



Stress Test

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Validasi Perangkat Lunak Mobile (CRI-562)
Pertemuan 7

Dosen Pengampu: Harry Kurniawan
Prodi Teknik Informatika - Fakultas Ilmu Komputer

Diskusi

- Tugas week 8
 - a) Tidak perlu perbaikan aplikasi
 - b) Perlu perbaikan aplikasi, tidak ada error
 - c) Perlu perbaikan aplikasi, masih error
- Bersedia membantu?

Stress Test

Stress Test

Stress Test:

Sebuah proses pengujian yang dirancang untuk
mendorong aplikasi mencapai *breaking point*

Stress Test

Tujuannya:

- **Memunculkan masalah** yang mungkin tidak muncul dalam kondisi normal
- Menentukan **ketahanan** perangkat lunak
- Memastikan sistem gagal dan pulih dengan cara **yang dapat diterima**.

Stress Test

Kapan melakukan stress test?

- **Sebelum rilis** ke publik
- Ketika aplikasi diimplementasikan kalkulasi dengan **iterasi tinggi**
- Pada proses **Hardening**

Stress Test

```
1  #include <iostream>
2
3  using namespace std;
4  int main()
5  {
6  int num,i;
7  cout << "Enter a number\t";
8  cin>> num;
9  i=0;
10 do
11 {
12 i++;
13 cout<<i<<"\n";
14 }while(num>=i);
15 return 0;
16 }
17
```

Iterasi pada java

Stress Test

Kapan melakukan stress test?

- Peak Season

- eCommerce : Harbolnas
- Tiket : Libur Panjang/Lebaran/Natal
- Pajak : Deadline SPPT
- Universitas : Pengisian KRS

Stress Test

Apa keuntungan stress test?

- Pada dasarnya adalah bagian dari manajemen risiko
- Tes stres membantu menemukan :
 - Sinkronisasi dan penjadwalan bug
 - Masalah interlock (koneksi antar modul)
 - Masalah prioritas
 - Masalah memori
 - Kehilangan data & corrupt

Stress Test

Bagaimana melakukan stress test?

1. Sambungkan HP dengan PC
 - USB driver terinstall PC
 - Developer mode aktif
 - Gunakan kabel data berkualitas
 - Koneksi USB mode Media Device (MTP)
 - Aplikasi yang diuji terinstall di HP

Stress Test

Bagaimana melakukan stress test?

2. Buka Command Promp (Windows) atau Terminal (Linux)
3. Pindah ke direktori Android SDK di PC, contoh:

```
Cd Users\Admin\Documents\Android_SDK\platform-tools\
```

```
D:
```

```
D:cd Android_SDK\platform-tools\
```

Stress Test

Bagaimana melakukan stress test?

4. Tentukan nama asli aplikasi di
AndroidManifest.XML

```
<application  
android:name="com.xxxxxxxxxx.xxxxxxxxxx"
```

Contoh:

```
<application  
android:name="com.google.android.apps.translate.Translate  
Application"
```

Stress Test

Bagaimana melakukan stress test?

5. Jalankan android monkey dengan format sbb:

```
adb shell monkey -p <nama aplikasi> -v 3000
```

Stress Test

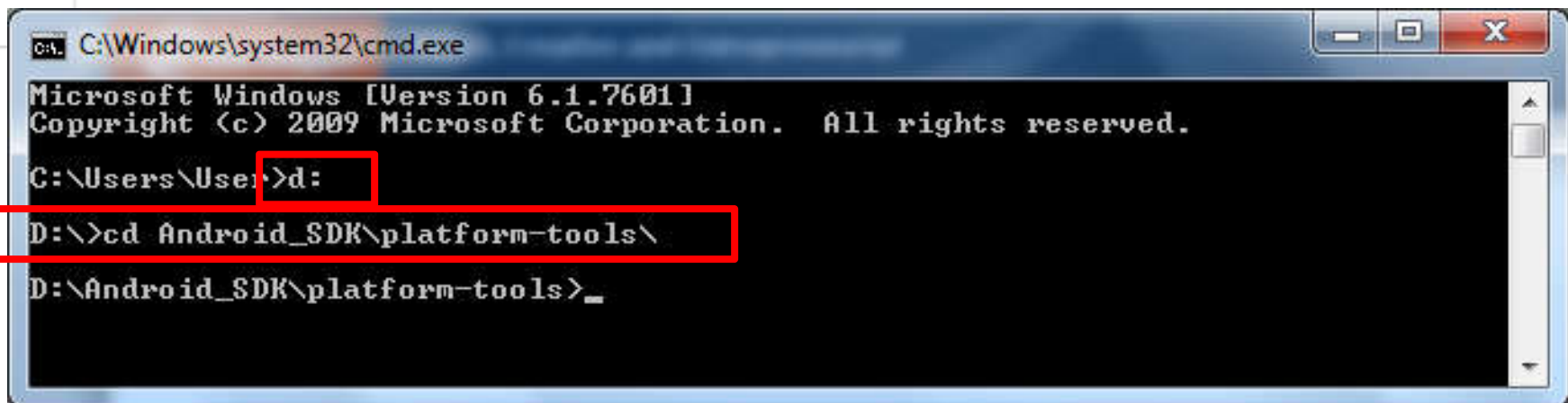
Contoh:

- Direktori: `D:\Android_SDK\platform-tools\`
- Aplikasi:
`com.google.android.apps.translate.TranslateA
pplication`

Stress Test

Contoh:

- Pindah direktori



A screenshot of a Windows Command Prompt window. The title bar reads "C:\Windows\system32\cmd.exe". The window content shows the following text: "Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved. C:\Users\User>d: D:\>cd Android_SDK\platform-tools\ D:\Android_SDK\platform-tools>_". Red boxes highlight the "d:" command and the "cd Android_SDK\platform-tools\" command.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\User>d:
D:\>cd Android_SDK\platform-tools\
D:\Android_SDK\platform-tools>_
```

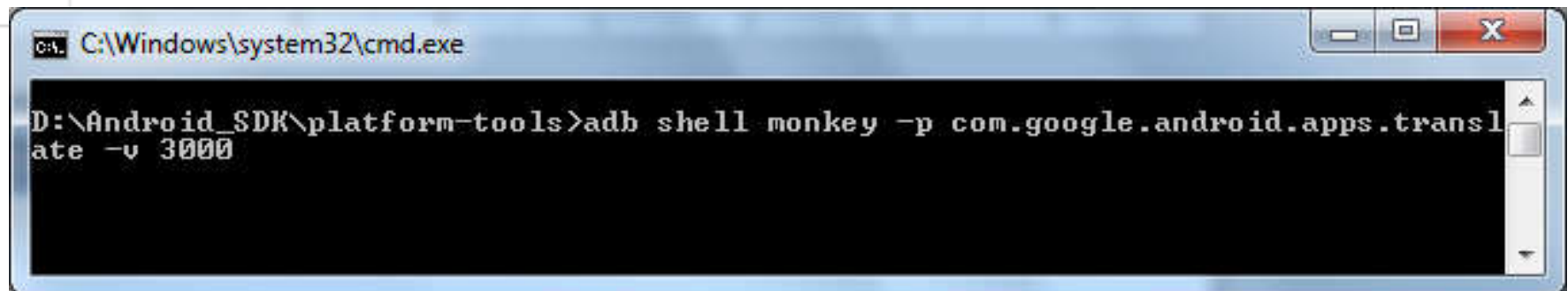
D:

D:cd Android_SDK\platform-tools\

Stress Test

Contoh:

- Jalankan monke



```
C:\Windows\system32\cmd.exe
D:\Android_SDK\platform-tools>adb shell monkey -p com.google.android.apps.transl
ate -v 3000
```

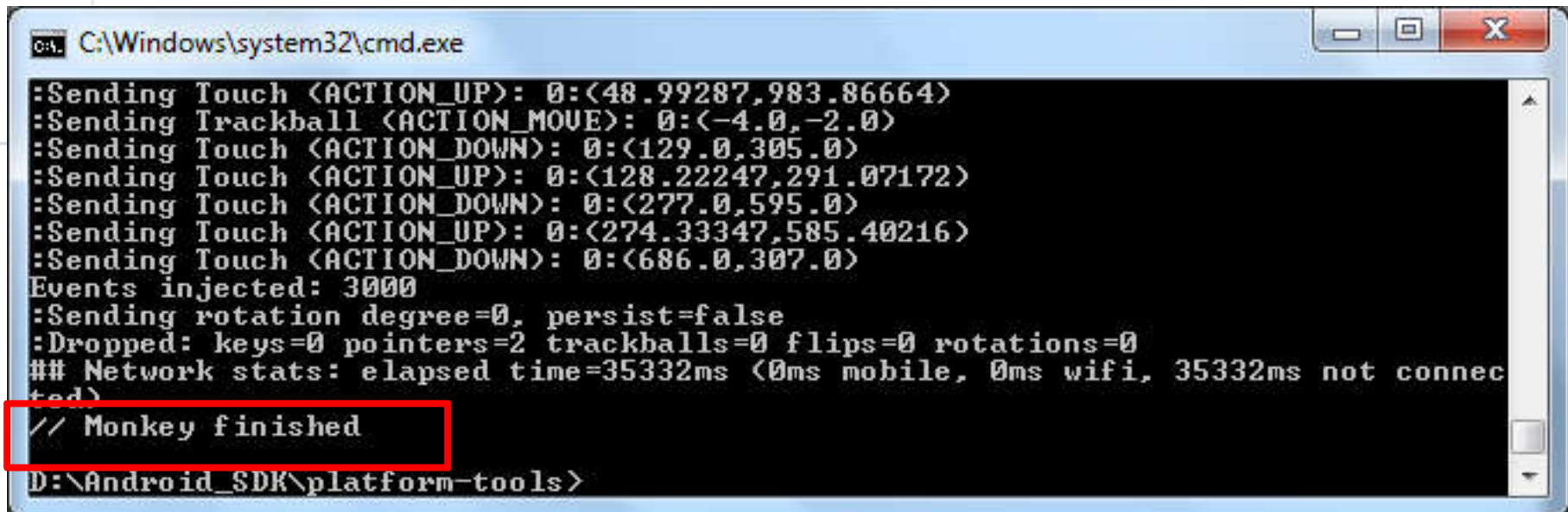

Stress Test

```

C:\Windows\system32\cmd.exe
// Sending event #2000
// [calendar_time:2017-11-22 14:01:56.339 system_uptime:91566451
// Sending event #2000
:Sending Trackball (ACTION_MOVE): 0:(-1.0,2.0)
:Sending Touch (ACTION_DOWN): 0:(116.0,163.0)
:Sending Touch (ACTION_UP): 0:(111.221664,180.3065)
:Sending Touch (ACTION_DOWN): 0:(492.0,1071.0)
:Sending Touch (ACTION_UP): 0:(457.60254,995.50085)
:Sending Touch (ACTION_DOWN): 0:(364.0,805.0)
:Sending Touch (ACTION_UP): 0:(340.20944,702.5162)
:Sending Touch (ACTION_DOWN): 0:(127.0,332.0)
:Sending Touch (ACTION_UP): 0:(131.61993,345.8138)
:Sending Flip keyboardOpen=true
:Sending Touch (ACTION_DOWN): 0:(608.0,293.0)
:Sending Touch (ACTION_UP): 0:(609.7795,298.8839)
:Sending Touch (ACTION_DOWN): 0:(574.0,65.0)
:Sending Touch (ACTION_UP): 0:(573.05884,62.26186)
:Sending Trackball (ACTION_MOVE): 0:(2.0,4.0)
// activityResuming(com.google.android.apps.translate)
:Sending Touch (ACTION_DOWN): 0:(661.0,464.0)
:Sending Touch (ACTION_UP): 0:(645.558,460.00146)
// Allowing start of Intent < cmp=com.google.android.apps.translate/.offline
.OfflineDialogActivity > in package com.google.android.apps.translate
:Sending Touch (ACTION_DOWN): 0:(227.0,540.0)
:Sending Touch (ACTION_UP): 0:(218.37311,544.44214)
    
```

Stress Test

- Aplikasi berhasil lolos stress test



```
C:\Windows\system32\cmd.exe
:Sending Touch <ACTION_UP>: 0:<48.99287,983.86664>
:Sending Trackball <ACTION_MOVE>: 0:<-4.0,-2.0>
:Sending Touch <ACTION_DOWN>: 0:<129.0,305.0>
:Sending Touch <ACTION_UP>: 0:<128.22247,291.07172>
:Sending Touch <ACTION_DOWN>: 0:<277.0,595.0>
:Sending Touch <ACTION_UP>: 0:<274.33347,585.40216>
:Sending Touch <ACTION_DOWN>: 0:<686.0,307.0>
Events injected: 3000
:Sending rotation degree=0, persist=false
:Dropped: keys=0 pointers=2 trackballs=0 flips=0 rotations=0
## Network stats: elapsed time=35332ms (0ms mobile, 0ms wifi, 35332ms not connected)
// Monkey finished
D:\Android_SDK\platform-tools>
```

Stress Test

- Aplikasi mengalami Crash

```

C:\Windows\system32\cmd.exe
at android.support.v4.content.b.a(SourceFile:34)
at android.support.v4.content.g.call(SourceFile:7)
at java.util.concurrent.FutureTask.run(FutureTask.java:237)
... 3 more
** Monkey aborted due to error.
Events injected: 1130
:Sending rotation degree=0, persist=false
:Dropped: keys=0 pointers=0 trackballs=0 flips=0 rotations=0
## Network stats: elapsed time=21180ms (0ms mobile, 0ms wifi, 21180ms not connec
ted)
** System appears to have crashed at event 1130 of 3000 using seed 1511419097507
D:\Android_SDK\platform-tools>
  
```

Tugas

- Lakukan Stress Test pada 2 aplikasi anda, kemudian ditulis di laporan yang telah ada (tidak ada format khusus)
- Deadline: 28 November 2017
- Judul e-mail: Week 9 CRI-562

Sekian