

ROBOT FRAMEWORK

An Introduction



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Agenda

- What was the problem
- Why we chose RF
- How it solved our problems
- Other things RF does



The Problem



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Why I chose RF

- Intuitive and user friendly
- Easy to install and maintain
- Continuous Integration and deployment support
- Multiple platform testing capability
- Business friendly and cost effective
- Good user base and support



How RF solved my problem

- Quick install
- Easy to write and run tests
- Helpful community



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Installation:

- Install Python
- Install RF

```
pip install robotframework
```

- Install libraries e.g.

```
pip install robotframework-seleniumlibrary
```

- Install web drivers for Chrome,IE,Gecko



File structure

- File has `.robot` extension
- Code in each file separated into 4 tables:
 - Settings
 - Variables
 - Keywords
 - Test Cases (only for Test files)



Running tests

- `robot <folder>/<filename>.robot`
- Run-time arguments
 - `-d <folder_for_results>`
 - `-i <include_tags> -e <exclude_tags>`
 - `-V <VARIABLE>:<override_default_value>`
 - `--dryrun`
- For more, see
<http://robotframework.org/robotframework/latest/RobotFrameworkUserGuide.html#test-data-documentation-tool-testdoc>



ROBOT FRAMEWORK

for Web



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Robot framework for Web

- Handy libraries

(<http://robotframework.org/#libraries>)

- SeleniumLibrary
- BuiltIn
- Many more examples, or make your own



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Cross browser testing

- Send to `crossbrowsertesting.com`
- <https://github.com/rakheepatel/robotframework-crossbrowsertesting>



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Parallel Execution

- Using Pabot
- <https://github.com/mkorpela/pabot>



```
ra@Rakhees-MacBook-Pro ~/robotscripts/rf-mst master robot -d Results Tests/*.robot
=====
Selenium & Selenium1
=====
Selenium & Selenium1.Selenium :: These tests show how a simple RF test works
=====
Sample Test | PASS |
-----
Test Alerts | PASS |
-----
Test Form | PASS |
-----
Selenium & Selenium1.Selenium :: These tests show how a simple RF ... | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
Selenium & Selenium1.Selenium1 :: These file is a duplicate to demonstrate ...
=====
Sample Test | PASS |
-----
Test Alerts | PASS |
-----
Test Form | PASS |
-----
Selenium & Selenium1.Selenium1 :: These file is a duplicate to dem... | PASS |
3 critical tests, 3 passed, 0 failed
3 tests total, 3 passed, 0 failed
=====
Selenium & Selenium1 | PASS |
6 critical tests, 6 passed, 0 failed
6 tests total, 6 passed, 0 failed
=====
Output: /Users/ra/robotscripts/rf-mst/Results/output.xml
Log: /Users/ra/robotscripts/rf-mst/Results/log.html
Report: /Users/ra/robotscripts/rf-mst/Results/report.html
```



```
ra@Rakhees-MacBook-Pro ~/robotscripts/rf-mst master pabot -d Results Tests/*.robot
2018-08-10 16:54:41.093790 [PID:10912] [1] EXECUTING Suites.Selenium
2018-08-10 16:54:41.095060 [PID:10913] [0] EXECUTING Suites.Selenium1
2018-08-10 16:54:54.605358 [PID:10913] [0] PASSED Suites.Selenium1 in 13.2 seconds
2018-08-10 16:54:54.606373 [PID:10912] [1] PASSED Suites.Selenium in 13.2 seconds
Output: /Users/ra/robotscripts/rf-mst/Results/output.xml
Log: /Users/ra/robotscripts/rf-mst/Results/log.html
Report: /Users/ra/robotscripts/rf-mst/Results/report.html
Elapsed time: 0 minutes 13.842 seconds
```



DEMO

Robot vs Pabot



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ROBOT FRAMEWORK

for APIs



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Problem

- Use a specific programming language
- Needed an extensive regression test suite fast



Why RF was chosen

- Quick setup of test framework
- Ready to go libraries for REST and SOAP
- Excellent reports to stakeholders
- Language-agnostic, natural language syntax for API tests



How RF solved my problem

- Quick feedback to Dev teams on the quality of releases
- Enabling the team to improve quality



Robot framework for API Testing

- Handy libraries

(<http://robotframework.org/#libraries>)

- RESTinstance
and RequestsLibrary – for REST APIs
- Suds Library – for SOAP APIs



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DEMO

API



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ROBOT FRAMEWORK

for Mobile



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Robot framework for Mobile Testing

- Handy libraries

(<http://robotframework.org/#libraries>)

- iOS Library
- Android Library
- Appium Library



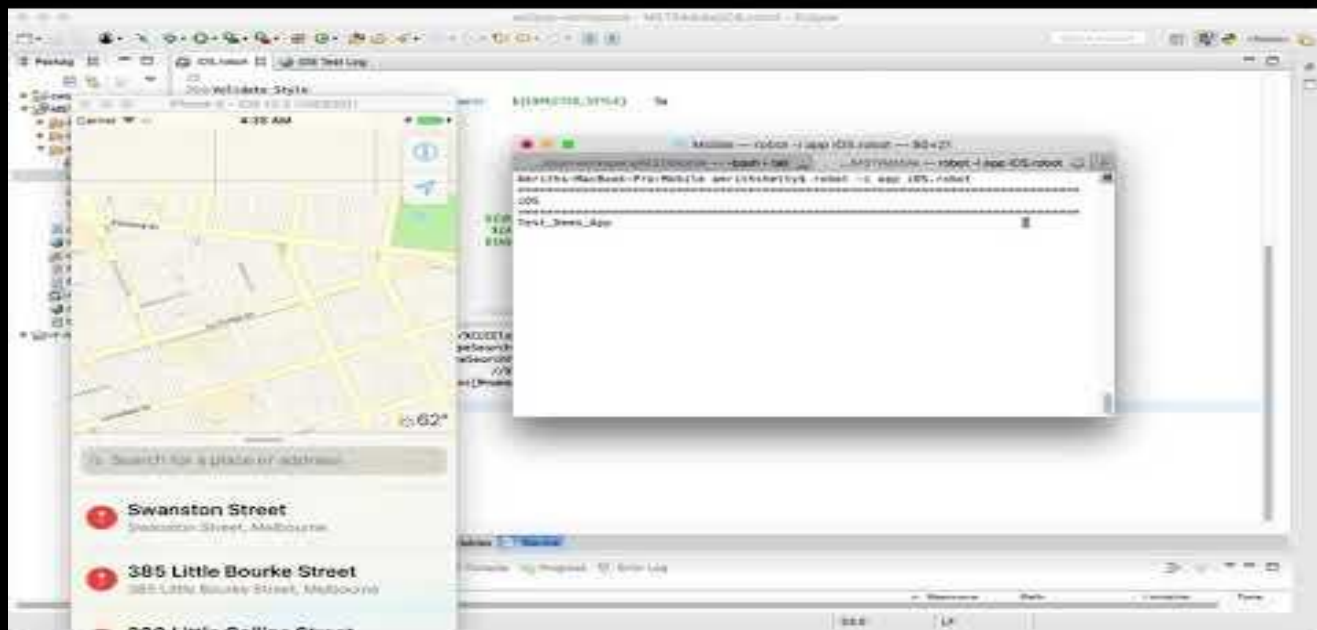
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DEMO

Mobile



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Other Robot Framework capabilities

- Database tests – SQL/noSQL
- Visual regression testing e.g. AppliTools/Sikuli
- Protocol testing – SSH/Telnet/FTP/MQTT
- Others like SAPGUI /JAVA and build tools
- Go to <http://robotframework.org/#libraries> for more!



Resources :

- <http://robotframework.org>
- <https://github.com/robotframework>
- <https://robotframework.slack.com>
- <https://github.com/rakheepatel/rf-mst>



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Takeaways

- Use it/have a play
- Test on different platforms



QUESTIONS?



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