
Pruebas Automáticas

— Tercer informe de incidentes —
Juan Gaviria - Mauricio Montaña

Objetivos

Se desea probar en las 3 aplicaciones lo siguiente:

- Probar la interfaz gráfica
- Detectar posibles problemas de javascript ejecución de eventos
- Probar la aplicación en diferentes navegadores
- Realizar análisis de logs de errores

Estrategia

- Se crean 2 escenarios para cada aplicación
- Se ejecutan pruebas con lighthouse
- Se realiza pruebas E2E con cypress.io
- En la aplicaciones mobiles se ejecutan pruebas con espresso y monkey java.

Presupuesto

- 18 horas por persona
- Un computador portátil lenovo Intel i5, 8 Gb de Ram
- Un computador portátil lenovo Intel i5, 12 Gb de Ram
- (real) Samsung Galaxy S5, nivel de API 19, Android 4.4.2 Kit Kat
- (real) Samsung Galaxy J1, nivel de API 22, Android 5.1 Lolli Pop
- (virtual local) Nexus_5X_API_24, Android 7.0 Nougat

Contexto de las aplicaciones

Aplicación WEB **Emma Labs**

- Plataforma de gestión de insumos y procedimientos para laboratorios científicos
- Desarrollada en Python + Django, base de datos PostgreSQL
- Ambiente productivo en Heroku

Aplicación móvil **Caléndula**

- Gestión de medicamentos y hábitos saludables
- Desarrollada en android nativo
- Versión mínima Android 2.3 Gingerbread

Aplicación móvil **Silectric**

- Calculadora de consumo eléctrico para el hogar
- Desarrollada en android nativo
- Versión mínima Android 2.3 Gingerbread

Tipos y niveles de pruebas

Aplicación WEB **Emma Labs**

- Pruebas de Aceptación
- Pruebas de caja negra, random testing

Aplicación móvil **Caléndula**

- Pruebas de Aceptación
- Pruebas de caja negra

Aplicación móvil **Silectric**

- Pruebas de Aceptación
- Pruebas de caja negra

- Lighthouse

- Espresso
- Monkey java

- Espresso
- Monkey java

Aplicación web - Emma Labs

Rol

Asistente

Navegadores

Microsoft Edge

Internet Explorer 10

Internet Explorer 9

Chrome

61.0.3163.100

Firefox 56.0.2

Casos de Uso

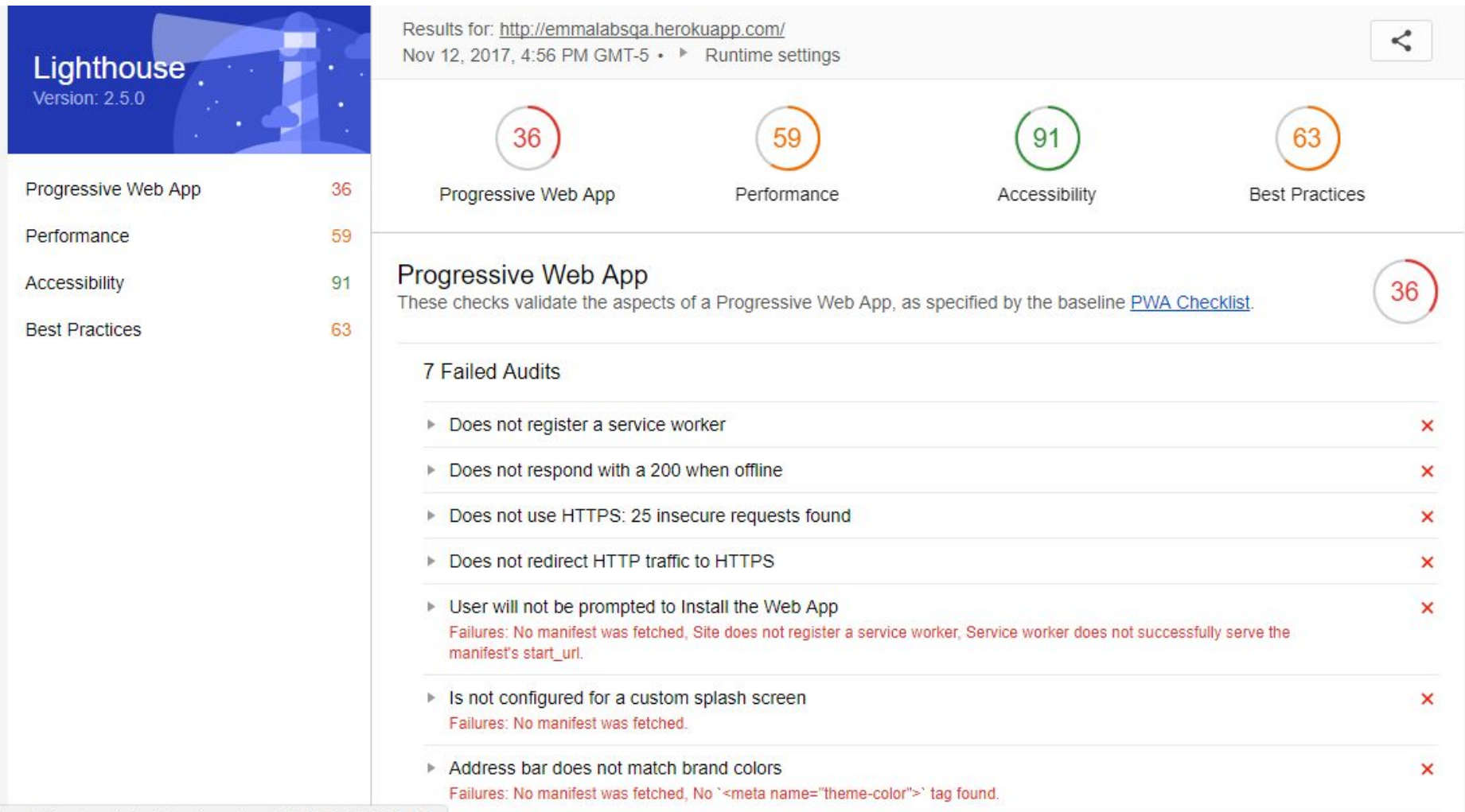
Gestionar Solicitud

Ver Experimento

Listar ordenes

Ver Proyectos

Aplicación web - Emma Labs



EMMA

128 x 128

rol_asistente

▼ Protocolos

► Buscar Protocolo

▼ Experimentos

▼ Solicitudes

▼ Ordenes

▼ Proyectos

Bienvenido al Laboratorio Químico

Dashboard

Asignado a

1

Proyectos

Pendientes de revisión

40

Órdenes de compra

En curso

2

Experimentos

Disponibles

0

Máquinas solicitadas

613

5

Elements

Console

Sources

top

Filter

Default levels

2 items hidden by filter:

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

mogwai fps chrome-extension://e.../gremlins.min.js:22 59.95922772530427

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

► Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)

at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)

at HTMLDivElement.dispatch (jquery.min.js:3)

at HTMLDivElement.r.handle (jquery.min.js:3)

top Filter Default levels 2 items hidden by filter:

- at HTMLDivElement.dispatch (jquery.min.js:3)
- at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)

mogwai fps chrome-extension://ew/gremlins.min.js:22
59.9592272530427

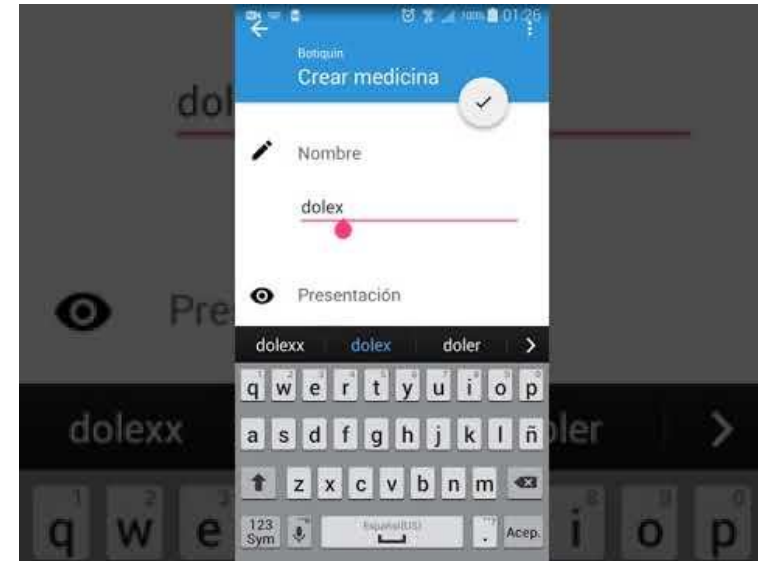
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)
- Uncaught TypeError: Cannot read property 'length' of undefined (jquery.slimscroll.js:282)
 - at HTMLDivElement.<anonymous> (jquery.slimscroll.js:282)
 - at HTMLDivElement.dispatch (jquery.min.js:3)
 - at HTMLDivElement.r.handle (jquery.min.js:3)

Aplicación móvil - Caléndula - Espresso

```
androidTestCompile 'com.android.support.test:testing-support-lib:0.1'  
androidTestCompile 'com.android.support.test.espresso:espresso-core:2.0'  
testCompile 'junit:junit:4.12'  
testCompile "org.mockito:mockito-core:1.9.5"
```

Aplicación móvil - Caléndula - Espresso

```
@Test
public void agregarEliminarMedicina() {
    pressBack();
    ViewInteraction appCompatTextView = onView(
        allOf(withId(className(is("android.support.v7.widget.AppCompatTextView")), isDisplayed())));
    appCompatTextView.perform(click());
    ViewInteraction viewPager = onView(
        allOf(withId(R.id.container), withParent(withId(R.id.main_content)), isDisplayed()));
    viewPager.perform(swipeLeft());
    ViewInteraction floatingActionButton = onView(
        allOf(withId(R.id.add_button), isDisplayed()));
    floatingActionButton.perform(click());
    ViewInteraction appCompatButton = onView(
        allOf(withId(android.R.id.button2), withText("Cancel")));
    appCompatButton.perform(scrollTo(), click());
    ViewInteraction appCompatAutoCompleteTextView = onView(
        allOf(withId(R.id.medicine_edit_name), isDisplayed()));
    appCompatAutoCompleteTextView.perform(replaceText("dolex"), closeSoftKeyboard());
    ViewInteraction appCompatImageView = onView(
        withId(R.id.med_presentation_2));
    appCompatImageView.perform(scrollTo(), click());
    ViewInteraction floatingActionButton2 = onView(
        allOf(withId(R.id.add_button), isDisplayed()));
    floatingActionButton2.perform(click());
    ViewInteraction relativeLayout = onView(
        allOf(withId(R.id.medicines_list_item_container),
            withParent(childAtPosition(withId(R.id.medicines_list), 0)), isDisplayed()));
    relativeLayout.perform(click());
    ViewInteraction appCompatAutoCompleteTextView2 = onView(
        allOf(withId(R.id.medicine_edit_name), withText("dolex"), isDisplayed()));
    appCompatAutoCompleteTextView2.perform(replaceText("ddolex"), closeSoftKeyboard());
    openActionBarOverflowOrOptionsMenu(getInstrumentation().getTargetContext());
    ViewInteraction appCompatTextView2 = onView(
        allOf(withId(R.id.title), withText("Remove"), isDisplayed()));
    appCompatTextView2.perform(click());
    ViewInteraction appCompatButton2 = onView(
        allOf(withId(android.R.id.button2), withText("Si")));
    appCompatButton2.perform(scrollTo(), click());
}
```

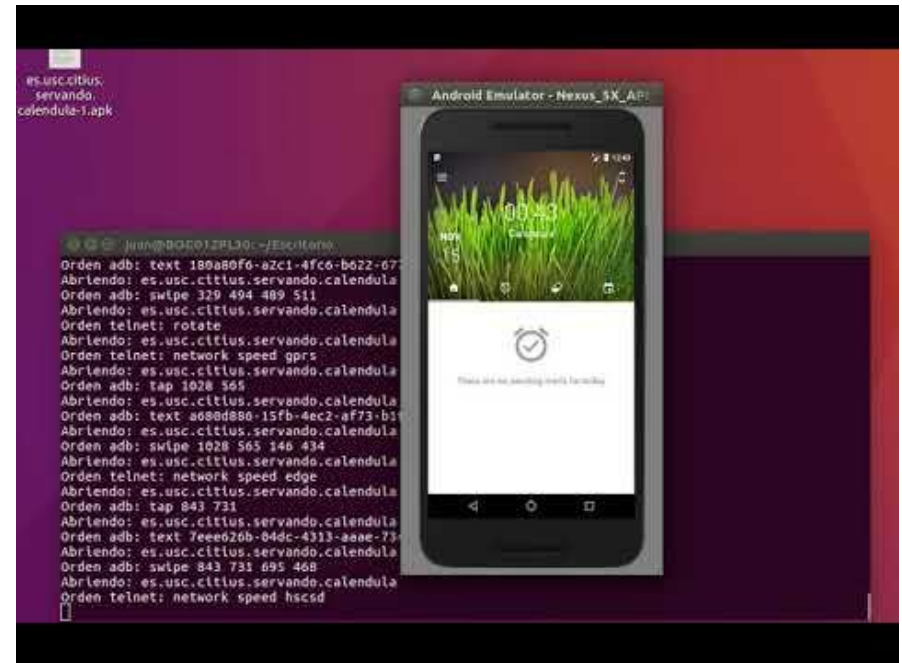


Aplicación móvil - Caléndula - Espresso

```
E/AndroidRuntime(31087): FATAL EXCEPTION: main
E/AndroidRuntime(31087): Process: es.usc.citius.servando.calendula, PID: 31087
E/AndroidRuntime(31087): java.lang.IndexOutOfBoundsException: Invalid index 0, size is 0
    at java.util.ArrayList.throwIndexOutOfBoundsException(ArrayList.java:255)
    at java.util.ArrayList.get(ArrayList.java:308)
    at es.usc.citius.servando.calendula.fragments.MedicinesListFragment$MedicinesListAdapter.getView(MedicinesListFr.
    at android.widget.AbsListView.obtainView(AbsListView.java:2760)
    at android.widget.ListView.measureHeightOfChildren(ListView.java:1274)
    at android.widget.ListView.onMeasure(ListView.java:1186)
    at android.view.View.measure(View.java:17515)
    at android.widget.RelativeLayout.measureChildHorizontal(RelativeLayout.java:719)
    at android.widget.RelativeLayout.onMeasure(RelativeLayout.java:455)
    at android.view.View.measure(View.java:17515)
    at android.support.v4.view.ViewPager.onMeasure(ViewPager.java:1630)
    at android.view.View.measure(View.java:17515)
    at android.view.ViewGroup.measureChildWithMargins(ViewGroup.java:5380)
    at android.support.design.widget.CoordinatorLayout.onMeasureChild(CoordinatorLayout.java:700)
    at android.support.design.widget.HeaderScrollingViewBehavior.onMeasureChild(HeaderScrollingViewBehavior.java:90)
    at android.support.design.widget.AppBarLayout$ScrollingViewBehavior.onMeasureChild(AppBarLayout.java:1364)
    at android.support.design.widget.CoordinatorLayout.onMeasure(CoordinatorLayout.java:765)
    at android.view.View.measure(View.java:17515)
```


Aplicación móvil - Caléndula - Monkey JAVA

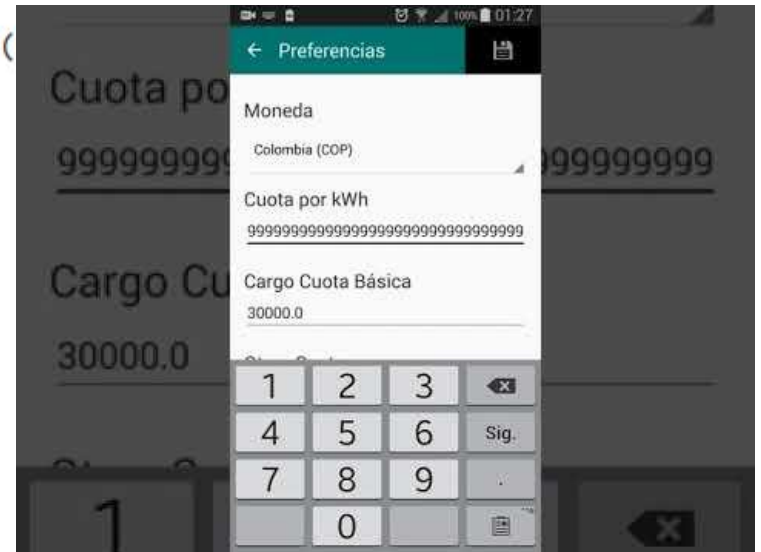
```
java -jar
monkey_adb_juan_gaviria.jar
adb_root=/home/juan/Android/S
dk/platform-tools/
telnet_token=ZhOfLHqRnR2sPche
emulator_port=5554 n=10000
tap=0.96 text=0.8 swipe=0.92
keyevent=0.1 rotate=0.3
network_speed=0.9
accelerometer=0.1
apk=/home/juan/es.usc.citius.
servando.calendula-1.apk
paquete=es.usc.citius.servand
o.calendula
```



Aplicación móvil - Siletric - Espresso

```
dependencies {  
    compile fileTree(include: ['*.jar'], dir: 'libs')  
    testCompile 'junit:junit:4.12'  
    compile 'com.android.support:appcompat-v7:25.4.0'  
    compile 'com.android.support:design:25.4.0'  
    compile 'com.android.support:support-v4:25.4.0'  
    compile 'com.android.support:support-annotations:22.2.0'  
    androidTestCompile 'com.android.support.test:runner:1.0.1'  
    androidTestCompile 'com.android.support.test.espresso:espresso-core:3.0.1'  
}
```

Aplicación móvil - Silectric - Espresso

[illegible]

Aplicación móvil - Silectric - Espresso

```
E/AndroidRuntime(30005): FATAL EXCEPTION: main
E/AndroidRuntime(30005): Process: net.alainindonesia.silectric, PID: 30005
E/AndroidRuntime(30005): java.lang.NumberFormatException: Invalid float: "Infinity5"
E/AndroidRuntime(30005):     at java.lang.StringToReal.invalidReal(StringToReal.java:63)
E/AndroidRuntime(30005):     at java.lang.StringToReal.parseFloat(StringToReal.java:310)
E/AndroidRuntime(30005):     at java.lang.Float.parseFloat(Float.java:300)
E/AndroidRuntime(30005):     at java.lang.Float.valueOf(Float.java:337)
E/AndroidRuntime(30005):     at net.alainindonesia.silectric.s.onClick(Unknown Source)
E/AndroidRuntime(30005):     at android.view.View.performClick(View.java:4658)
E/AndroidRuntime(30005):     at android.view.View$PerformClick.run(View.java:19461)
E/AndroidRuntime(30005):     at android.os.Handler.handleCallback(Handler.java:733)
E/AndroidRuntime(30005):     at android.os.Handler.dispatchMessage(Handler.java:95)
E/AndroidRuntime(30005):     at android.os.Looper.loop(Looper.java:146)
E/AndroidRuntime(30005):     at android.app.ActivityThread.main(ActivityThread.java:5694)
E/AndroidRuntime(30005):     at java.lang.reflect.Method.invokeNative(Native Method)
E/AndroidRuntime(30005):     at java.lang.reflect.Method.invoke(Method.java:515)
E/AndroidRuntime(30005):     at com.android.internal.os.ZygoteInit$MethodAndArgsCaller.run(ZygoteInit.java:1291)
E/AndroidRuntime(30005):     at com.android.internal.os.ZygoteInit.main(ZygoteInit.java:1107)
E/AndroidRuntime(30005):     at dalvik.system.NativeStart.main(Native Method)
V/ActivityManager( 2424): Force finishing activity net.alainindonesia.silectric/.OptionsActivity
I/SQLiteSecureOpenHelper( 2428): getWritableDatabase(pwd)
I/SQLiteSecureOpenHelper( 2428): getDatabaseLocked(b,b,pwd)...
I/EOLTEST ( 2424): EOL_TEST_MODE IS 0 - SLEEP 500 MSEC
I/dumpstate(31269): begin
```


Aplicación móvil - Silectric - Monkey JAVA

```
java -jar  
monkey_adb_juan_gaviria.jar  
adb_root=/home/juan/Android/S  
dk/platform-tools/  
telnet_token=ZhOfLHqRnR2sPche  
emulator_port=5554 n=10000  
tap=0.96 text=0.8 swipe=0.92  
keyevent=0.1 rotate=0.3  
network_speed=0.9  
accelerometer=0.1  
apk=/home/juan/Escritorio/sil  
ectric.apk  
paquete=net.alaindonesia.sile  
ctric
```

