

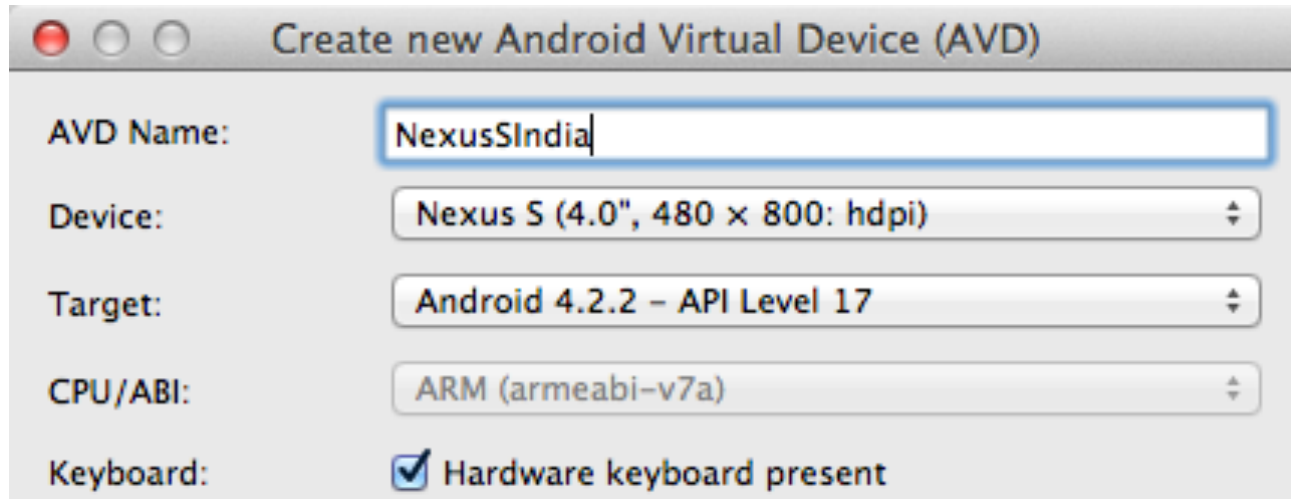


Welcome, स्वागताह

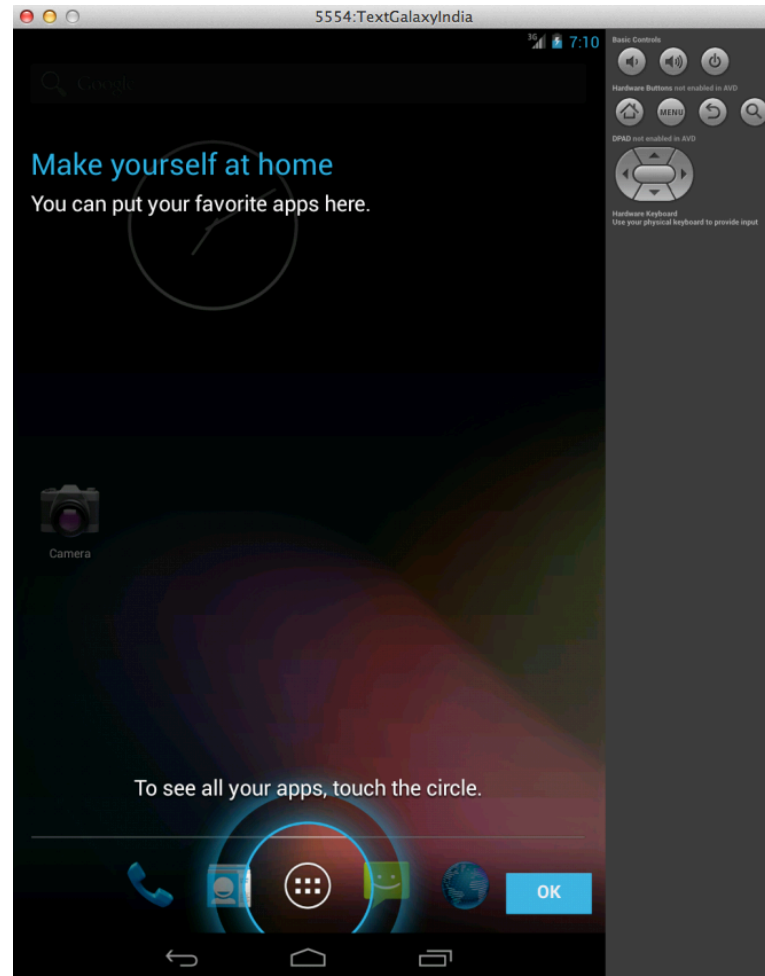
AITI IIT Bombay Class 2013

Lecture 2

Make a Nexus S AVD (this should load faster)



Start your AVD (These take a while, *sigh*)



Internet Access

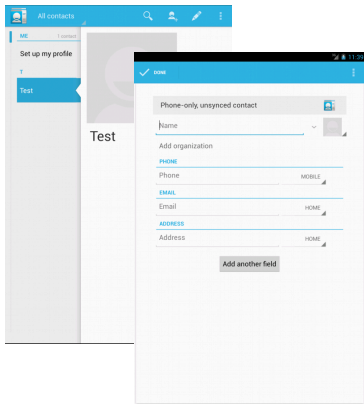
- Please see the printouts for each OS

Agenda

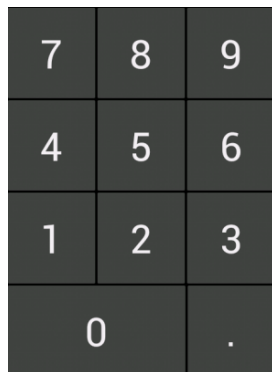
- Activities
- Buttons
- Events
- Sharing data between activities

GUI's Galore!!

- Activities, buttons and events help create a richer, more intuitive, less error-prone experience for the user. (and a faster experience if you do it right)



Activities



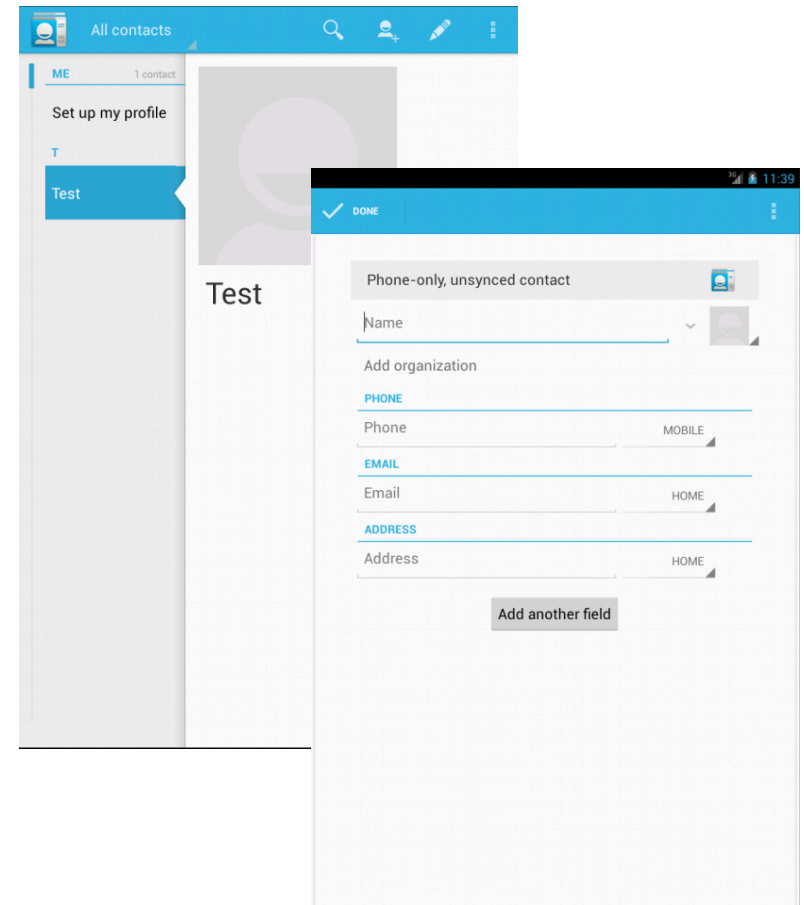
Buttons



Events

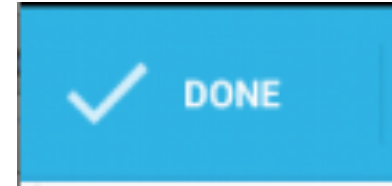
Activities

- Activities are different screens that represent “activities” for the user to complete
- Activities can contain buttons, strings, etc
- Graphical Layout data: activity_name.xml
- Behavior Programming: activity_name.java (source folder)
- Must be listed on the Android Manifest to show up in your app!!



Buttons

- Buttons are used by the user to perform a specific action
- Buttons respond to events, have event listeners



7	8	9
4	5	6
1	2	3
0		.

Events

- Events occur when the user interacts with the phone and its sensors in the physical world
- The operating systems translates this into “events” that you can use to create behavior
- Buttons and activities have events, and event listeners with associated functions that determine your app’s response / behavior.



The Old Days: Type Interfaces

- What are you supposed to do next???
- Need to know the commands ahead of time
- Doesn't work with typos.
- Requires lots of effort on the part of the user!

- <headache>

```
Displays a list of files and subdirectories in a directory.

DIR [drive:][path][filename] [/P] [/W] [/A[:attributes]] [/O[:sortord]]
  [/S] [/B] [/L] [/C[H]]

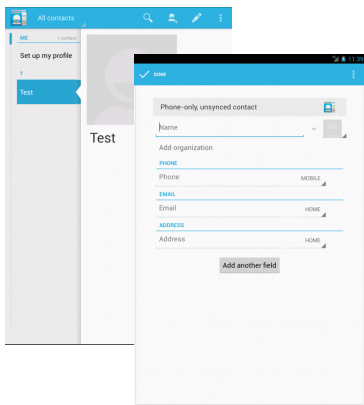
[drive:][path][filename] Specifies drive, directory, and/or files to list.
/P Pauses after each screenful of information.
/W Uses wide list format.
/A Displays files with specified attributes.
attribs D Directories R Read-only files H Hidden files
        S System files A Files ready to archive - Prefix meaning "not"
/O List by files in sorted order.
sortord N By name (alphabetic) S By size (smallest first)
        E By extension (alphabetic) D By date & time (earliest first)
        G Group directories first - Prefix to reverse order
        C By compression ratio (smallest first)
/S Displays files in specified directory and all subdirectories.
/B Uses bare format (no heading information or summary).
/L Uses lowercase.
/C[H] Displays file compression ratio; /CH uses host allocation unit size.

Switches may be preset in the DIRCMD environment variable. Override
preset switches by prefixing any switch with - (hyphen)--for example, /-W.

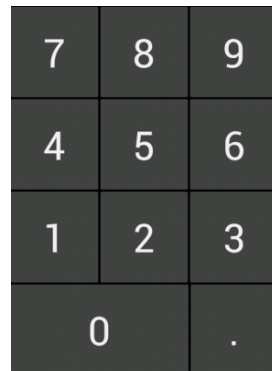
C:\>_
```

GUI's Galore!!

- Pick up and go!!
- No manual required!!, Don't make your users memorize anything
- Keep it simple -> Keep your users happy -> keep making \$\$!!



Activities



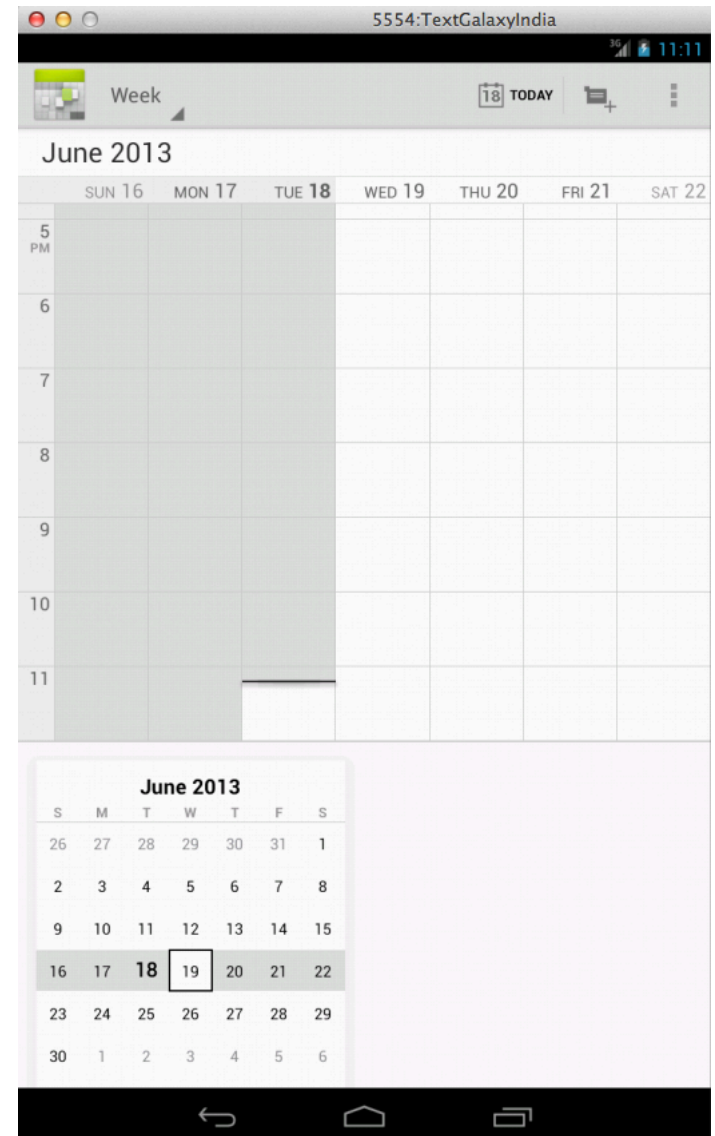
Buttons



Events

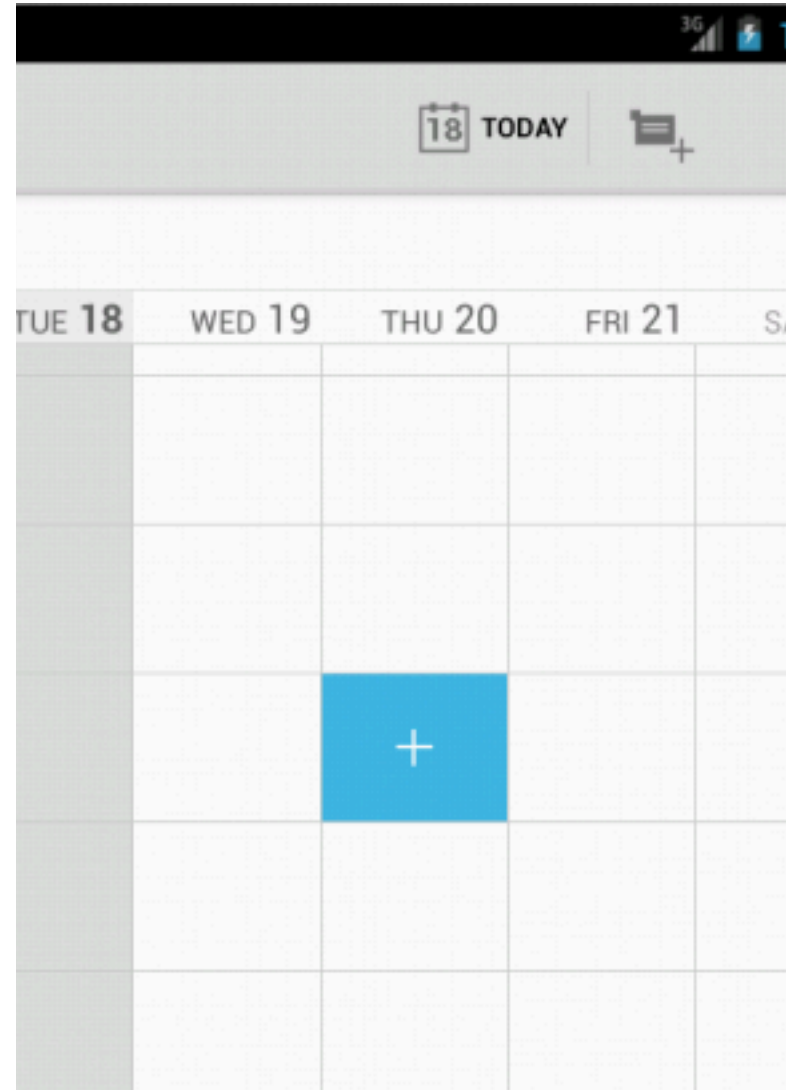
Fun with Calendar

- Open the calendar app on your AVD



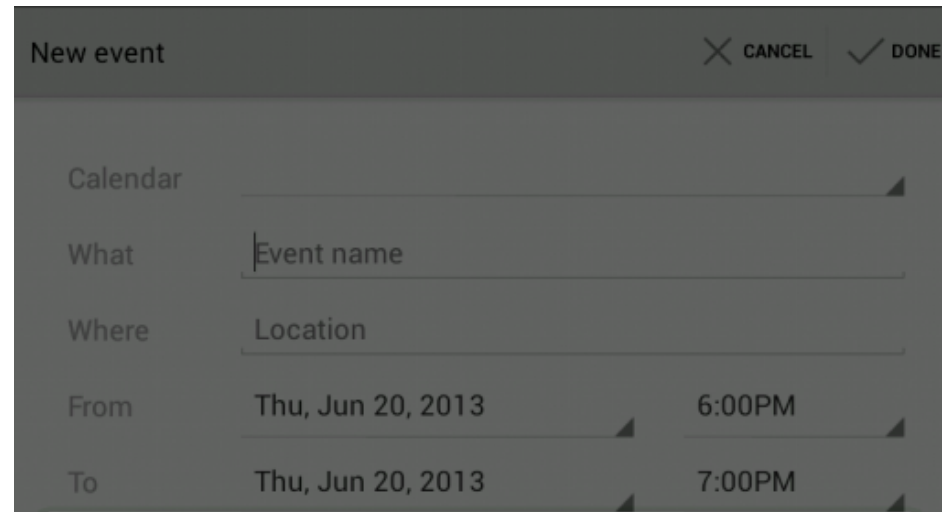
Fun with Calendar

- Hover over one of the days and click the when you see the plus button to add an event
- Or, click the + button next to "Today"



Adding a new event

- We get a new screen to add a new event
- Uh oh, we don't have an account, click the back button

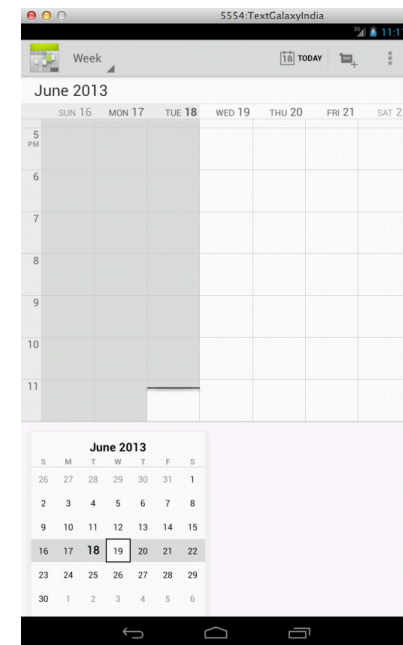
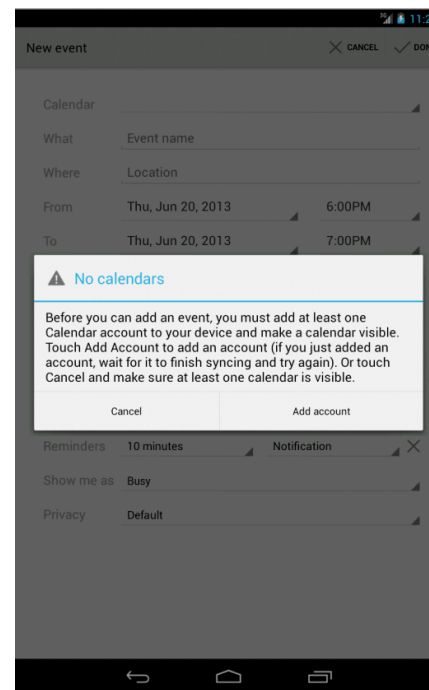
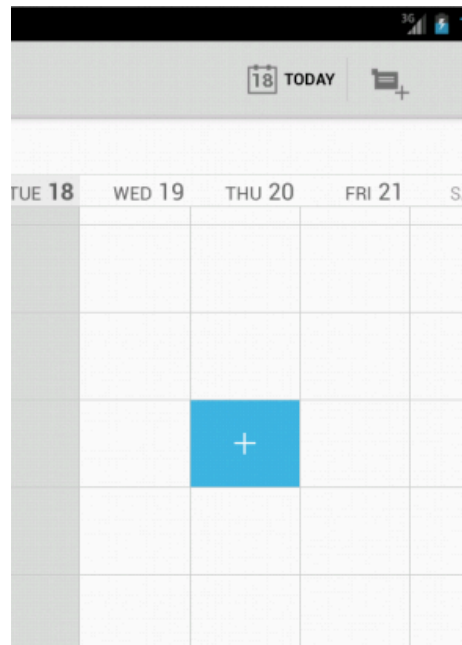
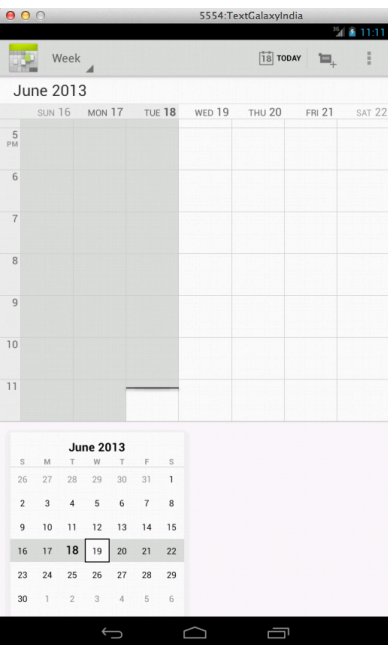


The screenshot shows a 'New event' form with the following fields:

Field	Value
Calendar	[Dropdown arrow]
What	Event name
Where	Location
From	Thu, Jun 20, 2013 6:00PM
To	Thu, Jun 20, 2013 7:00PM

At the top right of the form, there are two buttons: 'CANCEL' with a close icon and 'DONE' with a checkmark icon.

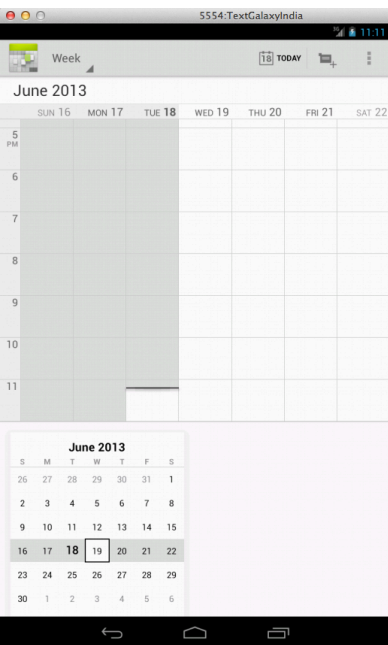
What was required for this sequence?



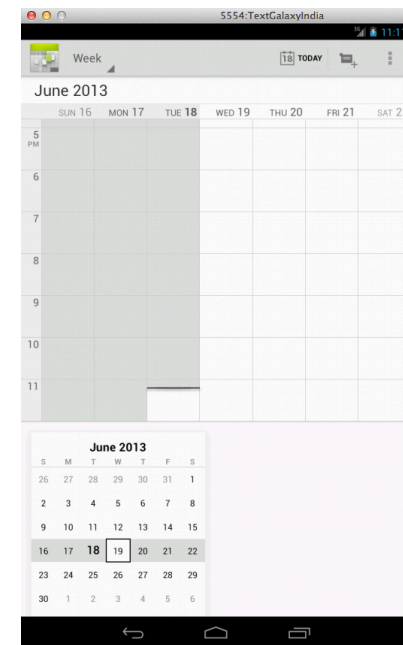
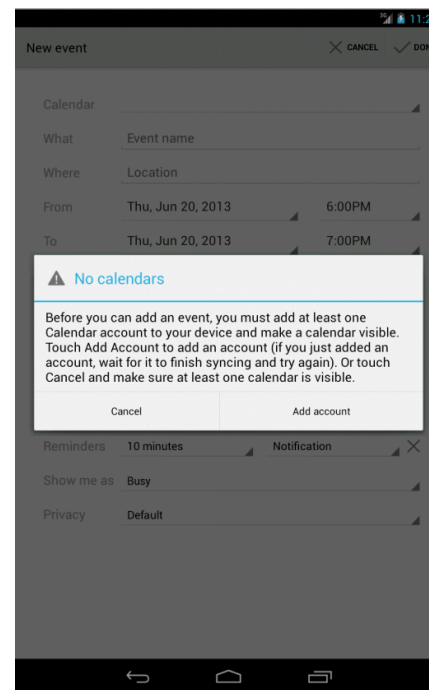
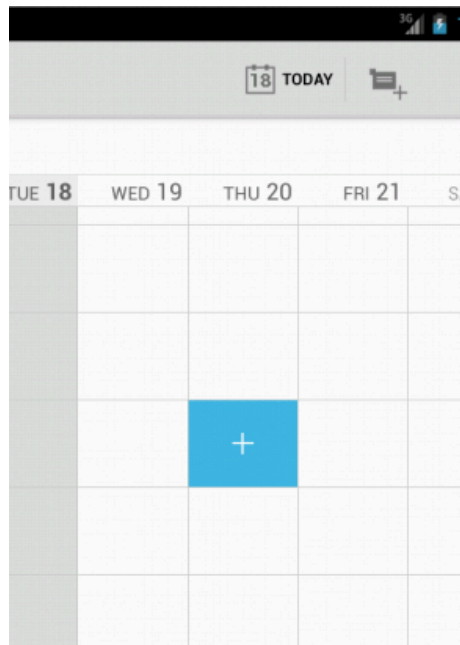
How many, Activities, Buttons, Events, were used?

What was required for this sequence?

Activity 1



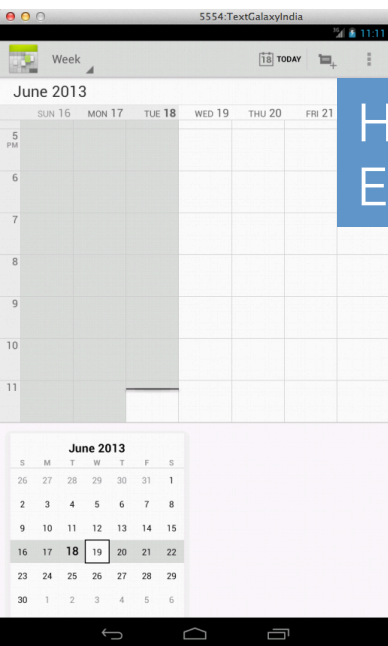
Activity 2



- 2 Activities

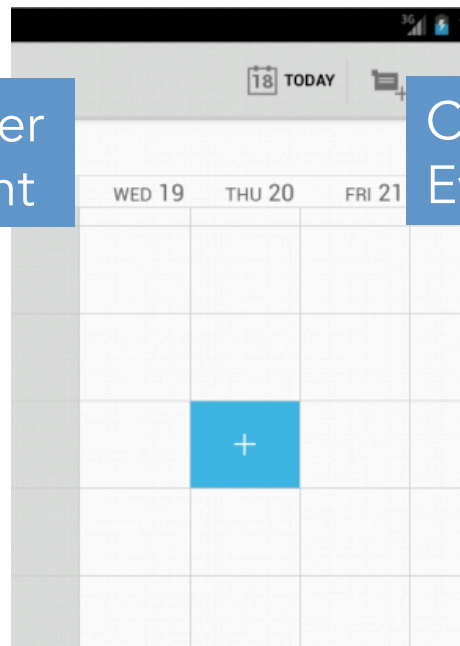
What was required for this sequence?

Activity 1

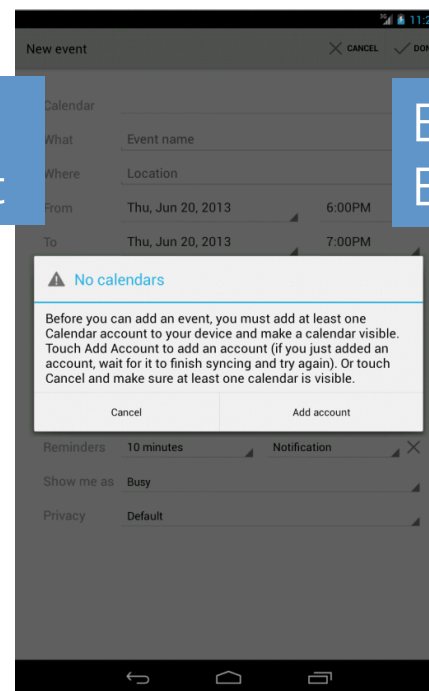


Hover
Event

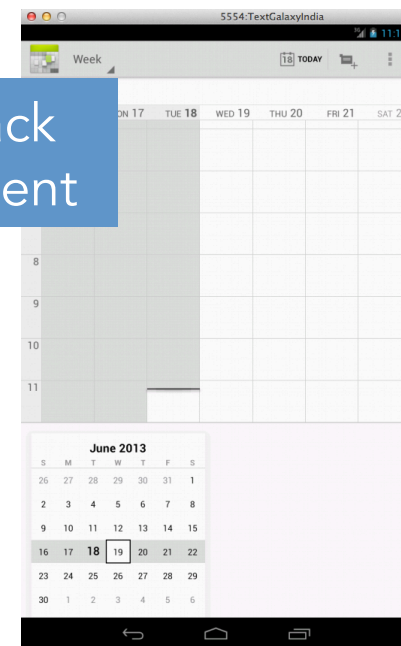
Activity 2



Click
Event



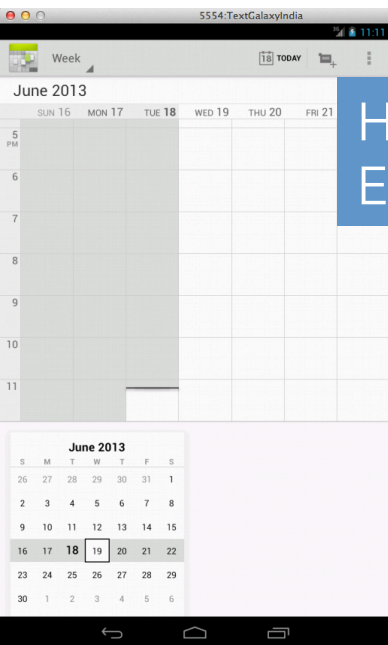
Back
Event



- 3 Events

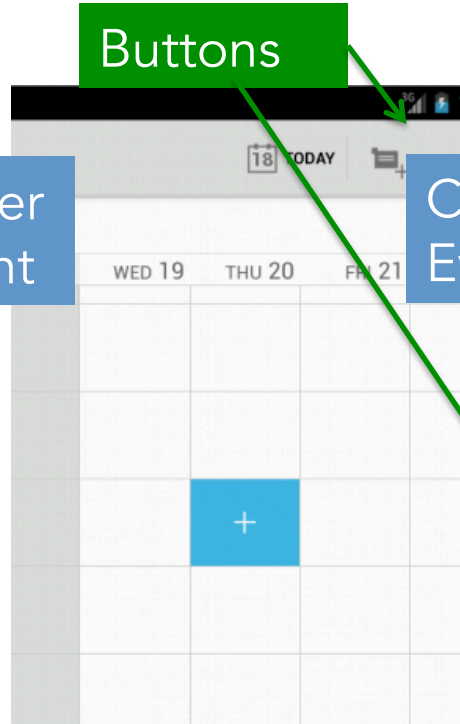
What was required for this sequence?

Activity 1



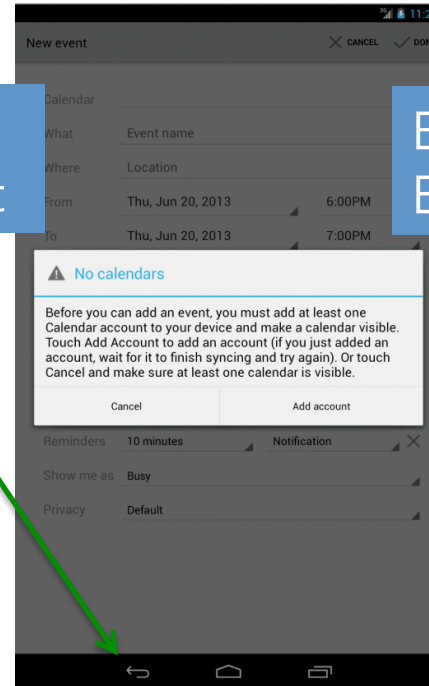
Hover
Event

Buttons

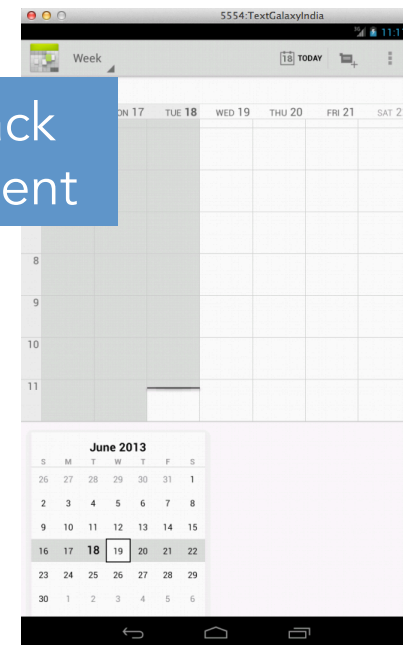


Click
Event

Activity 2



Back
Event



- 2 Buttons

Complete the Android Tutorials

Building a Simple user interface

- <http://developer.android.com/training/basics/firstapp/building-ui.html>

Starting another activity

- <http://developer.android.com/training/basics/firstapp/starting-activity.html>