01-Lifecycle-aware-Components

Doc Kotlin

Part : Preparation

1 - Create new project

- Name : LifecycleAwareDemo
- PackageName : iutinfo.lp.devmob.lifecycleawaredemo
- Kotlin
- EmptyActivity

2 - Add dependencies to the project

Dans le fichier `./app/src/build.gradle`, ajouter :

```
    def lifecycle_version = "1.1.1"
    implementation "android.arch.lifecycle:extensions:$lifecycle_version"
    annotationProcessor "android.arch.lifecycle:compiler:$lifecycle_version"
```

Ajouter dans la classe MainActivity :

```
class MainActivity : AppCompatActivity () {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activty_main)
        lifecycle.addObserver(MainActivityObserver())
    }
}
```

Créer une classe MainActivityObserver :

```
class MainActivityObserver {
    @OnLifecycleEvent(Lifecycle.Event.ON_CREATE)
    fun onCreateEvent() {
        Log.i(TAG, "Observer on create")
    }

    companion object {
        private val TAG: String =
```

```
MainActivityObserver::class.java.simpleName
    }
}
```

Ajouter dans le gradle.properties :

```
android.enableJetifier=true
```

Lancer l'application et ouvrir l'onglet LogCat
Filtrer avec `level:info tag:Main`

Ajouter des fonctions overrides dans la MainActivity afin de mieux visualiser le lifecycle :

```
    override fun onStart() {
        super.onStart()
        Log.i(TAG, "Owner onStart")
    }

    override fun onPause() {
        super.onPause()
        Log.i(TAG, "Owner onPause")
    }

    override fun onResume() {
        super.onResume()
        Log.i(TAG, "Owner onResume")
    }

    override fun onStop() {
        super.onStop()
        Log.i(TAG, "Owner onStop")
    }

    override fun onDestroy() {
        super.onDestroy()
        Log.i(TAG, "Owner onDestroy")
    }
```

Faire la même chose pour le MainActivityObserver :

```
@OnLifecycleEvent(Lifecycle.Event.ON_START)
    fun onStartEvent() {
        Log.i(TAG, "Observer on start")
    }
```

```
    @OnLifecycleEvent(Lifecycle.Event.ON_RESUME)
    fun onResumeEvent() {
        Log.i(TAG, "Observer on resume")
    }
    @OnLifecycleEvent(Lifecycle.Event.ON_PAUSE)
    fun onPauseEvent() {
        Log.i(TAG, "Observer on pause")
    }
    @OnLifecycleEvent(Lifecycle.Event.ON_STOP)
    fun onStopEvent() {
        Log.i(TAG, "Observer on stop")
    }
    @OnLifecycleEvent(Lifecycle.Event.ON_DESTROY)
    fun onDestroyEvent() {
        Log.i(TAG, "Observer on destroy")
    }
```

Relancer l'application et l'on peut voir le déroulé dans le logCat

```
--------------------------- PROCESS STARTED (17875) for package
iutinfo.lp.devmob.lifecycleawaredemo ----------------------------
2022-10-18 09:46:45.370 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onCreate
2022-10-18 09:46:45.376 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on create
2022-10-18 09:46:45.376 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onStart
2022-10-18 09:46:45.377 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on start
2022-10-18 09:46:45.377 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onResume
2022-10-18 09:46:45.378 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on resume
2022-10-18 09:46:49.776 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on pause
2022-10-18 09:46:49.776 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onPause
2022-10-18 09:46:49.777 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on stop
2022-10-18 09:46:49.778 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onStop
2022-10-18 09:46:57.834 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Observer on destroy
2022-10-18 09:46:57.834 17875-17875 MainActivityObserver
iut....lp.devmob.lifecycleawaredemo  I  Owner onDestroy
```

```
------------------------------ PROCESS ENDED (17875) for package
iutinfo.lp.devmob.lifecycleawaredemo ------------------------------
```