

Pruebas Automáticas

Sprint 3



HOLA!

Nosotros somos Juan Hernández y Felipe Martínez ...
Reporte de pruebas para el Sprint 2



AGENDA

- Generalidades Sprint 3
- Aplicaciones
- Reporte de pruebas
 - ▷ BDT
 - ▷ Record and Replay
 - ▷ Mutation Testing

1

Generalidades Sprint 2



Objetivo

- Aumentar la cobertura de pruebas usando Behavior Driven Testing con múltiples exploradores.
- Aumentar la cobertura de pruebas haciendo uso de la herramienta *Expresso Recorder*.
- Explorar los frameworks existentes para la aplicación de pruebas de mutación sobre las aplicaciones seleccionadas en el sprint
- Aplicar el framework MDroid+ a las aplicaciones android Habitica y GNU Cash



Presupuesto

- Tiempo Hombre: 26 horas (13 horas 2 Testers)
- Tiempo máquinas físicas: 10 horas
- Tiempo servicios Cloud:
 - 100 minutos (BrowserStack)
- Equipos de cómputo
 - 2 Laptops
 - 1 Celular Samsung J5



Tipos y Niveles de Pruebas

Sistema

- Ejecución de pruebas automáticas de tipo Behavior Driven Testing sobre múltiples exploradores.
- Ejecución de pruebas con el enfoque Record and Replay.
- Mutación del código fuente de las aplicaciones para verificar el comportamiento de las suites de pruebas de las aplicaciones compiladas con el código fuente mutado.

2

Aplicaciones



habitica

Gamifica tu rutina



GNU Cash

Control de gastos financieros



3

Reporte de pruebas

¿Cuáles fueron los resultados obtenidos?



Habitica Web - BDT

- Escenarios usando Gherkins
 - ▷ Autenticación
 - ▷ Creacion de Habitos
- Ejecución usando Cucumber
 - ▷ Narrativa en Español (# language: es)

Esquema del escenario: ...

Dado ...

Cuando ...

Entonces ...

- Fallos en exploradores

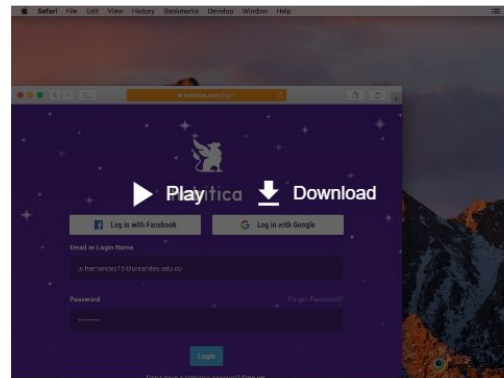
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[DELETE SESSION](#)

Session ID: a289b860e7fe74ffc8f84c3d7e0f56b7734b56aa

Started 03:00 UTC 15 Nov 2017
Duration 1 min 6 secs
Status ▲ **Failed** (Marked via REST API)
Platform OS X Sierra
Browser Safari 10.1
Local testing False
User name Juan Hernández (juanhernandez2)
Capabilities [Input Capabilities](#) [Browser Capabilities](#)

Having trouble with this session? [Report Issue](#)





GNU Cash - Mutation Testing

```
java -jar target/MDroidPlus-1.0.0.jar libs4ast/ ../gnucash-android/app/src/main/  
gnu-cash ../MDroidPlus/mutants/
```

gnu-cash-mutant190 gnu-cash-mutant217 gnu-cash-mutant244 gnu-cash-mutant271 gnu-cash-mutant298 gnu-cash-mutant325 gnu-cash-mutant352 gnu-cash-mutant379
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GNU Cash - Mutation Testing

app

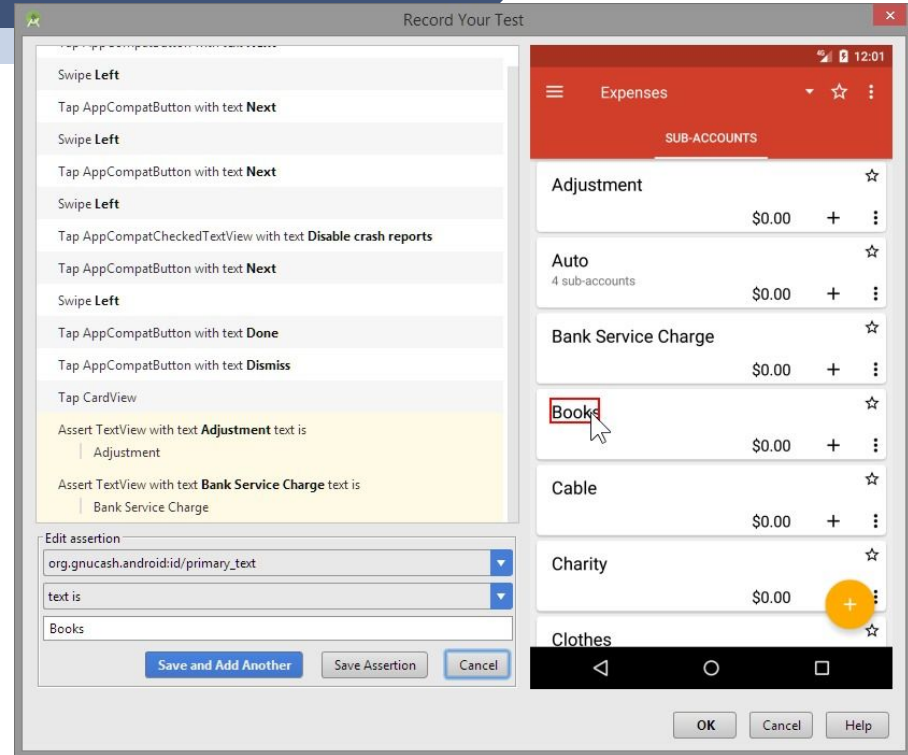
Element	Missed Instructions	Cov.	Missed Branches	Cov.
org.gnucash.android.db.adapter	<div><div></div></div>	0%	<div><div></div></div>	0%
org.gnucash.android.ui.transaction	<div><div></div></div>	0%	<div><div></div></div>	1%
org.gnucash.android.model	<div><div></div><div></div></div>	24%	<div><div></div><div></div></div>	21%
org.gnucash.android.ui.account	<div><div></div></div>	0%	<div><div></div></div>	0%
org.gnucash.android.importer	<div><div></div></div>	0%	<div><div></div></div>	0%
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org.gnucash.android.ui.settings	<div><div></div></div>	0%	<div><div></div></div>	0%
org.gnucash.android.ui.report	<div><div></div></div>	0%	<div><div></div></div>	0%
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org.gnucash.android.ui.export	<div><div></div></div>	0%	<div><div></div></div>	0%
org.gnucash.android.ui.report.linechart	<div><div></div></div>	0%	<div><div></div></div>	0%





GNU Cash - Record and Replay

- Marcar cuenta como favorita.
- Crear cuenta.
- Crear sub cuenta.
- Crear Transacción.
- Creación de cuentas por defecto.





Puntos a resaltar

- MDroid+ Wrapper hace uso de comandos `bin/sh` en su implementación, esto evita que se pueda ejecutar haciendo uso de máquinas con SOs que no están basados en Unix.
- MDroid+ podría hacer uso de una serie de tareas de gradle o un plugin para ejecutar los suite de pruebas automáticamente.
- Pitest está diseñado para proyectos de Java puros.



GRACIAS!

Preguntas adicionales?

Puedes contactarnos a nuestros correos electrónicos
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