**ANDROID**

**HOW-TO**

Building android applications

on Java using Android Studio

Version 1.0

Muhamad Hafizudden

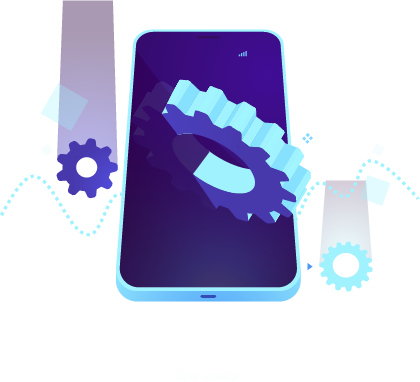


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Preface

The idea of publishing this android handbook popped out after I have been doing the same thing, over and over again. When I switched to another programming language, let’s say PHP to do the backend for quite a some time and then switched back to android programming, I was lost. I had to refer tutorials, online resources and refer to previous coding to keep in touch with everything. Even for experienced developer, we sometimes forget the syntax or the how-to-implement steps. Of course, we cannot have every coding stored right in our mind because sometimes we forget and having to memorize every coding is very exhaustive.

This android handbook complies the basic to intermediate steps on how to implement android navigation, accessing the device hardware, making use of google service, android material designs and many more. The content of this book will be updated from time to time, and will always be relevant to the current android development.

I hope that this handbook will help you to progress more on android development by putting aside the implementation details and focusing more on the app flow, system logic and system design. Adios!

Appreciation

I would like to express gratitude to myself,

for believing in myself,

doing the hard work,

and being the best self-motivation.

Hereby, I dedicate a poem that has been a great inspiration to me:

*Come to the edge, he said*

*They said “We can’t we are afraid”*

*Come to the edge, he said*

*They said “If we come, we will fall”*

*Come to the edge!*

*And so they came, and he pushed them, and they flew*

*What if we fall?*

*Darling, what if you fly?*

*Payah semalam, moga mudah selama.*

*(Hardwork of yesterday, may it ease the tomorrow forever)*

Version revisions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version** | | **Author** | **Change log** | **Position** | **Date** |
| 1 | 1.0 | Muhamad Hafizudden | Initial commit | Saya cuma ikan | 23/5/2020 |
|  |  |  |  |  |  |

1. Splash Screen:

Transition from ***SplashActivity*** to ***MainActivity****:*



**Checkpoint!!!**

Declare ***SplashActivity*** as launcher activity in manifest file

Use any of the methods:

begin

Use any of the methods:



*<application*

*…*

*<activity*

*android:name=”.SplashActivity”*

*<intent-filter>*

*<action android:name=”android.intent.action.MAIN” />*

*<category android:name=”android.intent.category.LAUNCHER” />*

*</intent-filter>*

*</application>*

Declare SplashActivity in manifest file





*new Handler().postDelayed( new Runnable(){*

*@Override*

*public void run(){*

*Intent intent = new Intent(SplashActivity.this, MainActivity,class);*

*startActivity(intent);*

*finish();*

*}*

*}, 3000);*





*private TimerTask task = new TimerTask(*

*@Override*

*public void run(){*

*Intent intent = new Intent(SplashActivity.this, MainActivity.class);*

*startActivity(intent);*

*finish();*

*}*

*);*

*Timer timer = new Timer();*

*timer.schedule(task, 3000);*

end

2. Navigating between activities

i. Changing from one activity to another:



*Intent intent = new Intent(MainActivity.this, ProfileActivity.class);*

*startActivity(intent);*

***putExtra(key, value)***is an overloaded method. That means, you can call this method in different ways:

***putExtra(key, int: value)***

***putExtra(key, int[]: value)***

***putExtra(key, float: value)***

***putExtra(key, double: value)***

***putExtra(key, char: value)***

***putExtra(key, String:value)***

.

.

The calling method on second activity should match the data type. If first activity is passing a double, the second activity should call

***getIntent().getDoubleExtra(key)***

to retrieve the data

ii. Passing data from the first activity to the second activity:

*Intent intent = new Intent(MainActivity.this, ProfileActivity.class);*

*Intent.putExtra(“email”, “andy3die@gmail.com”);*

*startActivity(intent);*

*String email = getIntent().getStringExtra(“email”);*

7. Android Local Storage:

i. Getting instance of SharedPreference:

ii. Editing the preference file

Index of: gradle dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Description | Current version | Dependencies | Github |
| Material Design | | | | |
| CardView | Create card-like view | 7.28.0.0 | implementation 'com.android.support:cardview-v7:28.0.0' |  |
| umano/AndroidSlidingUpPanel | Create sliding up panel that slide from bottom to top or vice versa | 3.4.0 | implementation 'com.sothree.slidinguppanel:library:3.4.0' | https://github.com/umano/AndroidSlidingUpPanel |
| florent37/ExpansionPanel | Accordion-like view that can expand and close | 1.2.4 | implementation 'com.github.florent37:expansionpanel:1.2.4' | https://github.com/florent37/ExpansionPanel |
|  | | | | |
| andreilisun/Circular-Layout | Arrange views in a circle | 1.0 | implementation 'com.github.andreilisun:circular-layout:1.0' | https://github.com/andreilisun/Circular-Layout |
|  | | | | |
| skydoves/TransFormationLayout | Animated page transition | 1.0.6 | implementation "com.github.skydoves:transformationlayout:1.0.6" | https://github.com/skydoves/transformationlayout |
| skydoves/AndroidRibbon | add ribbon to a view | 1.0.3 | implementation "com.github.skydoves:androidribbon:1.0.3" | https://github.com/skydoves/androidribbon |
| skydoves/ProgressView | animated progress view that looks like bar chart | 1.1.0 | implementation "com.github.skydoves:progressview:1.1.0" | https://github.com/skydoves/progressview |
| skydoves/AndroidVeil | pre-load animation that shows shimmering effect | 1.0.9 | implementation "com.github.skydoves:androidveil:1.0.9" | https://github.com/skydoves/AndroidVeil |
| skydobes/Submarine | dynamic floating navigation view/menu | 1.0.3 | implementation "com.github.skydoves:submarine:1.0.3" | https://github.com/skydoves/Submarine |
| skydoves/Balloon | animated popup like tooltip | 1.2.3 | implementation "com.github.skydoves:balloon:1.2.3" | https://github.com/skydoves/Balloon |
| Clans/FloatingActionButton | Fab with animations and sub-fab | 1.6.4 | implementation 'com.github.clans:fab:1.6.4 | https://github.com/Clans/FloatingActionButton |
|  | | | | |
|  |  |  |  |  |
|  | | | | |
| orhanobut/dialogplus | Dialog at top, middle or bottom | 1.11 | implementation 'com.orhanobut:dialogplus:1.11@aar' | https://github.com/orhanobut/dialogplus |
|  | | | | |
| Ramotion/folding-cell-android | Wallet-like folding animation | 1.2.3 | implementation  'com.ramotion.foldingcell:folding-cell:1.2.3' | https://github.com/Ramotion/folding-cell-android |
|  | | | | |
| Tapadoo/Alerter | Alert popup on top on screen push notification-like | 6.2.1 | implementation 'com.tapadoo.android:alerter:$current-version' | https://github.com/Tapadoo/Alerter |
|  | | | | |
| castorflex/SmoothProgressBar | smooth indeterminate progress bar | SmoothPreogressBar – 1.1.0  CircularProgressBar – 1.3.0 | // of course, do not write x.x.x but the version number  implementation 'com.github.castorflex.smoothprogressbar:library:x.x.x'  // or  implementation 'com.github.castorflex.smoothprogressbar:library-circular:x.x.x' | https://github.com/castorflex/SmoothProgressBar |
|  | | | | |
| GrenderG/Toasty | Custom toast message with color, icons, etc | 1.5.0 | implementation 'com.github.GrenderG:Toasty:1.5.0' | https://github.com/GrenderG/Toasty |
|  | | | | |
| ybq/Android-SpinKit | Loading animation for android | 1.4.0 | implementation 'com.github.ybq:Android-SpinKit:1.4.0' | https://github.com/ybq/Android-SpinKit |
|  | | | | |
| chthai64/SwipeRevealLayout | swipe/slide to show another layout. | 1.4.1 | compile 'com.chauthai.swipereveallayout:swipe-reveal-layout:1.4.1' | https://github.com/chthai64/SwipeRevealLayout |
|  | | | | |
| Lock Screen | | | | |
| Nightonke/BlurLockView | beautiful and animated pin number lock screen with blurred background | 1.0.0 | compile 'com.nightonke:blurlockview:1.0.0' | https://github.com/Nightonke/BlurLockView |
| aritraroy/PinLockView | pin lock custom view for android | 2.1.0 | implementation 'com.andrognito.pinlockview:pinlockview:2.1.0' | https://github.com/aritraroy/PinLockView |
|  | | | | |
| aritraroy/PatternLockView | implement pattern lock mechanism | 1.0.0 | implementation 'com.andrognito.patternlockview:patternlockview:1.0.0' | https://github.com/aritraroy/PatternLockView |
|  | | | | |
| QR code | | | | |
| yuriy-budiyev/code-scanner | easily customizable qr-code scanner based on zxing | 2.1.0 | implementation 'com.budiyev.android:code-scanner:2.1.0' | https://github.com/yuriy-budiyev/code-scanner |
| kenglxn/QRGen | QR code generation api for java | 2.6.0 | implementation 'com.github.kenglxn.QRGen:android:2.6.0' | https://github.com/kenglxn/QRGen |
| Diagrams | | | | |
| PhilJay/MPAndroidChart | Chart library for android | 3.1.0 | implementation 'com.github.PhilJay:MPAndroidChart:v3.1.0' | https://github.com/PhilJay/MPAndroidChart |
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