typed, general-purpose programming language with support for type inference. It was designed by jetbrains (the company behind Intellij IDEA), and was designed to interoperate fully with Java.

Kotlin mainly targets the JVM but also compiles to JavaScript or native code(via LLVM).

Just when you thought that you have mastered Java, here comes a new language! In this article, I am not going to assume that you have any specific background, but I will try discuss most of the language’s features so that you can become productive straight away.

On 7 May 2019, Google announced that the Kotlin programming language is now its preferred language for Android app developers.

Since the release of Android Studio 3.0 in October 2017, Kotlin has been included as an alternative to the standard Java compiler.

The Android Kotlin compiler produces Java 8 bytecode by default (which runs in any later JVM), but lets the programmer choose to target Java 9 up to 19, for optimization, or allows for more features; has bidirectional record class interoperability support for JVM, introduced in Java 16, considered stable as of Kotlin.

HISTORY OF KOTLIN:

In July 2011, JetBrains unveiled Project Kotlin, a new language for the JVM, which had been under development for a year.

JetBrains lead Dmitry Jemerov said that most languages did not have the features they were looking for, with the exception of Scala.

However, he cited the slow compilation time of Scala as a deficiency.One of the stated goals of Kotlin is to compile as quickly as Java. In February 2012, JetBrains open sourced the project under the Apache 2 license.

The name comes from Kotlin Island, near St. Petersburg. Andrey Breslav mentioned that the team decided to name it after an island, just like Java was named after the Indonesian island of Java (though the programming language Java was perhaps named after the coffee rather than the island).

Development lead Andrey Breslav has said that Kotlin is designed to be an industrial-strength object-oriented language, and a "better language" than Java, but still be fully interoperable with Java code, allowing companies to make a gradual migration from Java to Kotlin.

USES OF KOTLIN

As Kotlin, the successor of java, understanding the uses would be easier when known through comparing Java and Kotlin.

This can be used on both the source side and client-side also. It can be easily used in all operating systems like iOS, MacOS and embedded systems.

It is used by people in server-side applications, java scripts, and data science.

The code is written is less, and the bug count is also less in Kotlin, and it also supports test-driven development which reduces the number of bug count.

Even if you make a mistake while writing the code, you can correct it immediately.

It is easy to maintain because of its shortcod and fewer bugs; hence, it can also be handled by a new team.

It also supports multiple plugin’s, which makes one’s job much easier. Thus with these many uses, any programmer prefers this language.

ADVANTAGES OF KOTLIN:

* Debugging is easier in writing applications.
* Open-source platform.
* It runs on any operating system.
* Compiler efficient.
* Secure coding can be done.
* It has a modern and standard library.
* Semicolons are exceptional.
* Code is easy to understand.
* Support android development.

