



# **CMPE-277: Smartphone Application**

## **HW 5 - Android Datastorage**

**Submitted To**

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# Learning Objective:

using Android SQLite, develop a simple product item insert and search mobile App.

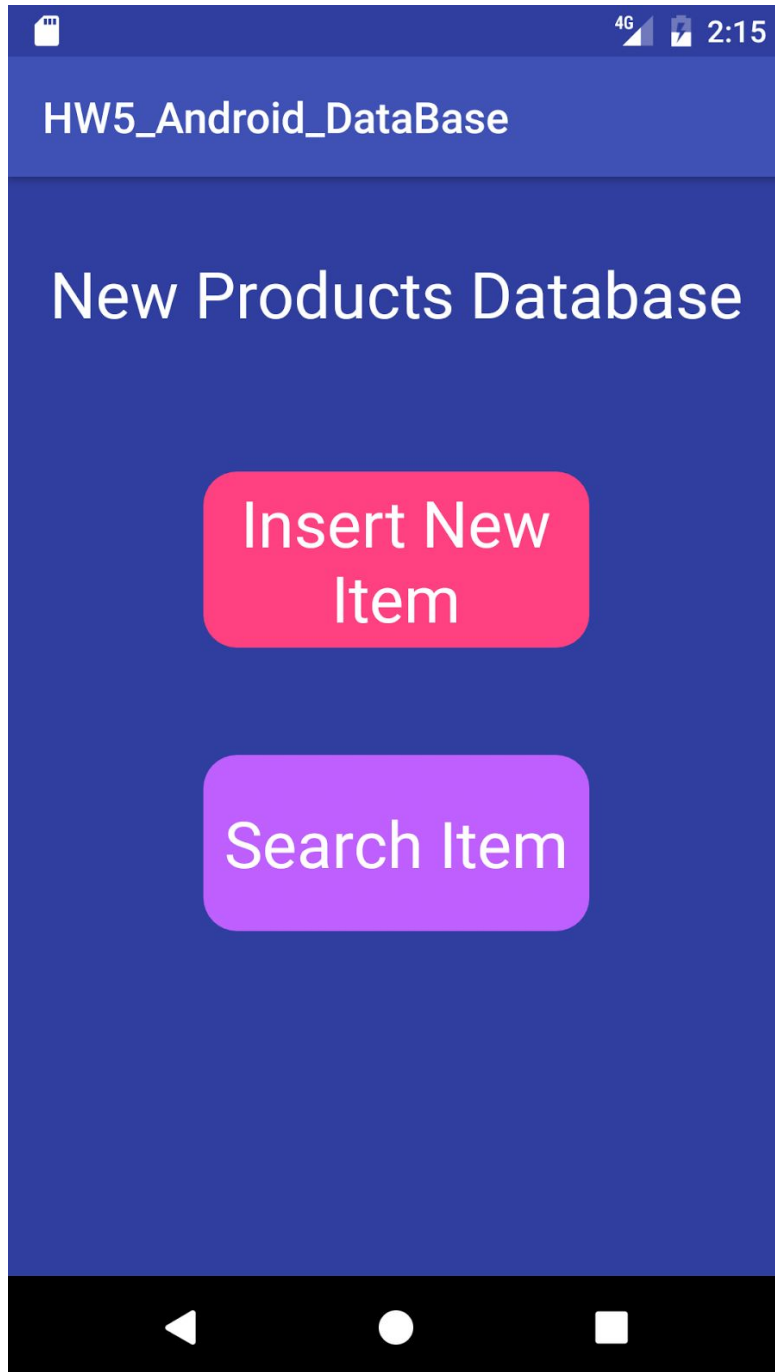
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## GitHub:

[https://github.com/stephen-sh-chen/CMPE277\\_Smartphone\\_App/tree/master/HW5\\_Android\\_Datastorage](https://github.com/stephen-sh-chen/CMPE277_Smartphone_App/tree/master/HW5_Android_Datastorage)

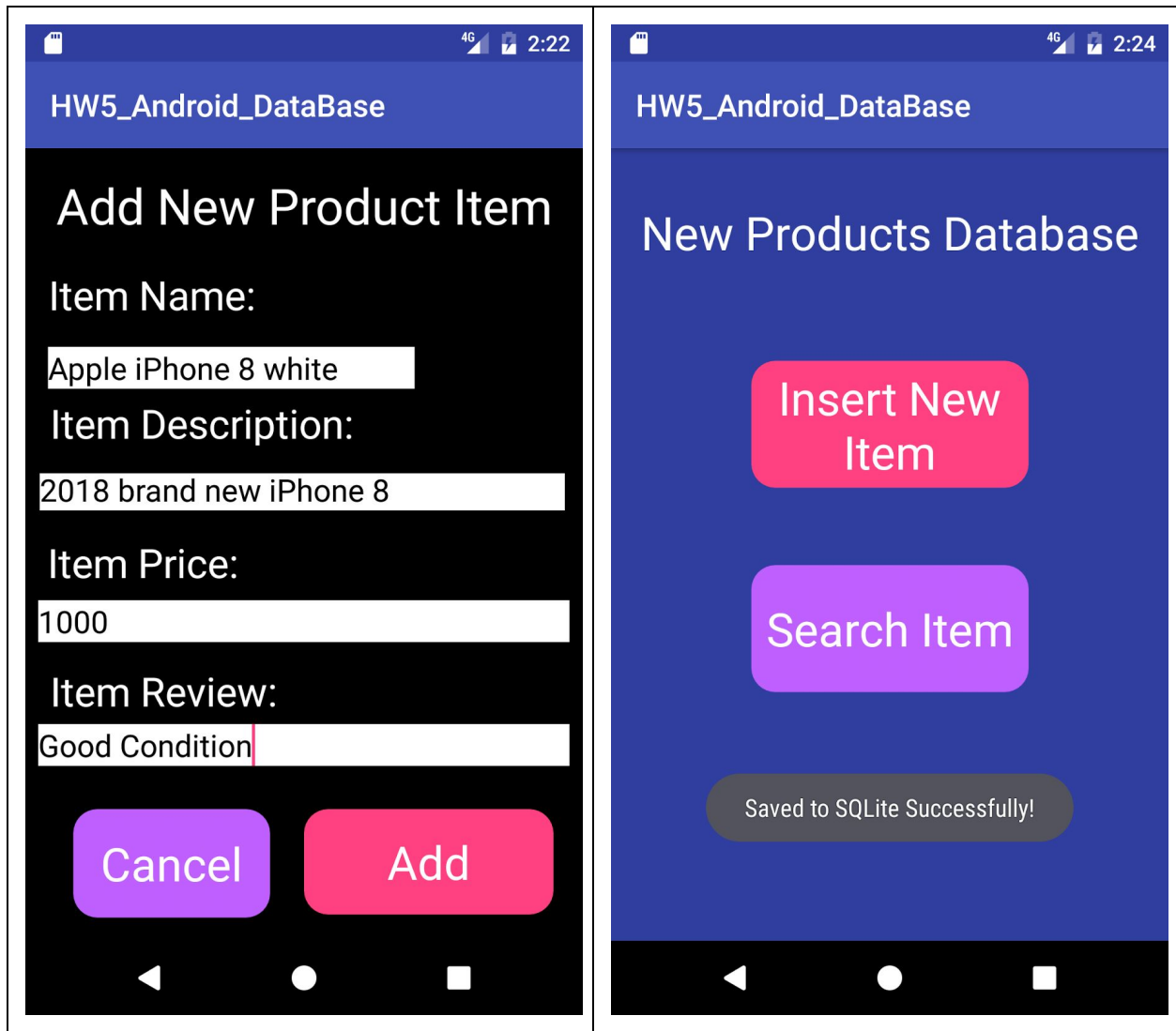
# 1. Main Activity

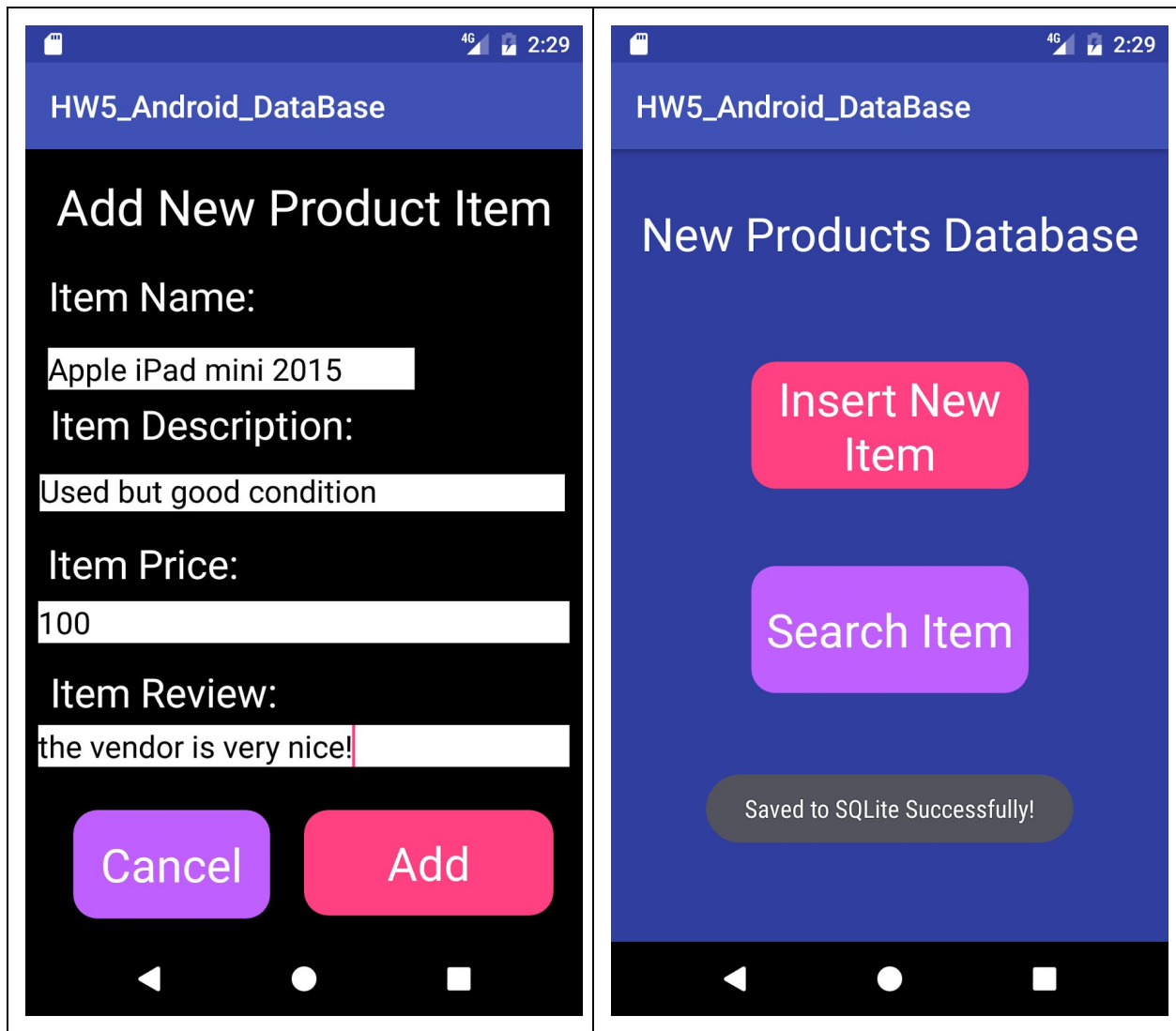
User can click the button "Insert New Item" to add a new product into our SQLite database. Also use can enter the search page by clicking the button "Search Item".



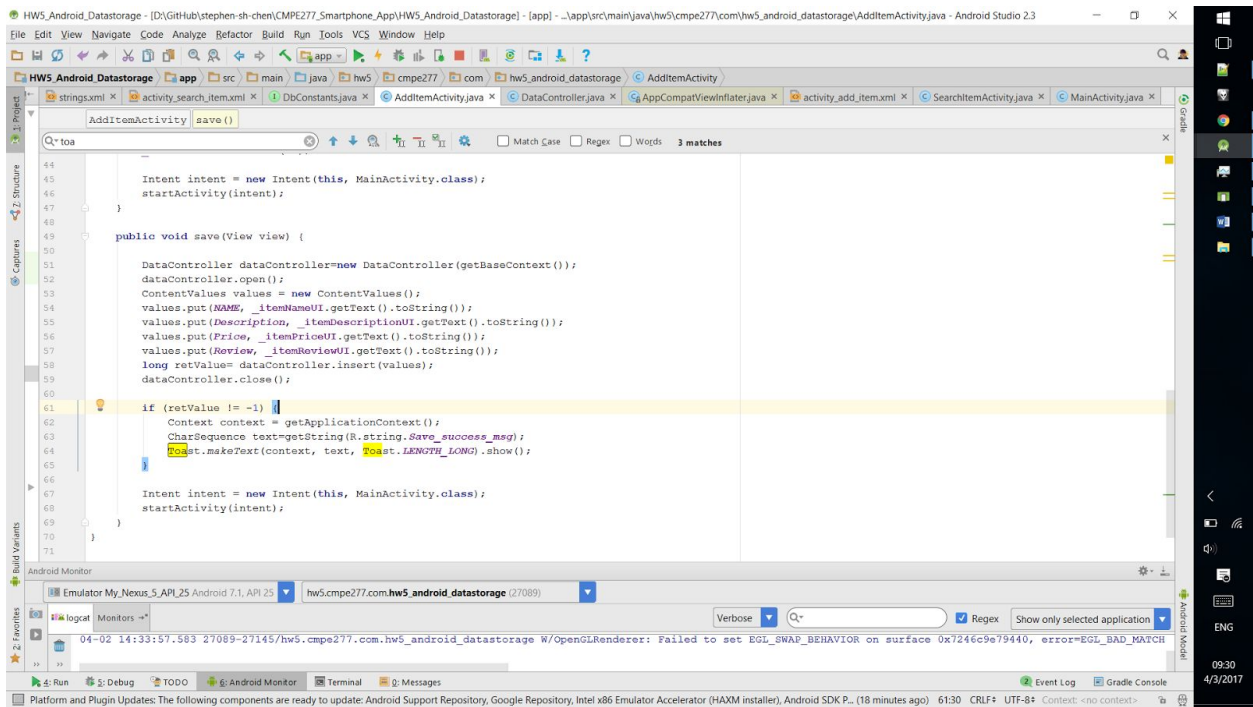
## 2. Add New Item Activity

After entering the “Add New Product Item” page, here we add two items into database as the screenshot below.



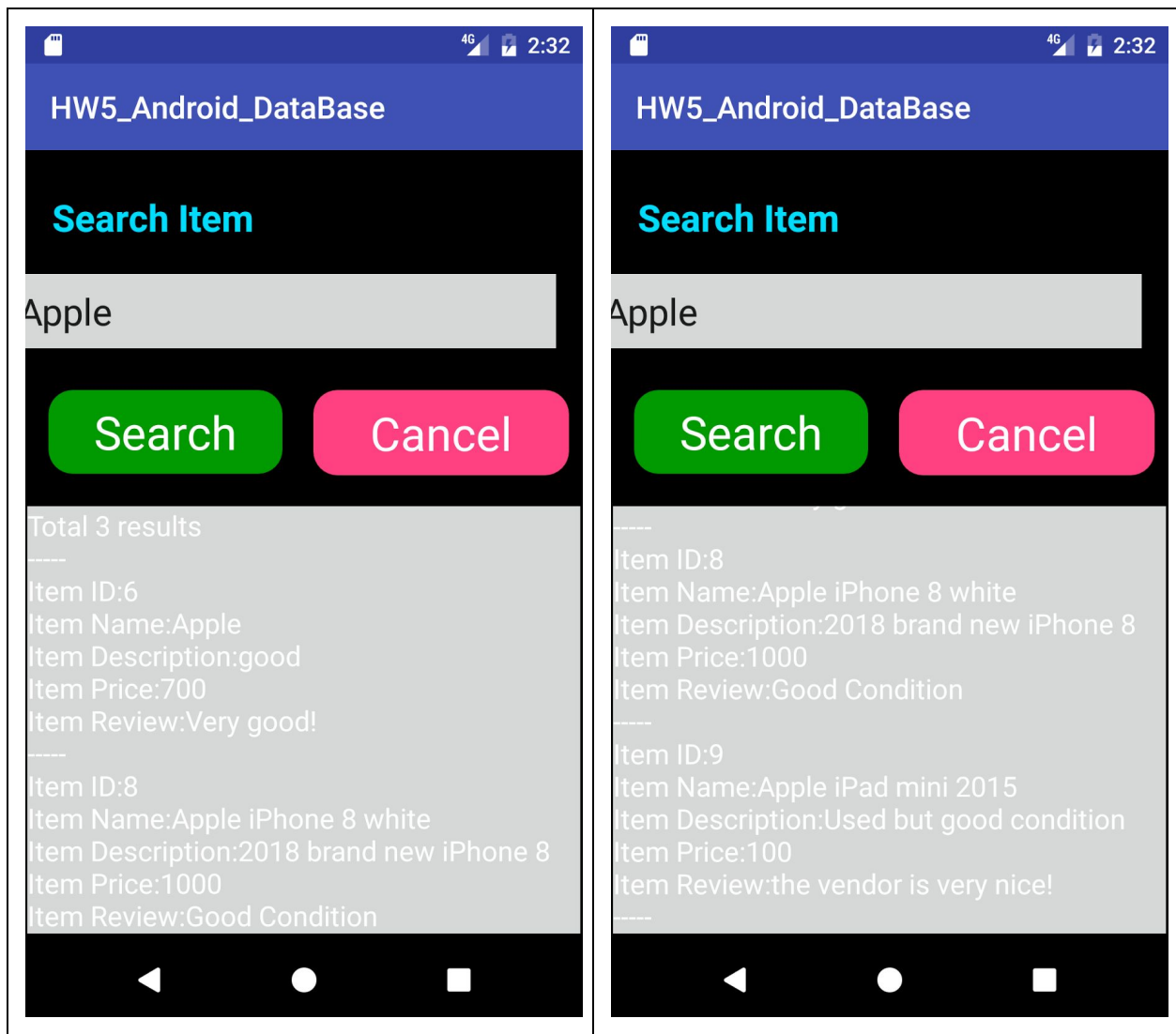


The main logic of the Add New Item function.



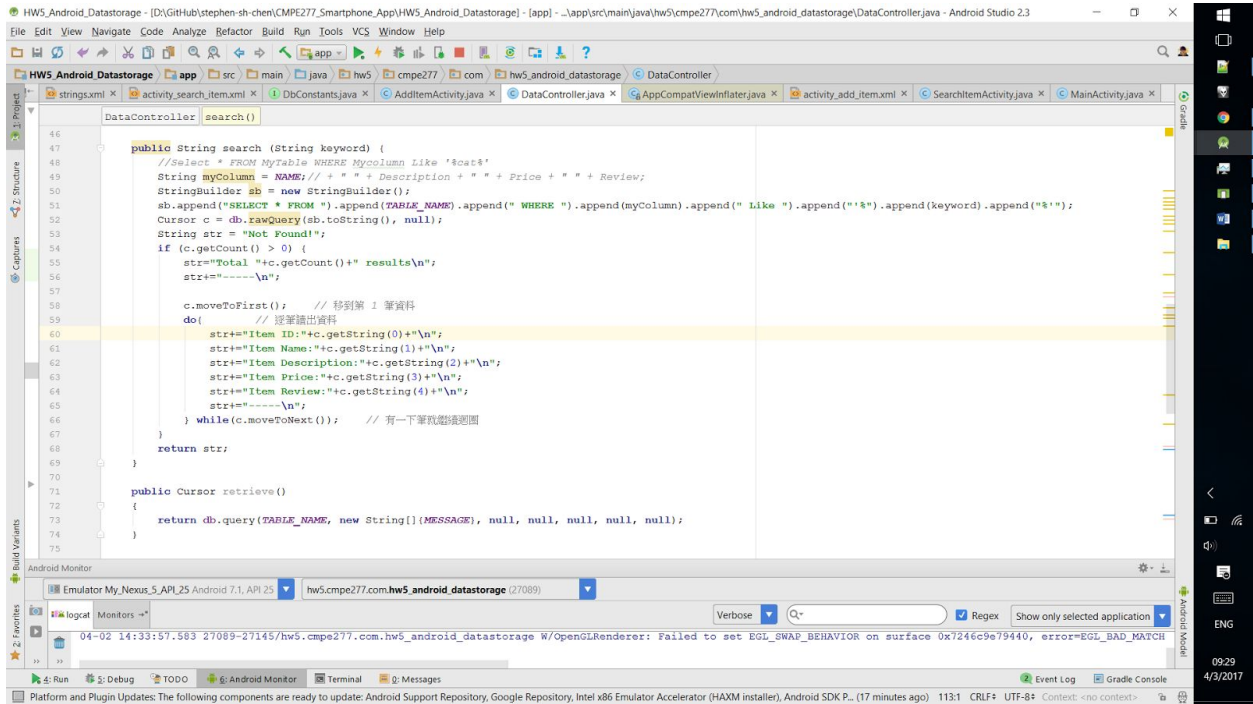
### 3. Search Item Activity

Here we enter the searching keyword “Apple” to query all the results from database which contain this keyword. As we can see from the screenshots, there are three results, the first one is the existing item and the last two items are what we just added.





The main logic of the search function.



```
46 public String search (String keyword) {
47     //select * FROM MyTable WHERE MyColumn Like '%keyword%'
48     String myColumn = NAME; // + " " + Description + " " + Price + " " + Review;
49     StringBuilder sb = new StringBuilder();
50     sb.append("SELECT * FROM ").append(TABLE_NAME).append(" WHERE ").append(myColumn).append(" Like ").append("%").append(keyword).append("%");
51     Cursor c = db.rawQuery(sb.toString(), null);
52     String str = "Not Found!";
53     if (c.getCount() > 0) {
54         str="Total "+c.getCount()+" results\n";
55         str+="-----\n";
56
57         c.moveToFirst(); // 移到第 1 筆資料
58         // 逐筆讀出資料
59         do{
60             str+="Item ID:"+c.getString(0)+"\n";
61             str+="Item Name:"+c.getString(1)+"\n";
62             str+="Item Description:"+c.getString(2)+"\n";
63             str+="Item Price:"+c.getString(3)+"\n";
64             str+="Item Review:"+c.getString(4)+"\n";
65             str+="-----\n";
66         } while (c.moveToNext()); // 有下一筆就繼續迴圈
67     }
68     return str;
69 }
70
71 public Cursor retrieve()
72 {
73     return db.query(TABLE_NAME, new String[] {MESSAGE}, null, null, null, null, null);
74 }
75 }
```

Android Monitor

Emulator My\_Nexus\_5\_API\_25 Android 7.1, API 25 | hw5.cmpe277.com.hw5\_android\_datastorage (27089)

logcat | Monitors | Verbose | Q\* | Regex | Show only selected application

04-02 14:33:57.583 27089-27145/hw5.cmpe277.com.hw5\_android\_datastorage W/OpenGLESRenderer: Failed to set EGL\_SWAP\_BEHAVIOR on surface 0x7246c9e79440, error=EGL\_BAD\_MATCH

4: Run | Debug | TODO | Android Monitor | Terminal | Messages | Event Log | Gradle Console

Platform and Plugin Updates: The following components are ready to update: Android Support Repository, Google Repository, Intel x86 Emulator Accelerator (HAXM installer), Android SDK P... (17 minutes ago) 113.1 CRLF UTF-8 Context: <no context>

09:29 4/3/2017