

Github Link



<https://bit.ly/2O5bCPq>

Machine Learning with Firebase - ML Kit



Presented by Pankaj Rai



Agenda

- ✖ Kotlin features
- ✖ What is ML?
- ✖ What is firebase
- ✖ Firebase services
- ✖ Let's code



Why **Kotlin**?

An alternative or **replacement** of **Java**?



25% apps from top 1000 on
playstore uses kotlin



OpenSource



Jobs



Server



MONTHLY ACTIVE DEVS

Features of **Kotlin**?

Features

There are many more...

Higher Order Function

A higher-order function is a function that takes functions as parameters, or returns a function.

Extension Function

An ability to extend a class with new functionality without having to inherit.

Null Safety

Null Safety

All objects by default are non null and cannot accept null value.

Smart Casts

Smart Casts

the compiler tracks the is-checks and explicit casts for immutable values and inserts (safe) casts automatically when needed.

Higher Order Function

Extension Function

Scope Functions

Scope Functions

They offer a concise, elegant way to restrict the scope of variables in a useful way.



What is **ML**?

Machine Learning

It is the learning in which machine can learn by its own without being explicitly programmed. It is an application of AI that provide system the ability to automatically learn and improve from experience.

“A computer program is said to learn from experience **E** with respect to some task **T** and some performance measure **P**, if its performance on **T**, as measured by **P**, improves with experience **E**” - Tom Mitchell(1998)

What is **Firestore**?

Firestore



Firestore is Google's
mobile platform that
helps you quickly develop
high-quality apps and
grow your business.



Services of **Firestore**?



Cloud Firestore BETA

Store and sync app data at global scale



ML Kit BETA

Machine learning for mobile developers



Cloud Functions

Run mobile backend code without managing servers



Authentication

Authenticate users simply and securely



Hosting

Deliver web app assets with speed and security



Cloud Storage

Store and serve files at Google scale



Realtime Database

Store and sync app data in milliseconds



Crashlytics

Prioritize and fix issues with powerful, realtime crash reporting



Performance Monitoring

Gain insight into your app's performance



Test Lab

Test your app on devices hosted by Google



App Indexing

Drive search traffic to your mobile app



In-App Messaging

Engage active app users with contextual messages



Google Analytics

Get free and unlimited app analytics



Predictions BETA

Define dynamic user groups based on predicted behavior



A/B Testing BETA

Optimize your app experience through experimentation



Cloud Messaging

Send targeted messages and notifications



Remote Config

Modify your app without deploying a new version



Dynamic Links

Drive growth by using deep links with attribution

ML Kit

ML Kit lets you to bring powerful machine learning features in your app whether it's for Android or iOS.

There's no need to have deep knowledge of neural network or model optimization to get started.



**Machine Learning and the
Future of Journalism**



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