

# Menu Tingz


## Testing Report

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# Software Testing

Software testing is a crucial aspect of the software development life cycle. It is said that no software is error free. Software testing reveals any vulnerabilities in an application's source code. Hackers make some of the best software testers.



otto@ottor-HP-Notebook:~/Apps/Mobile-Application-Tech-Year-3-Semester-2/SWEN3004/SERVER\$

I

# Tools Used

1. Calabash Testing Framework
2. JavaScript

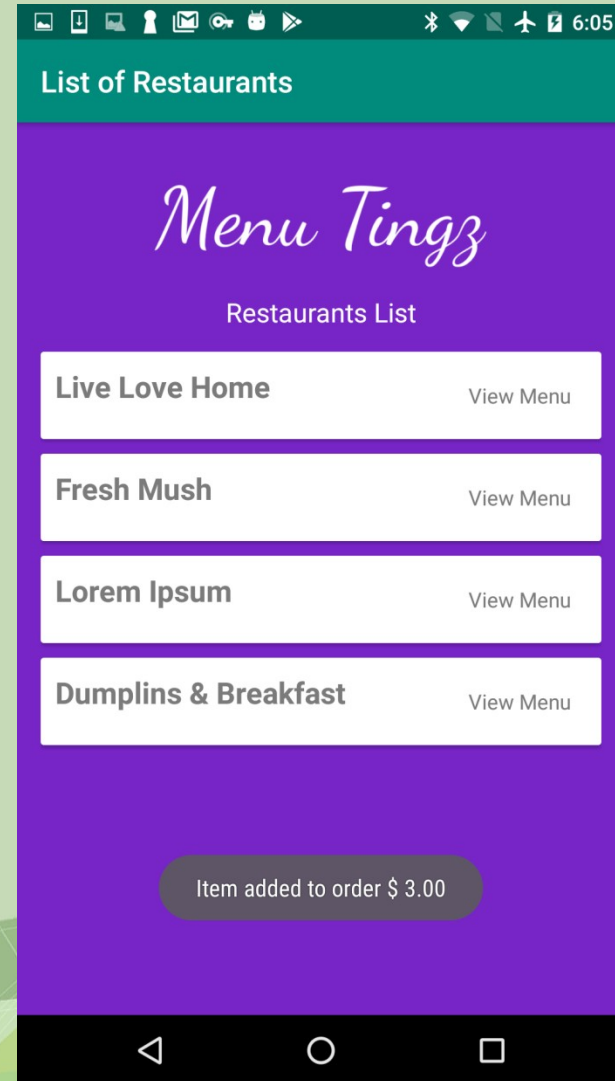
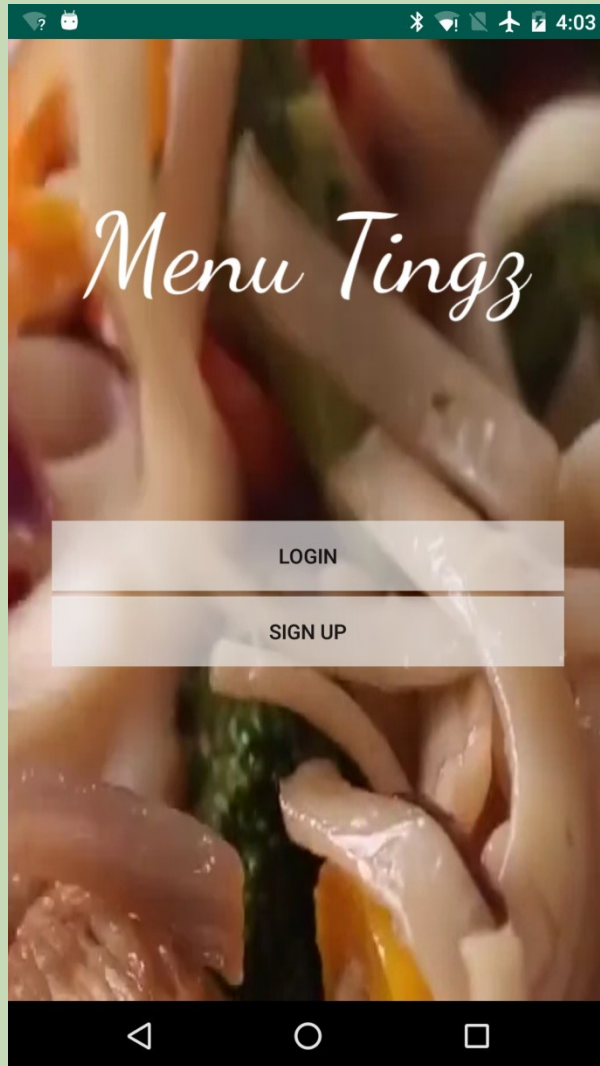


# What is Menu Tingz

Menu Tingz is an android application which allows users view and order dishes from various restaurants listed within the application.



# User Interface



# User Interface (Contd.)

Upon signing in the total number of event flows is very small. Possible flows consist of selecting from available options. This results in a very low chance of an error occurring therefore automated testing is not strictly necessary in this regard. On the other hand, the login and sign up forms may be vulnerable to malformed inputs and as such automation is necessary.




# Vulnerability Testing

The testing method used is vulnerability testing, where many possible text combinations will be tested in the input fields. The order of growth of this operation is exponentially large and will take a long a long time as the domain input variables, ( text length and possible characters) grows. As such multiple threads with headless emulators are recommended to reduce runtime.



# Vulnerability Testing (Contd.)

This test consisted of a feature file in combination with a JavaScript program. The feature file acted as a template and the JavaScript program made changes to this file to carry out each test case. Once changes were made to the file it was executed using a subprocess.



# Sample Output

```
When I see "My Orders" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
Then I touch the "REMOVE" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
  # NOW TESTING ORDER PLACEMENT
When I see "MAKE ORDER" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
Then I touch the "MAKE ORDER" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
When I see "Are you sure you want to place this order" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
Then I touch the "YES" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
```

```
Scenario: checking out with an empty cart # features/my_first.feature:97
  # It is observed that no error is thrown when checking out with an empty cart
  When I see "Live Love Home" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
  Then I touch the "Live Love Home" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
  Then I should see "Live Love Home" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:9
  When I see "Pasta with Chicken" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
  Then I touch the "Pasta with Chicken" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
  When I see "My Orders" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
  Then I touch the "REMOVE" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
  Then I touch the "MAKE ORDER" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
  When I see "Are you sure you want to place this order" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
  Then I touch the "YES" text # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:25
```

6 scenarios (6 passed)  
70 steps (70 passed)  
1m26.434s

NOW TESTING CHARACTER SET: !"#\$%&'()\*+,-./

Number of Combinations: 58650

Testing:  
Length: 1

Feature: Form Vulnerability Test

Scenario: As a new user I should be able to create a new account # ./features/form\_field\_test.feature:4

```
When I see "Sign Up" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
Then I press "Sign Up" # calabash-android-0.9.8/lib/calabash-android/steps/press_button_steps.rb:17
When I see "Username" # calabash-android-0.9.8/lib/calabash-android/steps/assert_steps.rb:5
```

# Noteworthy Discoveries

- App allows for weak usernames and passwords
- No max length of the form fields
- Screens aren't properly stacked
- Sqlite database appears to be vulnerable to injection attack



```
otto@ottor-HP-Notebook:~/Apps/Mobile-Application-Tech-Year-3-Semester-2/SWEN3165/Presentation$ ./testApp.sh
```

# Alternative App Testing Tools

1. Espresso
2. Flutter Testing Package
3. Webdriver + Appium



# The End

Any Questions?

