Mobile Application Development

Produced by

David Drohan (ddrohan@wit.ie)

Department of Computing & Mathematics
Waterford Institute of Technology
http://www.wit.ie

Waterford Institute *of* Technology
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Anko in Donation

Introducing Donation

A quick look at a new Android App and some Anko Examples

Agenda

- Background
- Extension Functions
- The Anko Library Components
  - Anko Commons
  - Anko Layouts
  - Anko SQLite
  - Anko Coroutines
- Anko in our Case Study (Donation)

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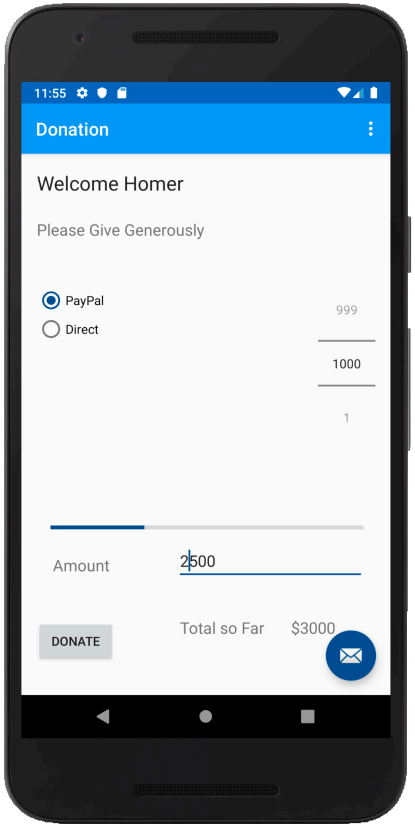
Donation

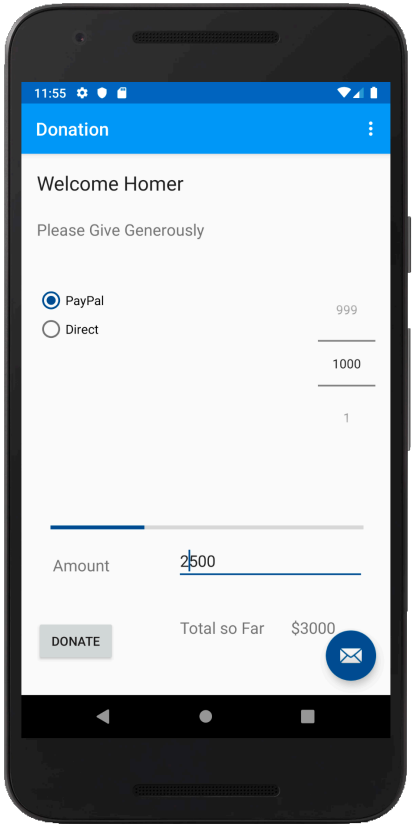
Let’s get Homer Elected!

Introduction – What is Donation?



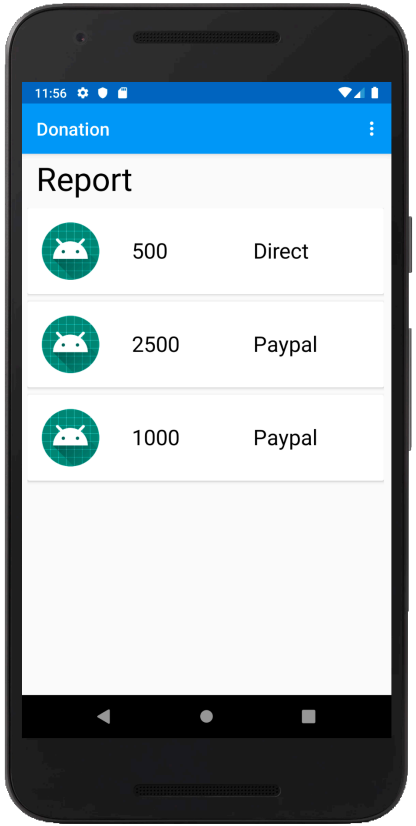
- An Android App to keep track of donations made to ‘Homers Presidential Campaign ’.
- App Features
  - Accept donation via number picker or typed amount
  - Keep a running total of donations
  - Display report on donation amounts and types
  - Display running total on progress bar

Donate Screen



- This is the main (launch) screen
- Single Activity
  - Welcome message
  - Multiple Widgets
    - NumberPicker
    - RadioButtons
    - Button
    - ProgressBar
    - EditText etc.

Report Screen

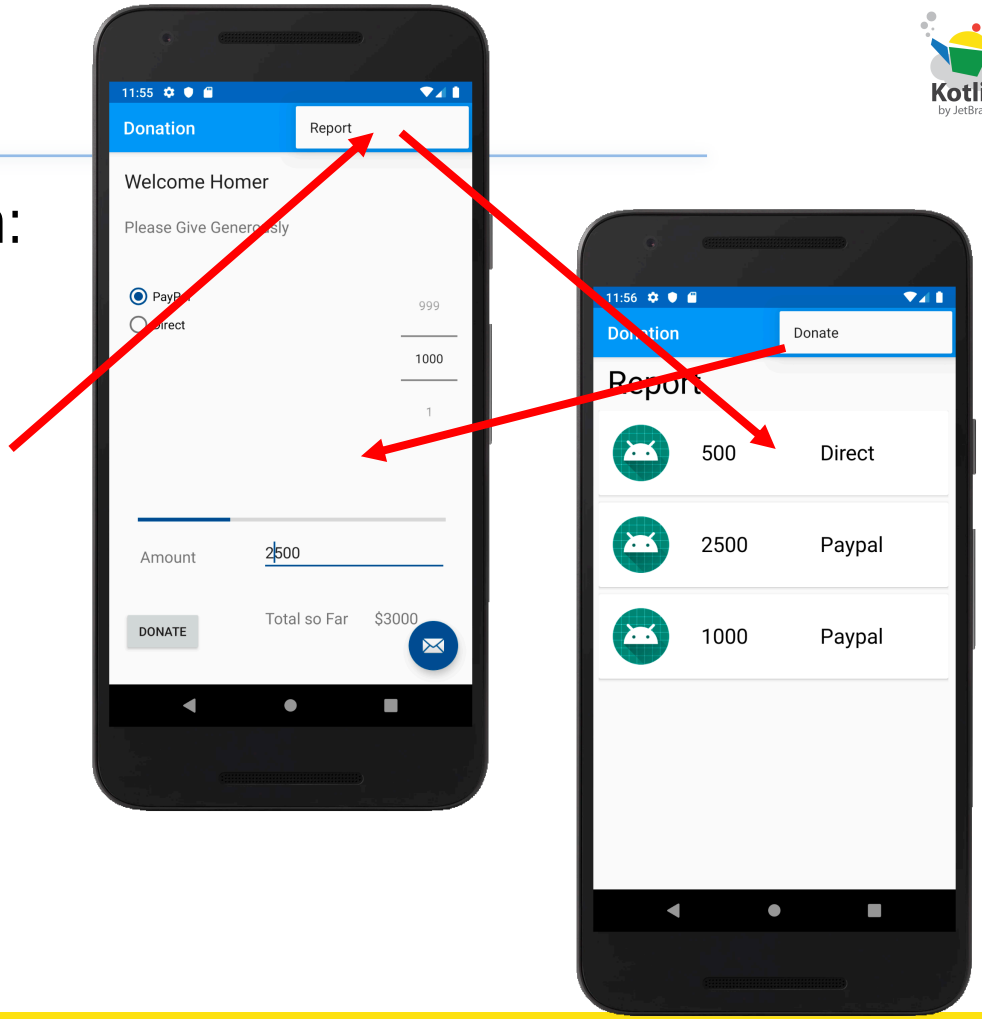


- Single Activity:

- 1 TextView
- 1 RecyclerView
  - amount donated
  - payment type
  - placeholder for photo

Action Bar / Menus

- App has an action bar with:
  - Menu options to navigate between activities.
  - Overflow option can display other Menu Options

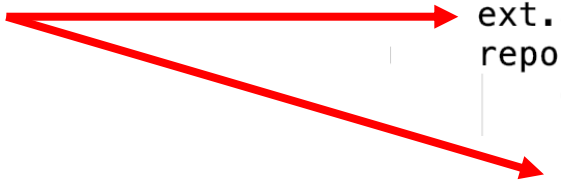


DonationAnko

intents, dialogs, logging;

Anko Dependencies

```
buildscript {
    ext.kotlin_version = '1.3.50'
    ext.anko_version='0.10.8'
    repositories {
        google()
        jcenter()
```



```
// Anko Commons
implementation "org.jetbrains.anko:anko-commons:$anko_version"
implementation "org.jetbrains.anko:anko-design:$anko_version"

// Anko Layouts
implementation "org.jetbrains.anko:anko-sdk25:$anko_version" // sdk15, sdk19,
implementation "org.jetbrains.anko:anko-appcompat-v7:$anko_version"

// Coroutine listeners for Anko Layouts
implementation "org.jetbrains.anko:anko-sdk25-coroutines:$anko_version"
implementation "org.jetbrains.anko:anko-appcompat-v7-coroutines:$anko_version"

// Anko SQLite
implementation "org.jetbrains.anko:anko-sqlite:$anko_version"
```

Anko Usage - Toast

- Before Anko

```
if(totalDonated >= progressBar.max)
    Toast.makeText(this,
        "Donate Amount Exceeded!",
        Toast.LENGTH_LONG).show()
```

- After

```
if(totalDonated >= progressBar.max)
    toast("Donation Amount Exceeded!")
```

Anko Usage - Snackbar

- Before Anko

```
fab.setOnClickListener { view ->
    Snackbar.make(view, "Replace with your own action",
        Snackbar.LENGTH_LONG)
        .setAction("Action", null).show()
}
```

- After

```
fab.setOnClickListener { view ->
    view.snackbar("Replace with your own action", "Action") { null }
}
```

Anko Usage - Intents

- Before Anko

```
R.id.action_report -> {
    startActivity(Intent(this, Report::class.java))
    true
}
```

- After

```
R.id.action_report -> {
    startActivity<Report>()
    true
}
```

Anko Usage – Alerts (Before)

```
fun alertDemo()
{
    val builder = AlertDialog.Builder(this)
    builder.setTitle("Androidly Alert")
    builder.setMessage("This is a message")

    builder.setPositiveButton(android.R.string.yes) { dialog, which ->
        Toast.makeText(applicationContext,
            android.R.string.yes, Toast.LENGTH_SHORT).show()
    }

    builder.setNegativeButton(android.R.string.no) { dialog, which ->
        Toast.makeText(applicationContext,
            android.R.string.no, Toast.LENGTH_SHORT).show()
    }

    builder.setNeutralButton("Maybe") { dialog, which ->
        Toast.makeText(applicationContext,
            "Maybe", Toast.LENGTH_SHORT).show()
    }
    builder.show()

}
```

Anko Usage – Alerts (After)

```
fun alertAnkoDemo()
{
    alert("This is a message", "Androidly Alert") {
        yesButton { toast(android.R.string.yes) }
        noButton {toast(android.R.string.no)}
        neutralPressed("Maybe") {toast("Maybe")}
    }.show()
}
```

References

Sources: https://github.com/Kotlin/anko
https://adorahack.com/introduction-to-anko

Thanks.