Android Application Automation Using MonkeyTalk

MONKEY
TALK

CONTUS
Technology at IT's Best

Content

- Why Automation ?
- Why MonkeyTalk ?
- Requirements
- Steps To Automate

Why Automation ?

- Save Time.
- Re-usability
- Repeatability
- Increased Coverage.
- Increase the effectiveness, efficiency.
- Accelerated testing cycle.
- Promote software quality.
- High productivity environment.

Why MonkeyTalk ?

- An open source automation tool.
- Supports both Android and iPhone.
- Easy to learn and use.
- Powerful Functional Testing tool.
- Scripts are simple and understandable.
- Same script can be used for both Android and iPhone.
- Supports looping concept.
- Supports Emulator, Tethered or Networked Device.

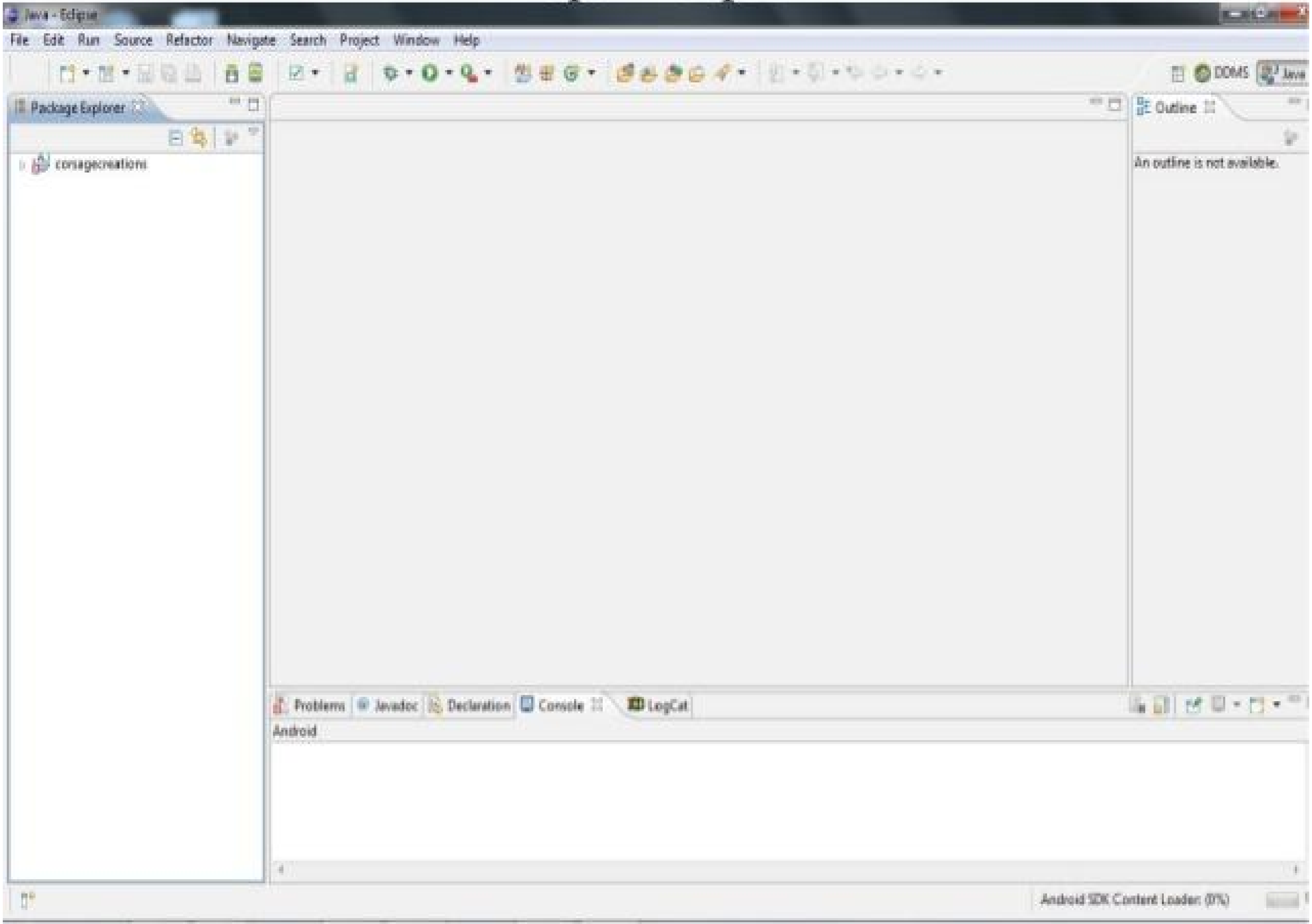
Requirements

- Eclipse
- Android SDK
- MonkeyTalk IDE
- MonkeyTalk Agent
- MonkeyTalk Scripts
- Source code of the application.

Eclipse

- Open Eclipse
- Create new project
- Select “existing code”.
- Import project
- Add MonkeyTalk Agent.
- Add agent to Aspect path.
- Select Build path and Android version in properties.
- Set Run configurations.
- Run as Android application.

Open Eclipse



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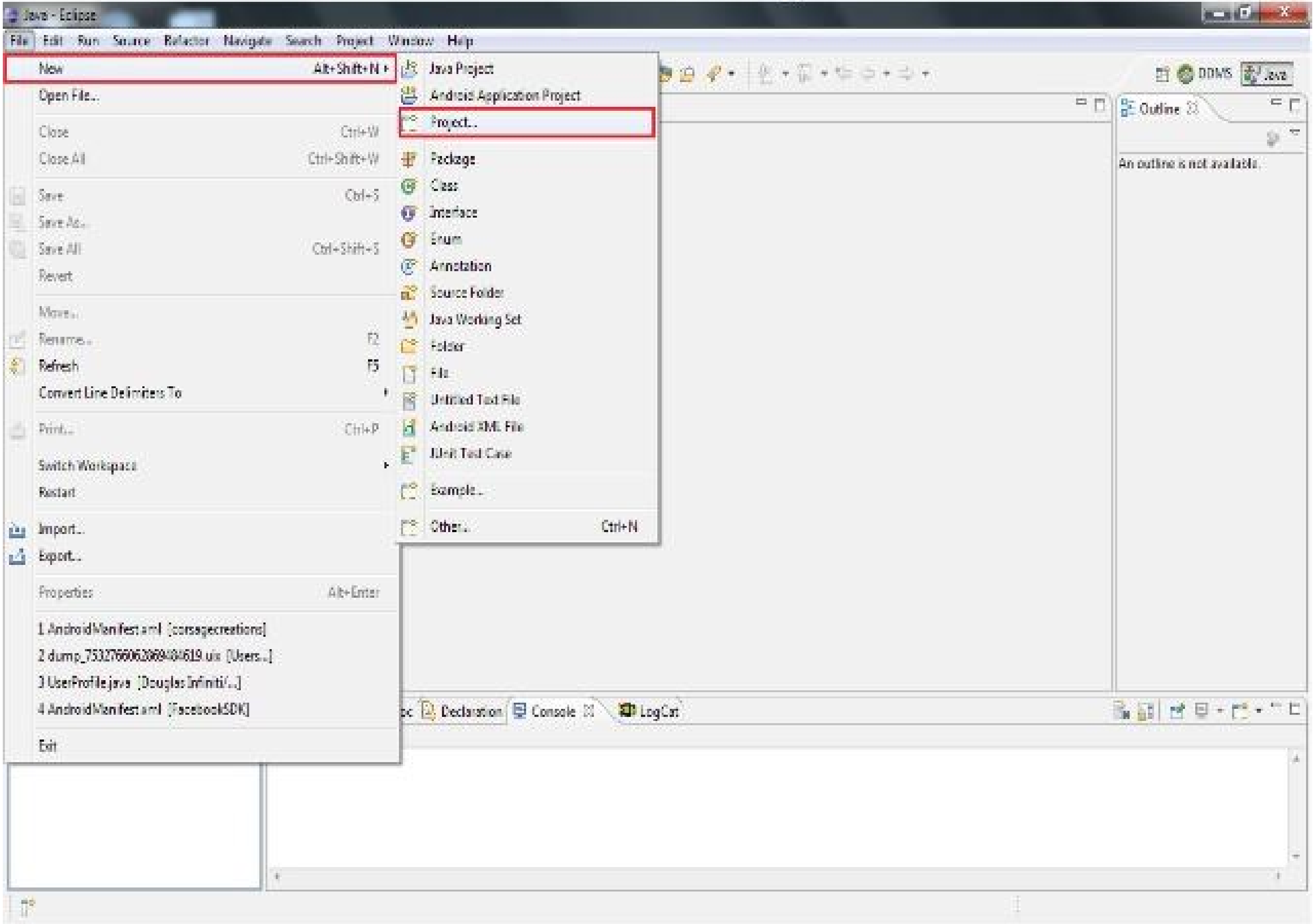
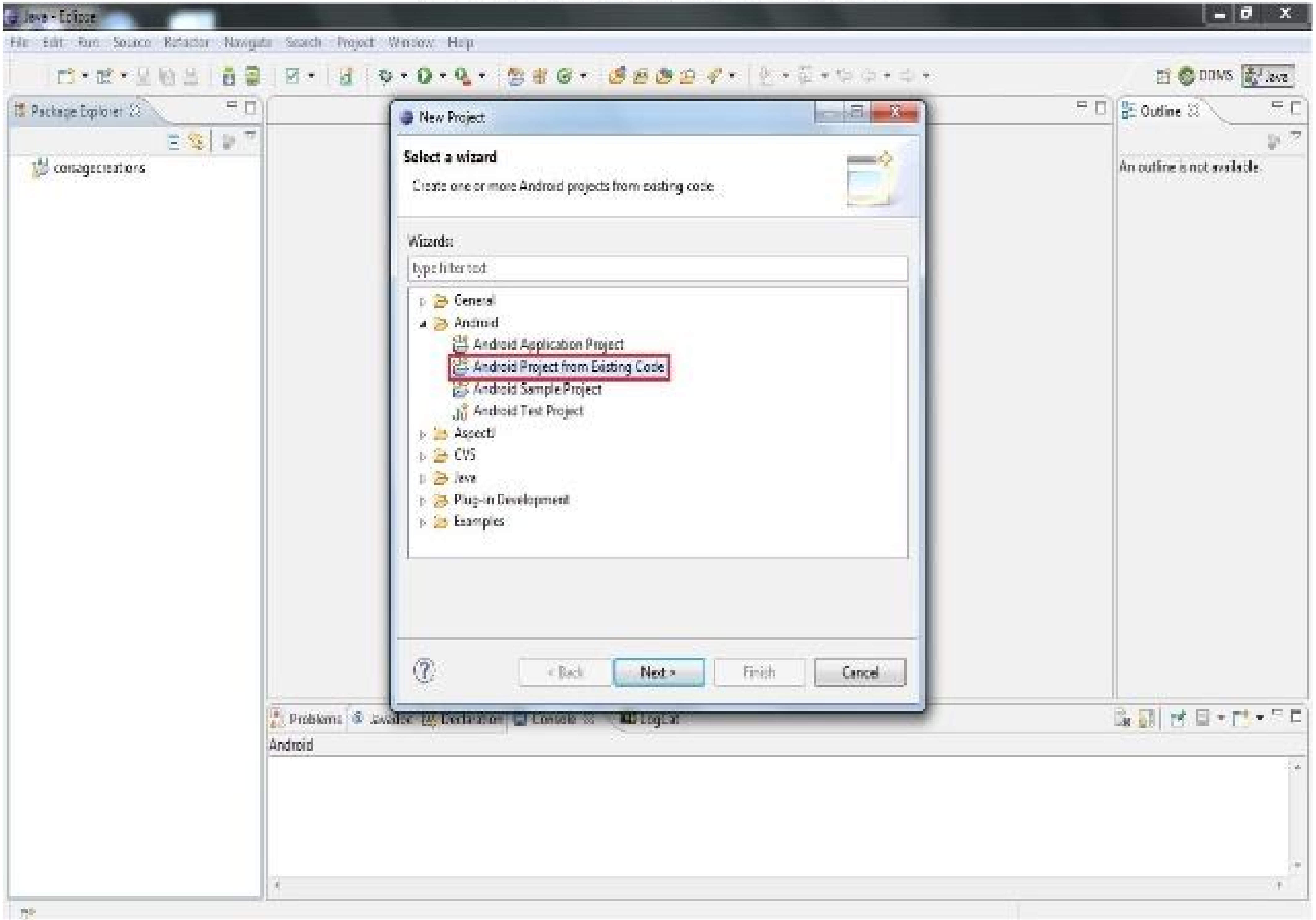
Android

Android SDK Content Loader: (0%)

Create New Project



Select Existing Code Option



Java - Eclipse
File Edit Run Source Refactor Navigate Search Project Window Help
DDMS Java
Package Explorer
consagecreations
Outline
An outline is not available.
Problems Javadoc Declaration Console LogCat
Android

New Project

Select a wizard

Create one or more Android projects from existing code

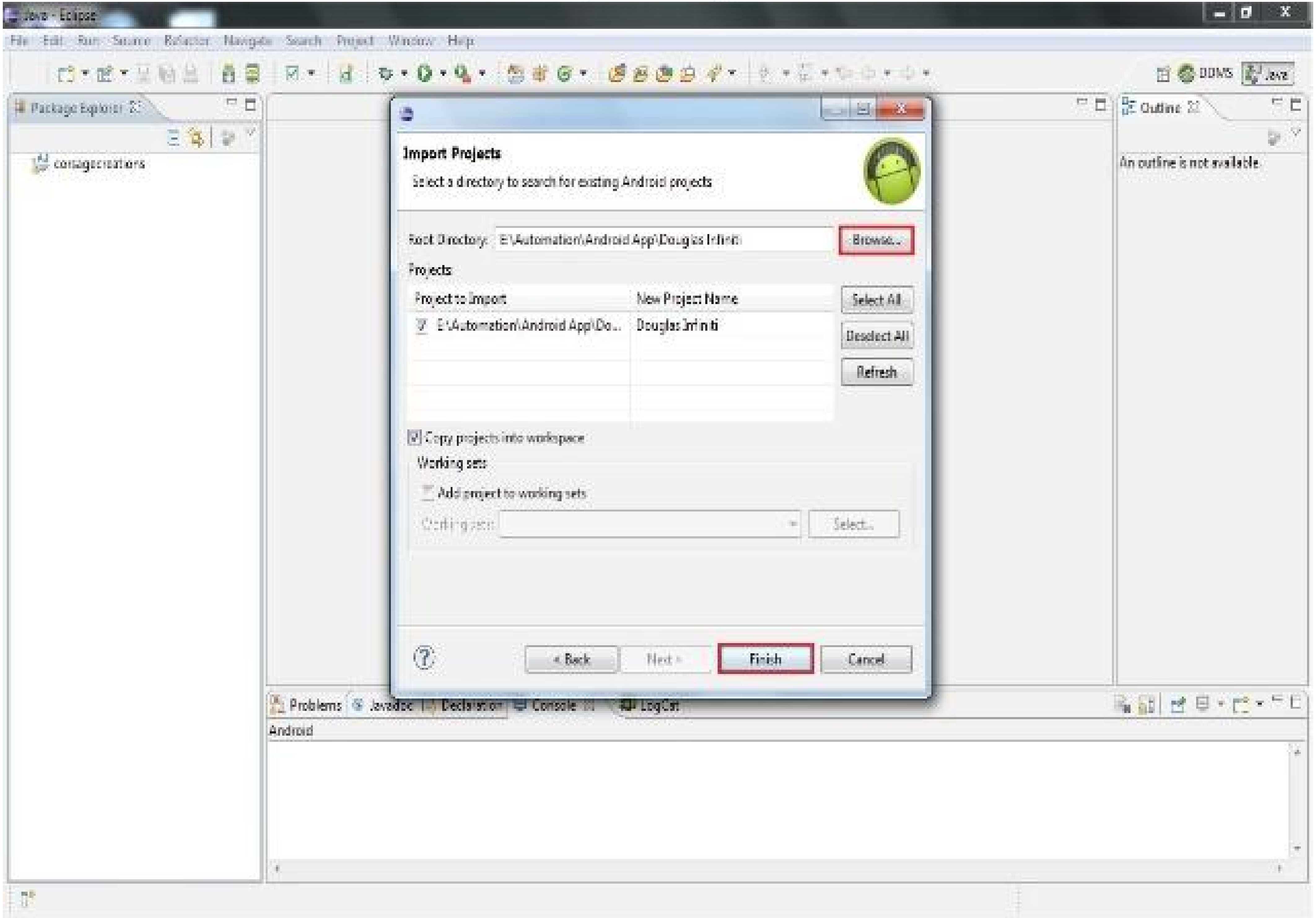
Wizards:

type filter text

- General
- Android
  - Android Application Project
  - Android Project from Existing Code
  - Android Sample Project
  - Android Test Project
- AspectJ
- CVS
- Java
- Plug-in Development
- Examples

< Back | Next > | Finish | Cancel

Import Project



Import Projects

Select a directory to search for existing Android projects

Root Directory: E:\Automation\Android App\Douglas Infiniti

Projects

Project to Import	New Project Name
☑ E:\Automation\Android App\Do...	Douglas Infiniti

☑ Copy projects into workspace

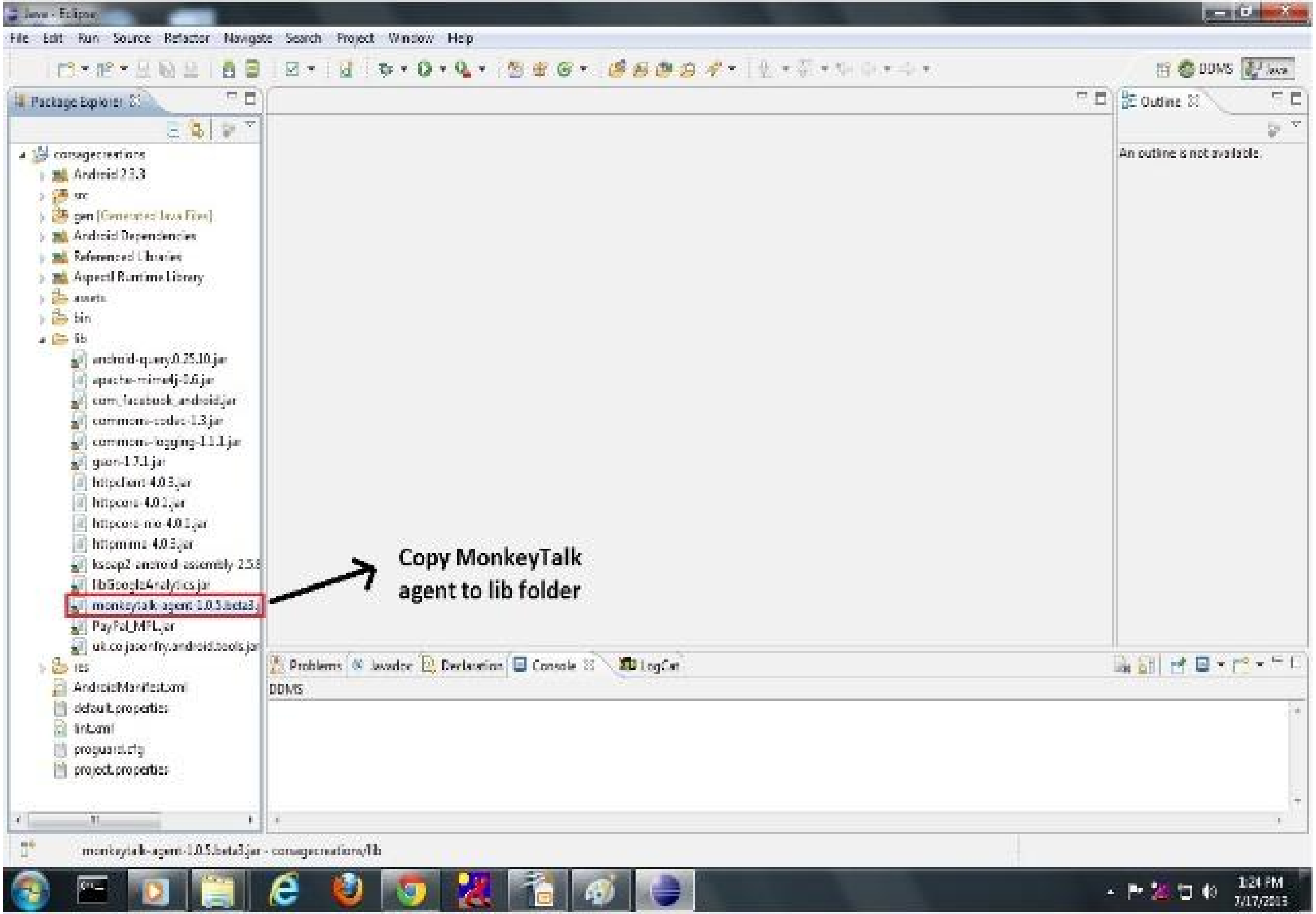
Working sets

□ Add project to working sets

Working sets:

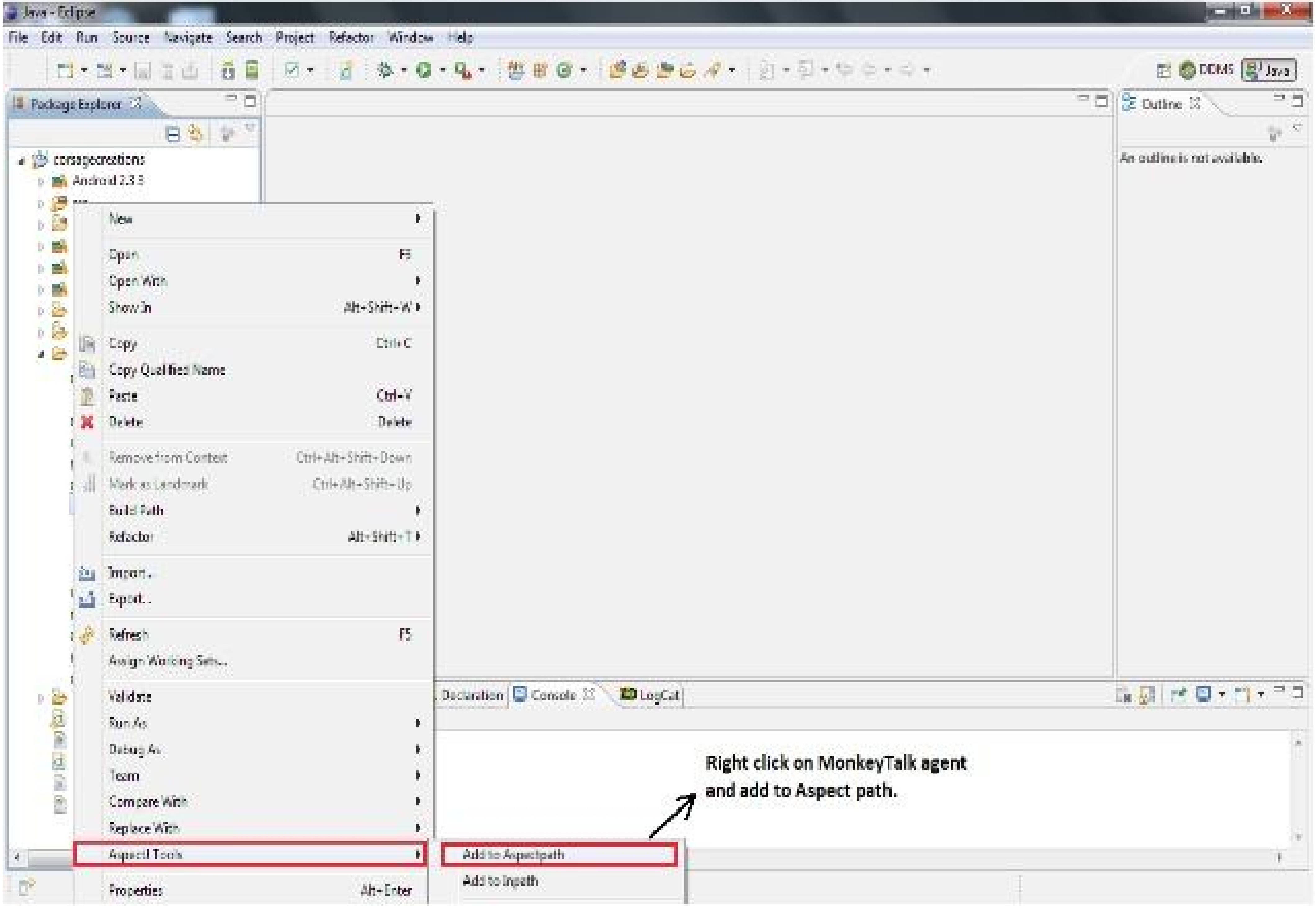
An outline is not available.

Add MonkeyTalk agent



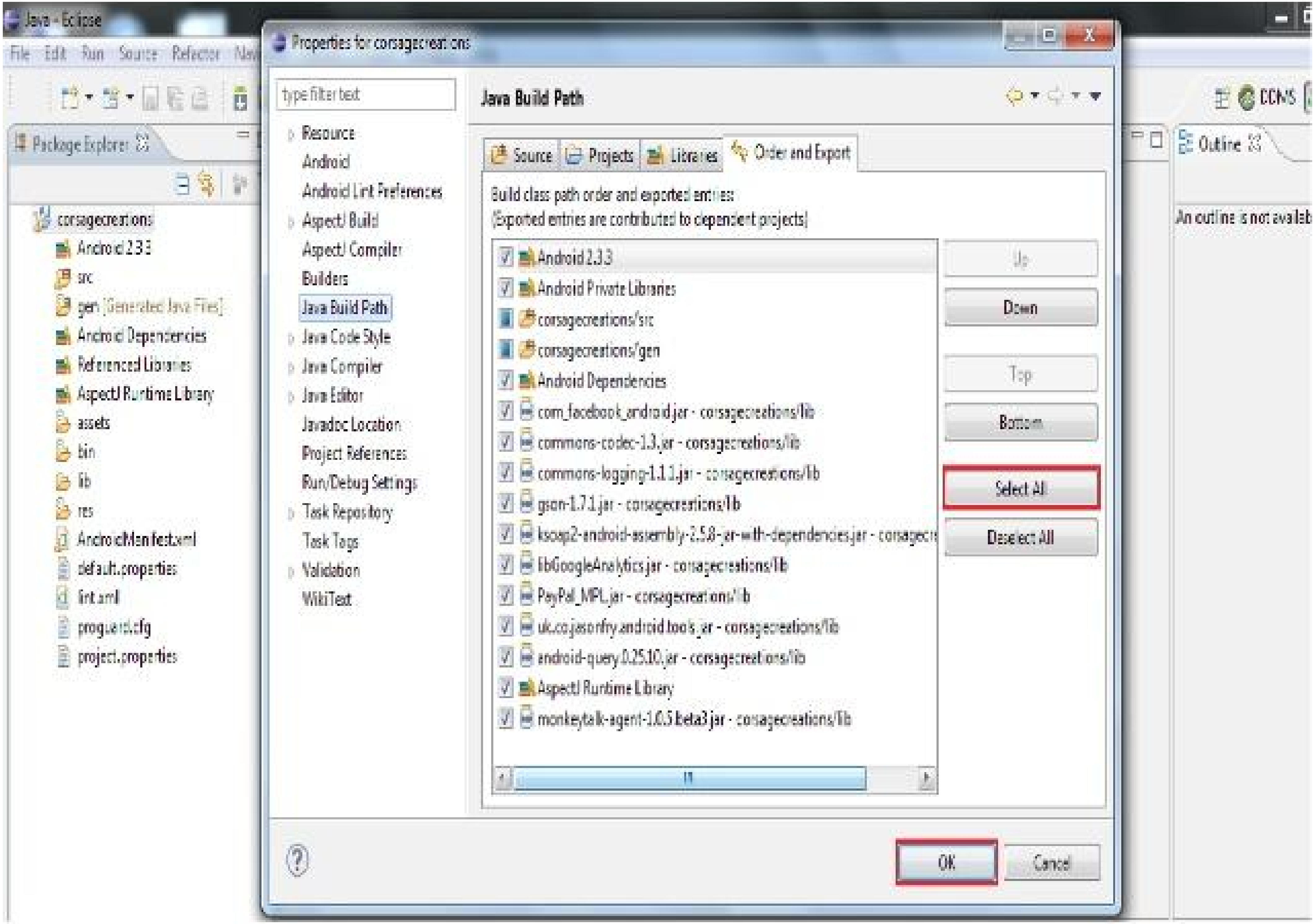
Copy MonkeyTalk agent to lib folder

Add MonkeyTalk Agent to Aspect path



Right click on MonkeyTalk agent and add to Aspect path.

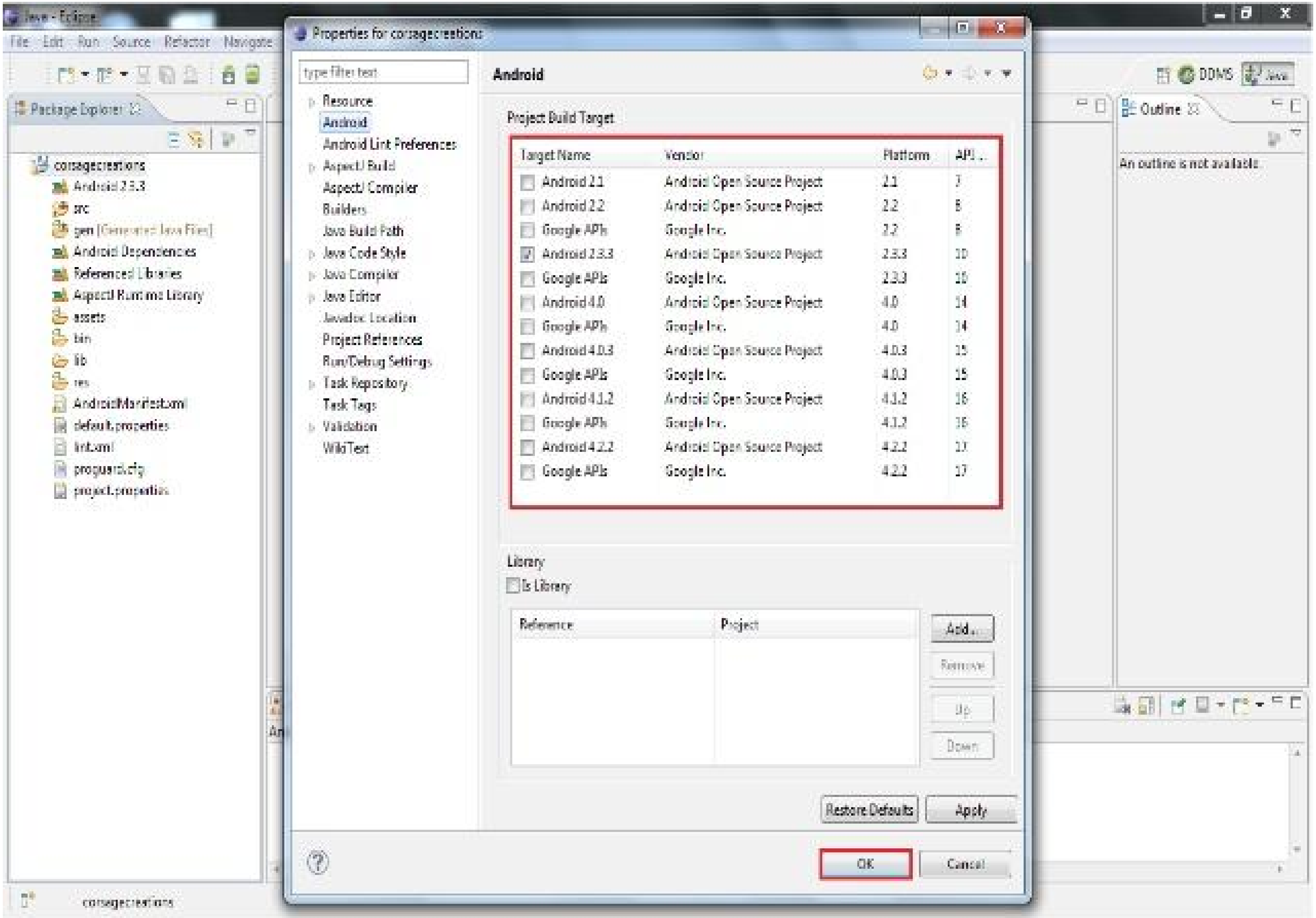
Select Build Path From Properties



Build class path order and exported entries:
(Exported entries are contributed to dependent projects)

☑ Android 2.3.3
☑ Android Private Libraries
■ corsagecreations/src
■ corsagecreations/gen
☑ Android Dependencies
☑ com_facebook_android.jar - corsagecreations/lib
☑ commons-codec-1.3.jar - corsagecreations/lib
☑ commons-logging-1.1.1.jar - corsagecreations/lib
☑ gson-1.7.1.jar - corsagecreations/lib
☑ ksoap2-android-assembly-2.5.8-jar-with-dependencies.jar - corsagecr
☑ libGoogleAnalytics.jar - corsagecreations/lib
☑ PayPal_MPL.jar - corsagecreations/lib
☑ uk.co.jasonfry.android.tools.jar - corsagecreations/lib
☑ android-query.0.25.10.jar - corsagecreations/lib
☑ AspectJ Runtime Library
☑ monkeytalk-agent-1.0.5.beta3.jar - corsagecreations/lib

Select required Android version in properties



Properties for corsagecreations

Android

Project Build Target

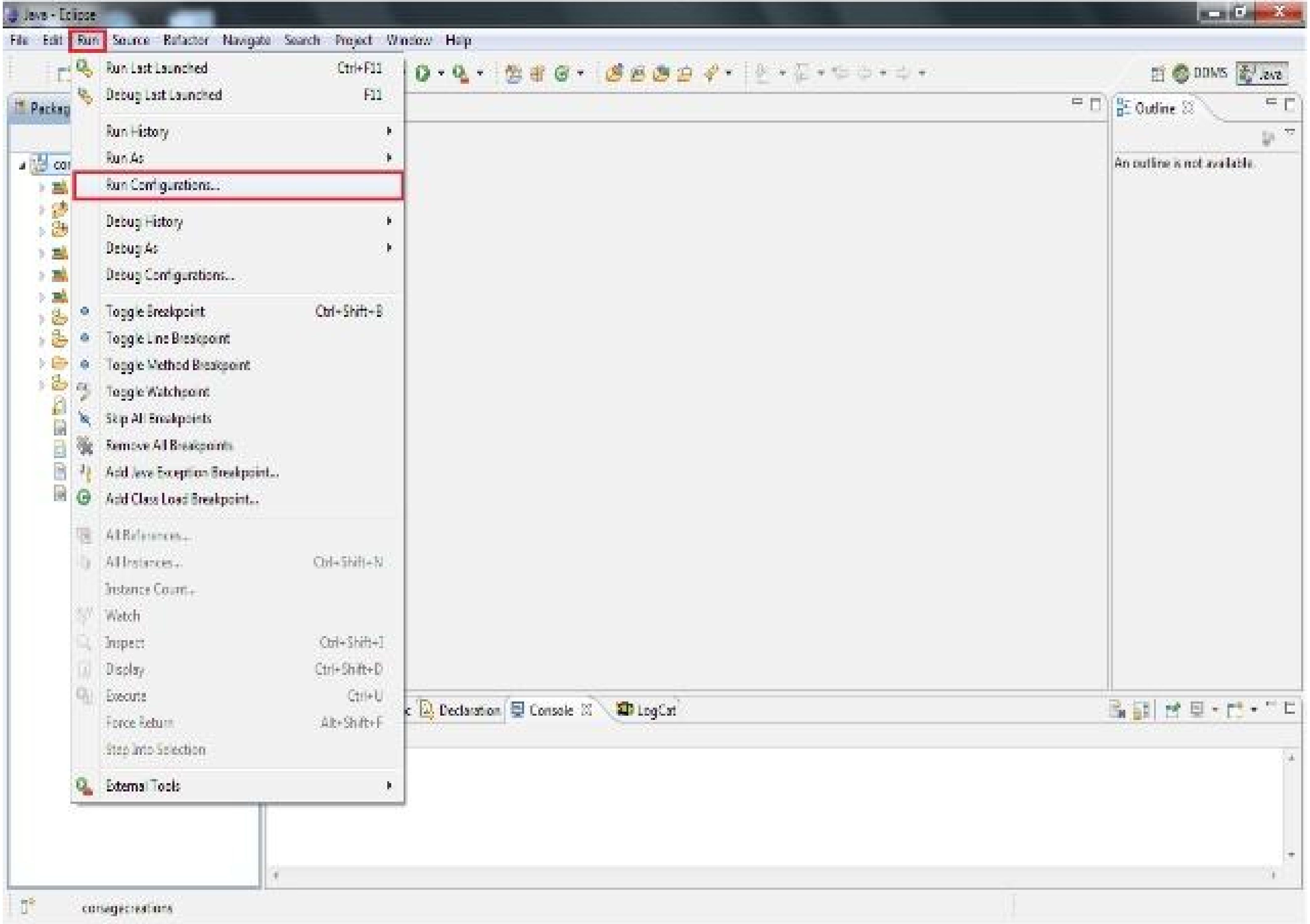
	Target Name	Vendor	Platform	API ...
□	Android 2.1	Android Open Source Project	2.1	7
□	Android 2.2	Android Open Source Project	2.2	8
□	Google APIs	Google Inc.	2.2	8
☑	Android 2.3.3	Android Open Source Project	2.3.3	10
□	Google APIs	Google Inc.	2.3.3	10
□	Android 4.0	Android Open Source Project	4.0	14
□	Google APIs	Google Inc.	4.0	14
□	Android 4.0.3	Android Open Source Project	4.0.3	15
□	Google APIs	Google Inc.	4.0.3	15
□	Android 4.1.2	Android Open Source Project	4.1.2	16
□	Google APIs	Google Inc.	4.1.2	16
□	Android 4.2.2	Android Open Source Project	4.2.2	17
□	Google APIs	Google Inc.	4.2.2	17

Library

□ Is Library

Reference	Project

Set Run configurations



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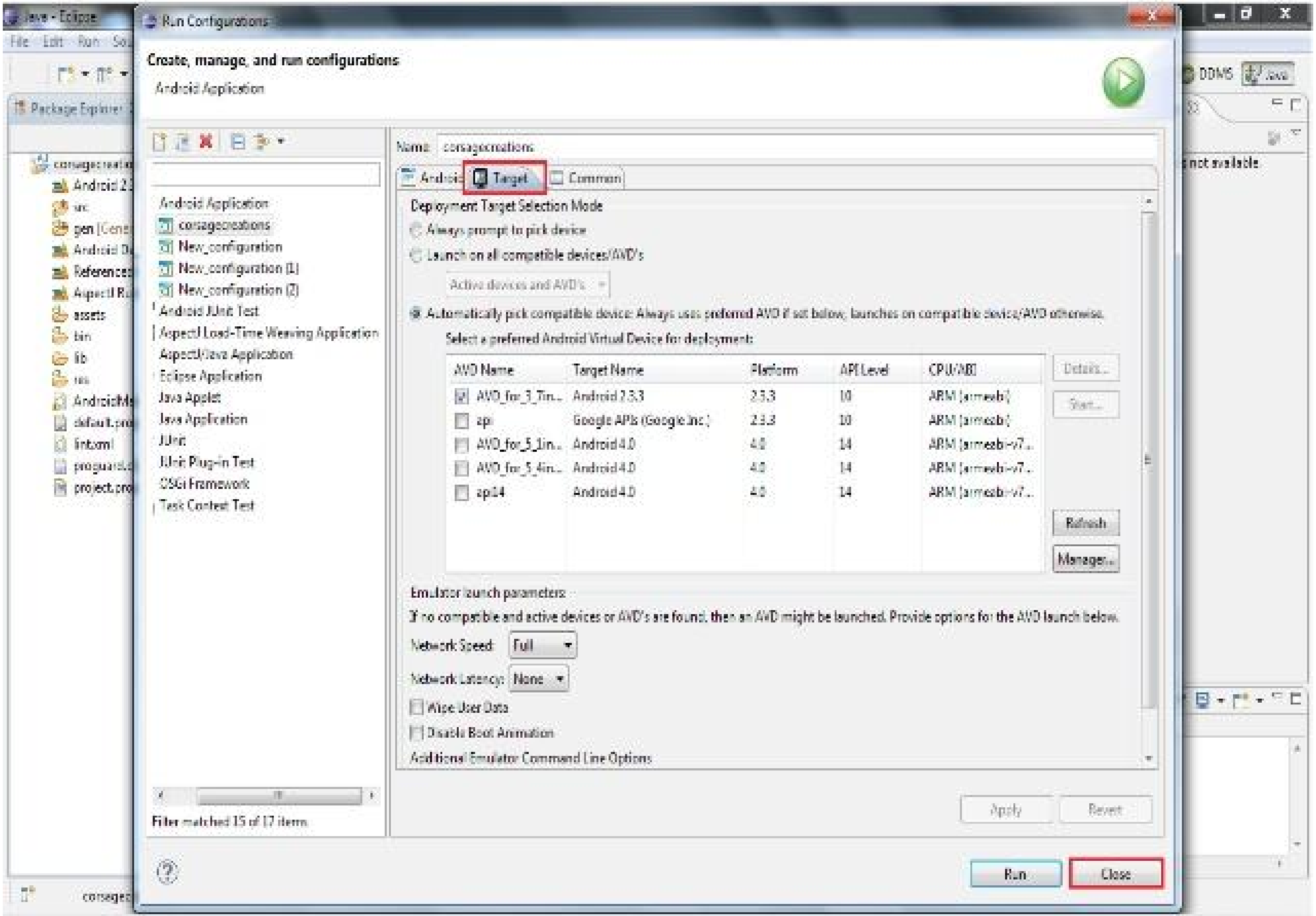
Select Target Android Version



Create, manage, and run configurations

Android Application

Name: consagecreations

Deployment Target Selection Mode

○ Always prompt to pick device

○ Launch on all compatible devices/AVD's

Active devices and AVD's

● Automatically pick compatible device: Always uses preferred AVD if set below, launches on compatible device/AVD otherwise.

Select a preferred Android Virtual Device for deployment:

AVD Name	Target Name	Platform	API Level	CPU/ABI
☑ AVD_for_3_7in...	Android 2.3.3	2.3.3	10	ARM (armeabi)
□ api	Google APIs (Google Inc.)	2.3.3	10	ARM (armeabi)
□ AVD_for_5_1in...	Android 4.0	4.0	14	ARM (armeabi-v7...
□ AVD_for_5_4in...	Android 4.0	4.0	14	ARM (armeabi-v7...
□ api14	Android 4.0	4.0	14	ARM (armeabi-v7...

Emulator launch parameters:

If no compatible and active devices or AVD's are found, then an AVD might be launched. Provide options for the AVD launch below.

Network Speed: Full

Network Latency: None

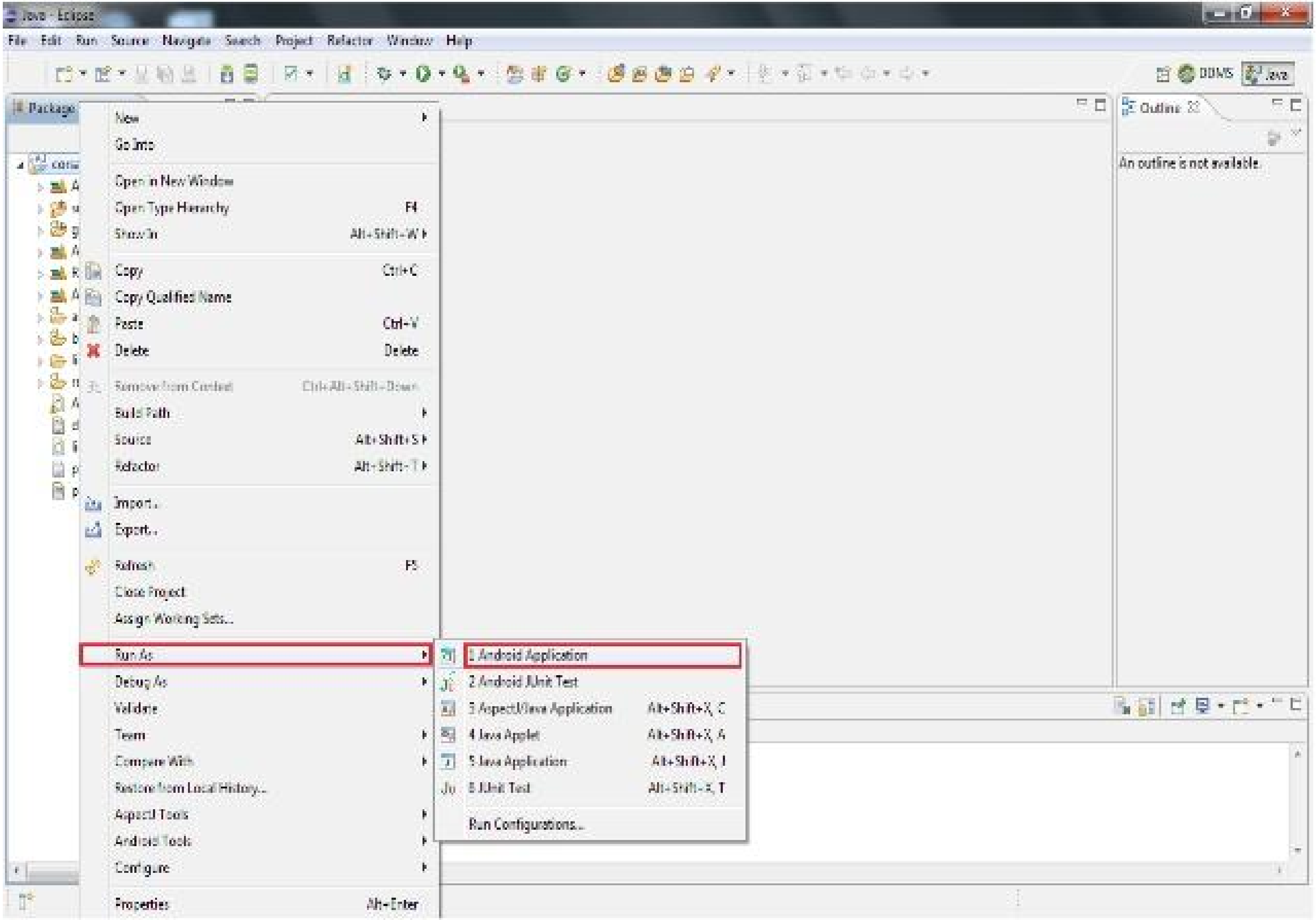
□ Wipe User Data

□ Disable Boot Animation

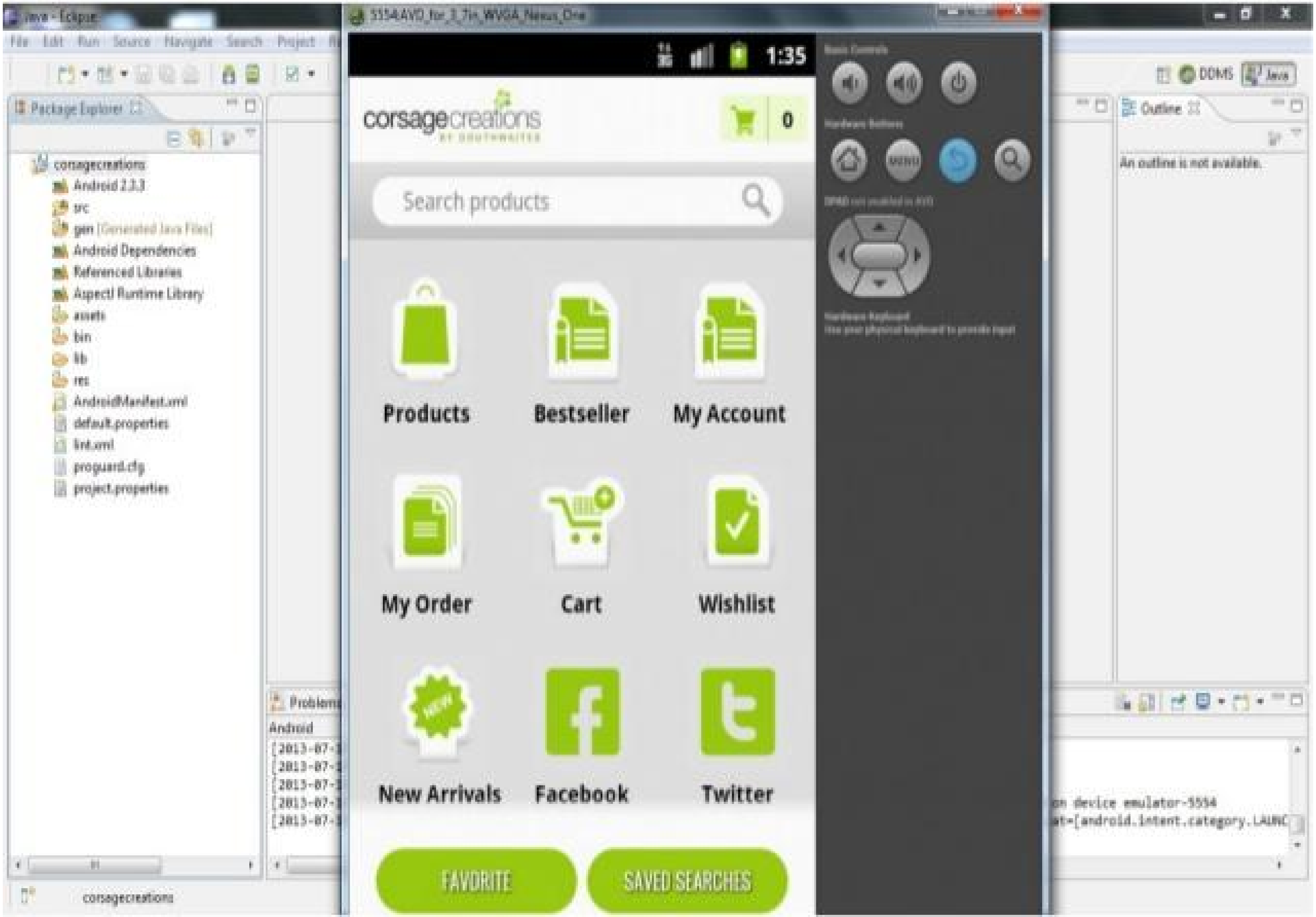
Additional Emulator Command Line Options

Filter matched 15 of 17 items

Run as Android application



Emulator gets started



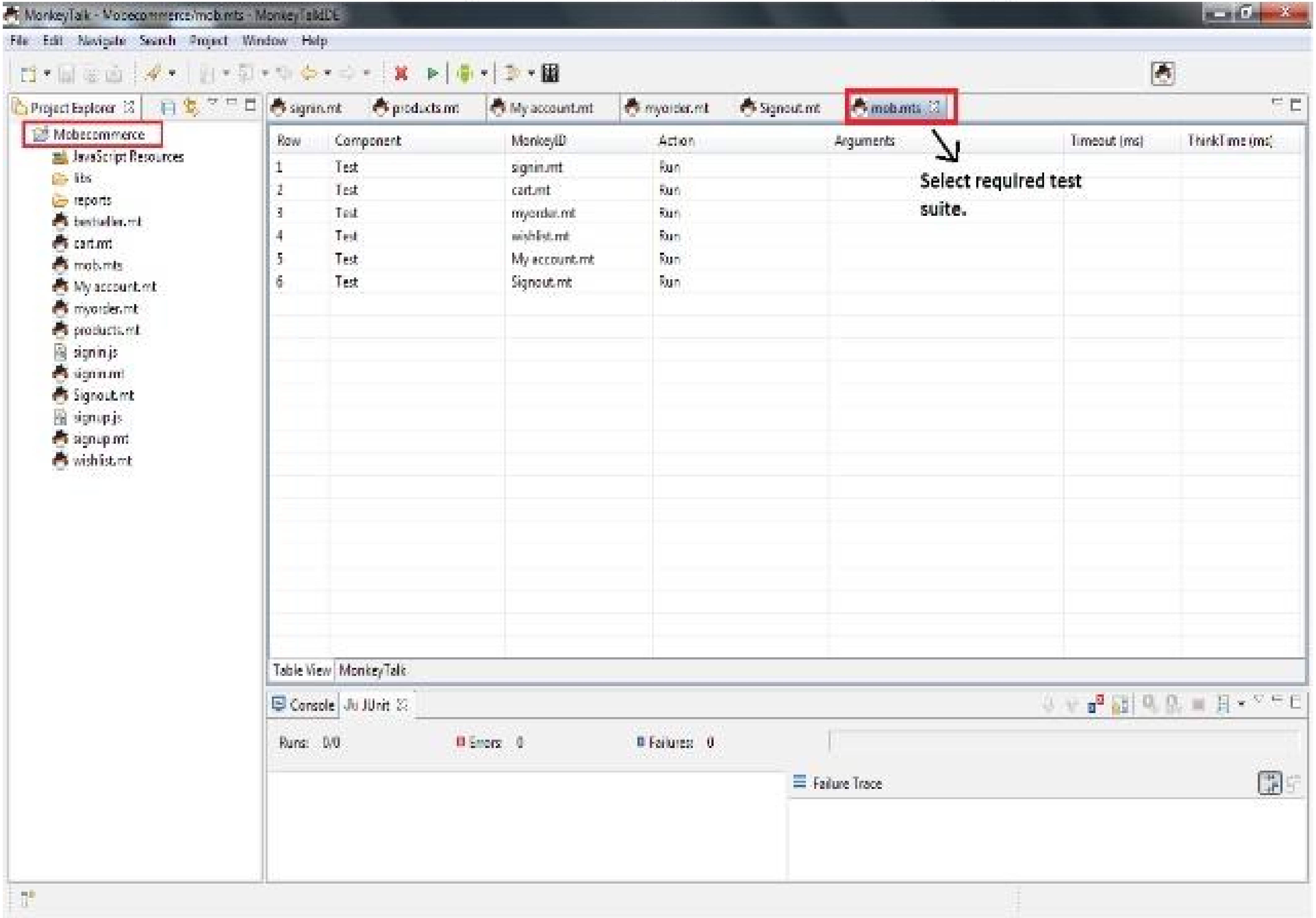
```
[2013-07-1
[2013-07-1
[2013-07-1
[2013-07-1
[2013-07-1
```

```
on device emulator-5554
nt=[android.intent.category.LAUNC
```

MonkeyTalk Automation

- Start MonkeyTalk
- Open the existing project.
- Select required test suite.
- Link Emulator with MonkeyTalk.
- Run as a Test Suite.
- Results generated.
- Reports generated.

Start MonkeyTalk and open an existing project

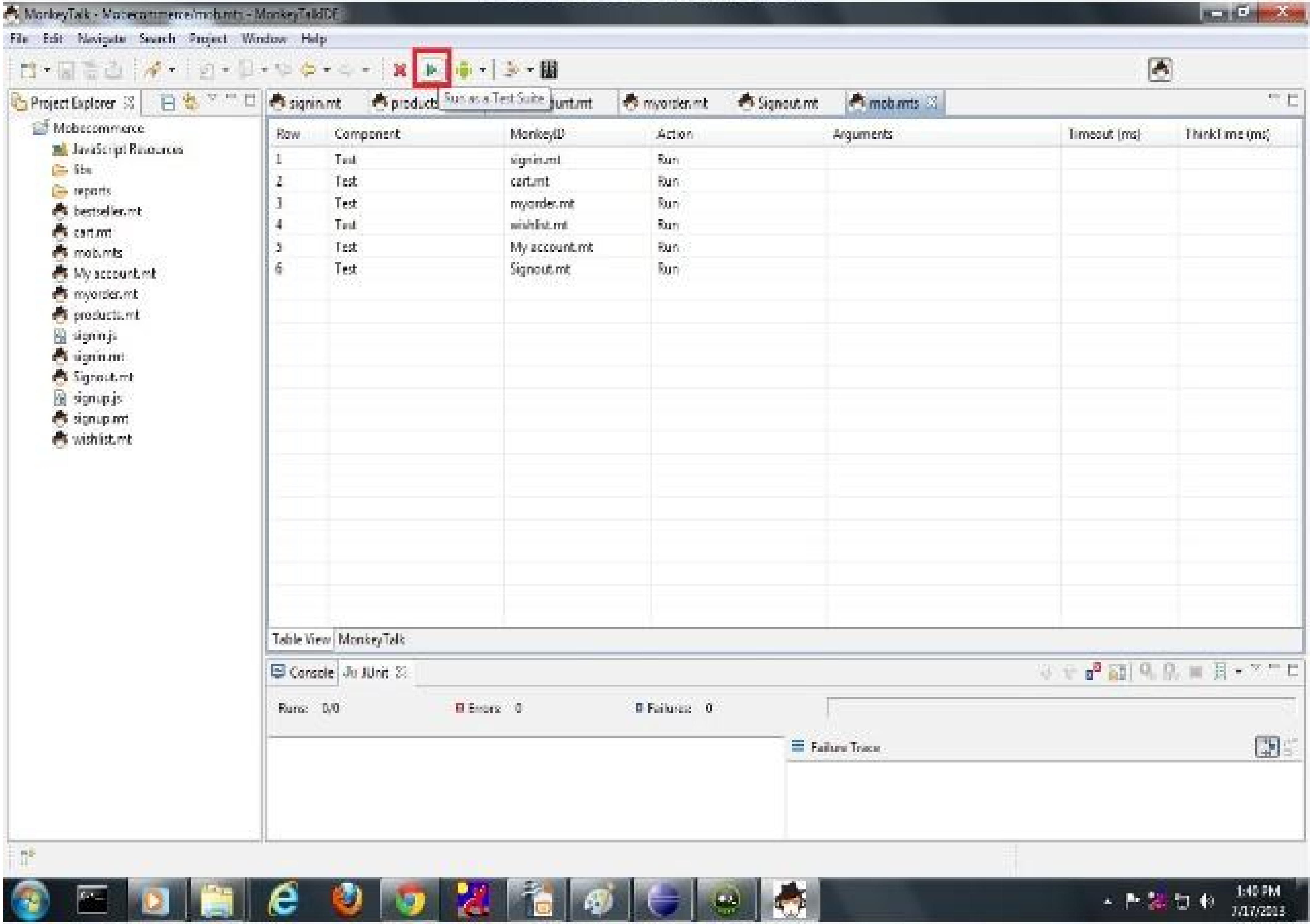


Row	Component	MonkeyID	Action	Arguments	Timeout (ms)	ThinkTime (ms)
1	Test	signin.mt	Run			
2	Test	cart.mt	Run			
3	Test	myorder.mt	Run			
4	Test	wishlist.mt	Run			
5	Test	My account.mt	Run			
6	Test	Signout.mt	Run			

Select required test suite.

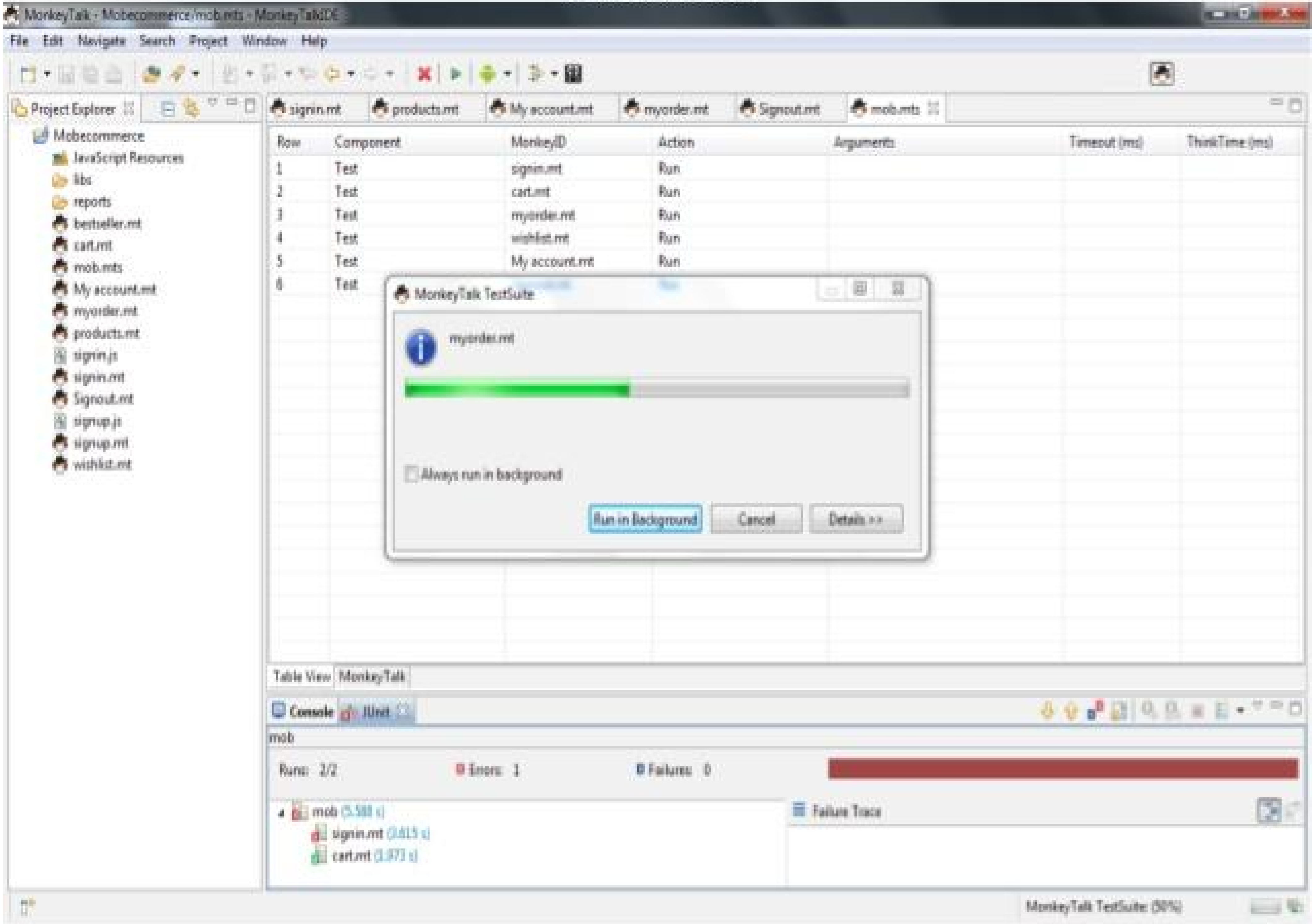
Runs: 0/0 Errors: 0 Failures: 0

Run as a Test Suite



Row	Component	MonkeyID	Action	Arguments	Timeout (ms)	ThinkTime (ms)
1	Test	signin.mt	Run			
2	Test	cart.mt	Run			
3	Test	myorder.mt	Run			
4	Test	wishlist.mt	Run			
5	Test	My account.mt	Run			
6	Test	Signout.mt	Run			

Test is Run



Row	Component	MonkeyID	Action	Arguments	Timeout (ms)	ThinkTime (ms)
1	Test	signin.mt	Run			
2	Test	cart.mt	Run			
3	Test	myorder.mt	Run			
4	Test	wishlist.mt	Run			
5	Test	My account.mt	Run			
6	Test					

MonkeyTalk TestSuite

myorder.mt

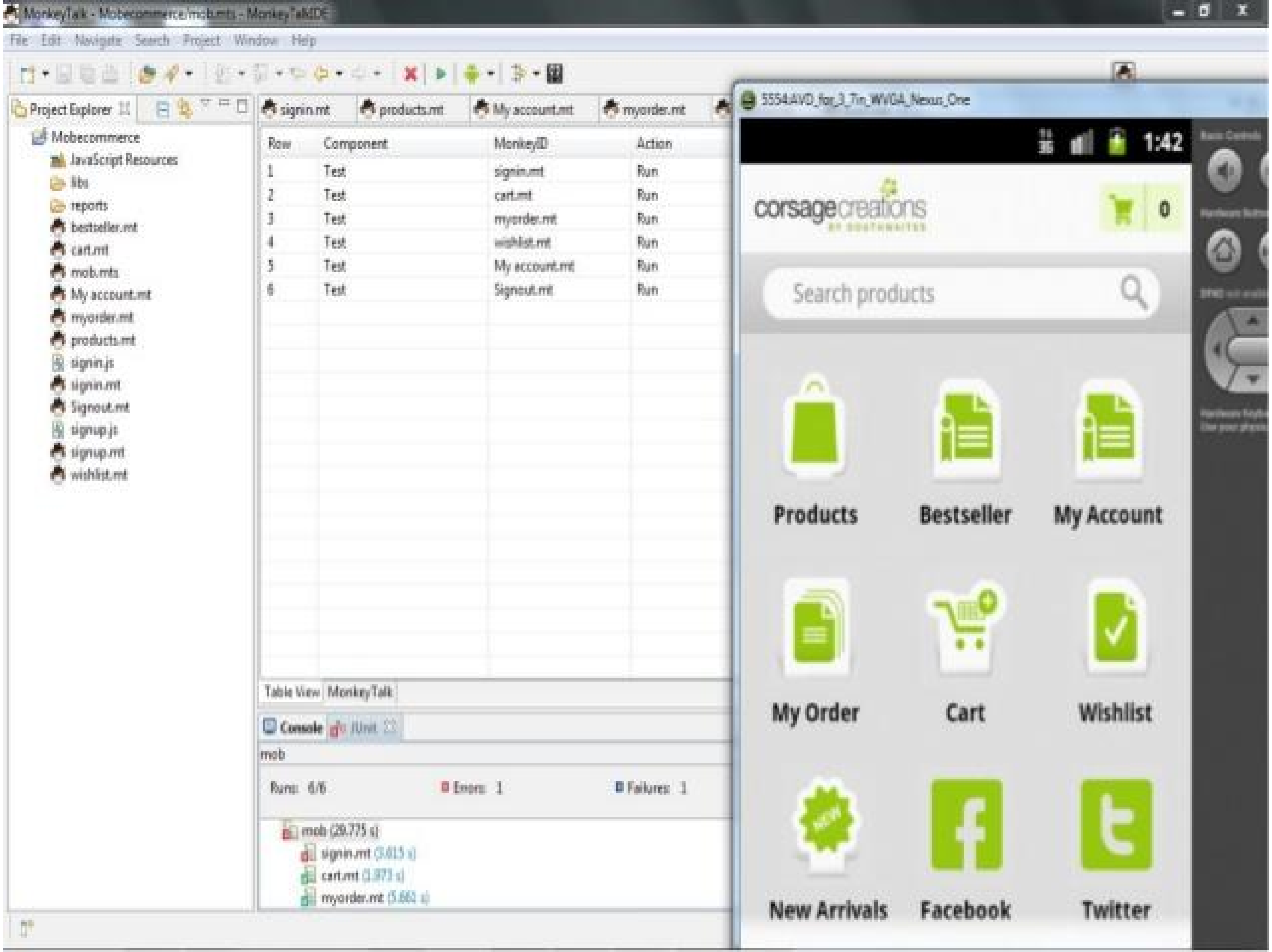
□ Always run in background

mob

Runs: 2/2 Errors: 1 Failures: 0

- mob (5.588 s)
  - signin.mt (3.615 s)
  - cart.mt (1.973 s)

MonkeyTalk TestSuite (50%)



Mobecommerce
- JavaScript Resources
- libs
- reports
- bestseller.mt
- cart.mt
- mob.mts
- My account.mt
- myorder.mt
- products.mt
- signin.js
- signin.mt
- Signout.mt
- signup.js
- signup.mt
- wishlist.mt

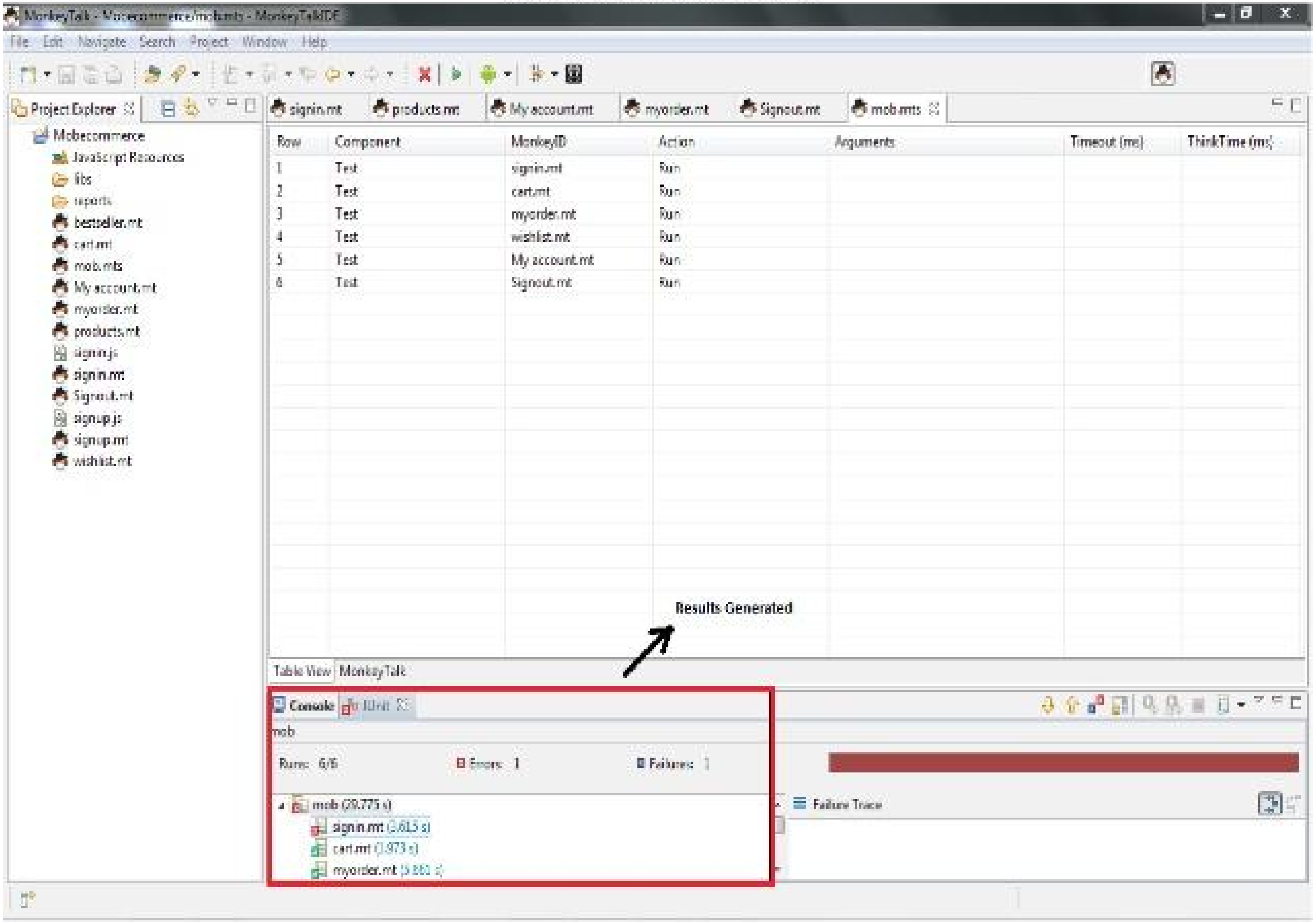
Row	Component	MonkeyID	Action
1	Test	signin.mt	Run
2	Test	cart.mt	Run
3	Test	myorder.mt	Run
4	Test	wishlist.mt	Run
5	Test	My account.mt	Run
6	Test	Signout.mt	Run

mob

Runs: 6/6 Errors: 1 Failures: 1

```
mob (28.775 s)
    signin.mt (3.615 s)
    cart.mt (3.973 s)
    myorder.mt (5.661 s)
```

Results Generated



Row	Component	MonkeyID	Action	Arguments	Timeout (ms)	ThinkTime (ms)
1	Test	signin.mt	Run			
2	Test	cart.mt	Run			
3	Test	myorder.mt	Run			
4	Test	wishlist.mt	Run			
5	Test	My account.mt	Run			
6	Test	Signout.mt	Run			

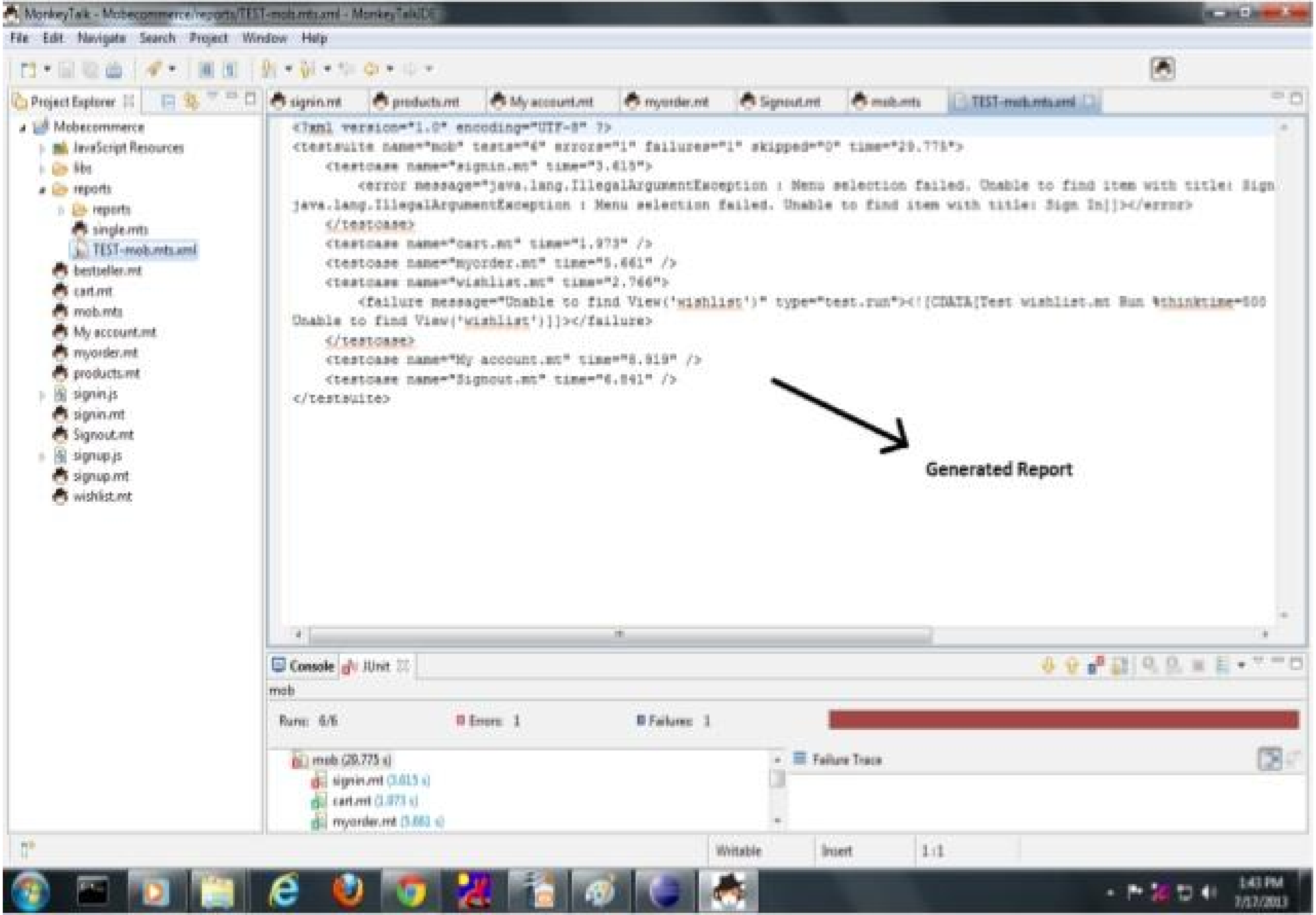
Results Generated

mob

Runs: 6/6 Errors: 1 Failures: 1

- mob (29.775 s)
  - signin.mt (3.615 s)
  - cart.mt (1.973 s)
  - myorder.mt (5.861 s)

Generated Report



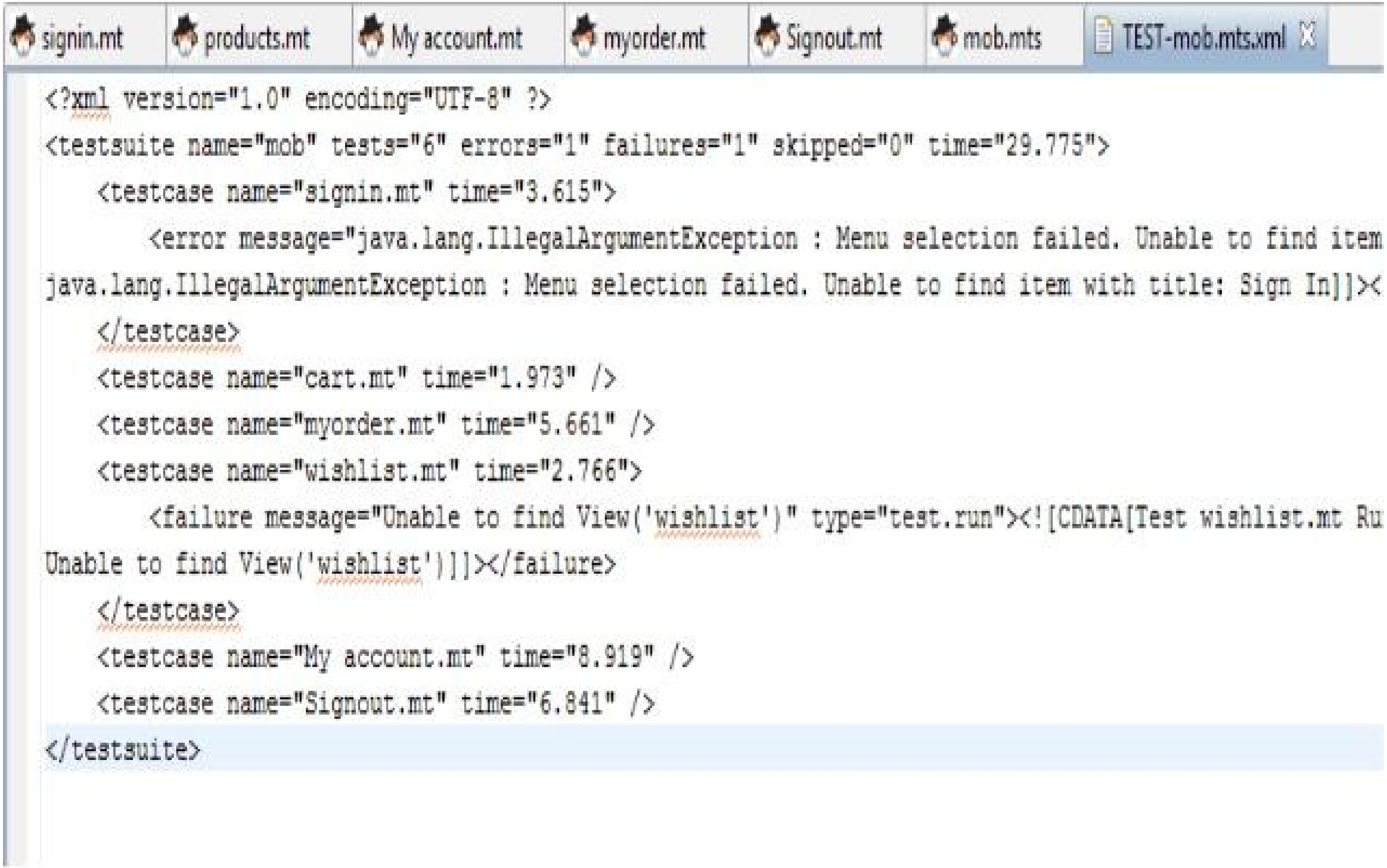
```
<?xml version="1.0" encoding="UTF-8" ?>
<testsuite name="mob" tests="6" errors="1" failures="1" skipped="0" time="29.775">
    <testcase name="signin.mt" time="3.615">
        <error message="java.lang.IllegalArgumentException : Menu selection failed. Unable to find item with title: Sign
java.lang.IllegalArgumentException : Menu selection failed. Unable to find item with title: Sign In]]></error>
    </testcase>
    <testcase name="cart.mt" time="1.973" />
    <testcase name="myorder.mt" time="5.661" />
    <testcase name="wishlist.mt" time="2.766">
        <failure message="Unable to find View('wishlist')" type="test.run"><![CDATA[Test wishlist.mt Run %thinktime=500
Unable to find View('wishlist')]]></failure>
    </testcase>
    <testcase name="My account.mt" time="8.919" />
    <testcase name="Signout.mt" time="6.841" />
</testsuite>
```

Generated Report

```
mob
Runs: 6/6          Errors: 1          Failures: 1

mob (29.775 s)
    signin.mt (3.615 s)
    cart.mt (1.973 s)
    myorder.mt (5.661 s)
```

Report



```
<?xml version="1.0" encoding="UTF-8" ?>
<testsuite name="mob" tests="6" errors="1" failures="1" skipped="0" time="29.775">
    <testcase name="signin.mt" time="3.615">
        <error message="java.lang.IllegalArgumentException : Menu selection failed. Unable to find item
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    </testcase>
    <testcase name="cart.mt" time="1.973" />
    <testcase name="myorder.mt" time="5.661" />
    <testcase name="wishlist.mt" time="2.766">
        <failure message="Unable to find View('wishlist')" type="test.run"><![CDATA[Test wishlist.mt Ru
Unable to find View('wishlist')]]></failure>
    </testcase>
    <testcase name="My account.mt" time="8.919" />
    <testcase name="Signout.mt" time="6.841" />
</testsuite>
```