



JÖNKÖPING UNIVERSITY

School of Engineering

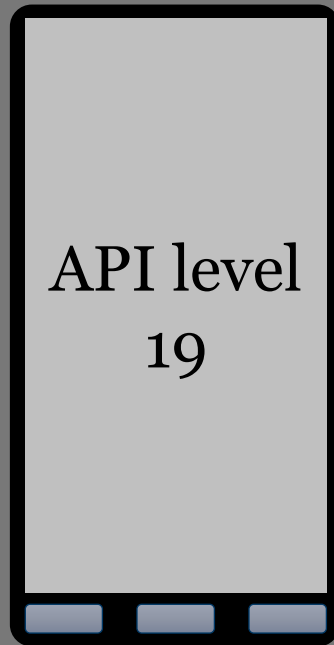
ANDROID BACKWARD COMPATIBLE

Peter Larsson-Green

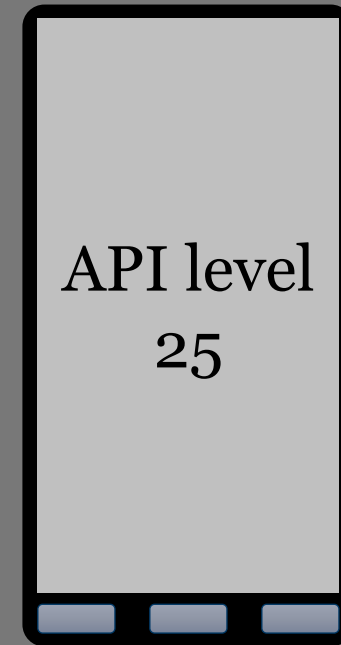
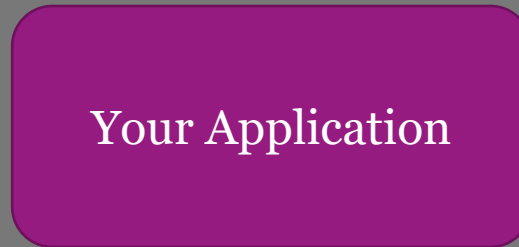
Jönköping University

Spring 2019

THE PROBLEM



Feature X added
in API level 22



WHAT ARE THESE NEW FEATURES?

- New classes we can use.
 - `Fragment` - Added in API level 11, deprecated in 28
 - `JobScheduler` - Added in API level 21
- New methods we can use in existing classes.
 - `Activity.getFragmentManager()` - Added in API level 11, deprecated in 28
 - `Activity.setActionBar()` - Added in API level 21

A SOLUTION

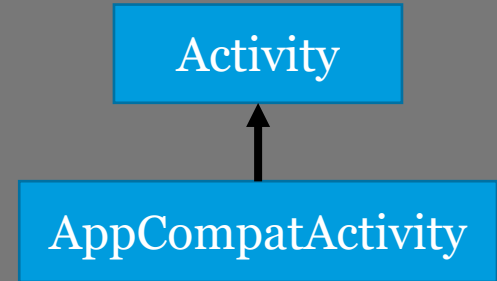
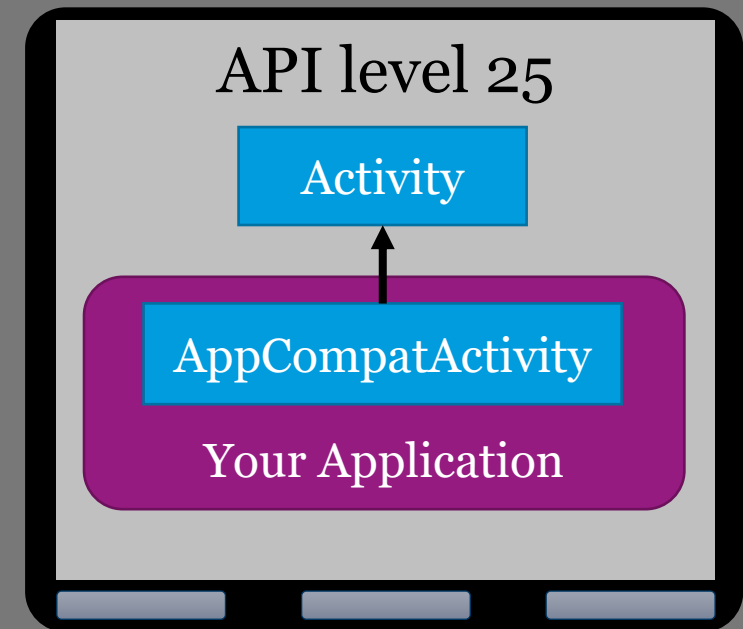
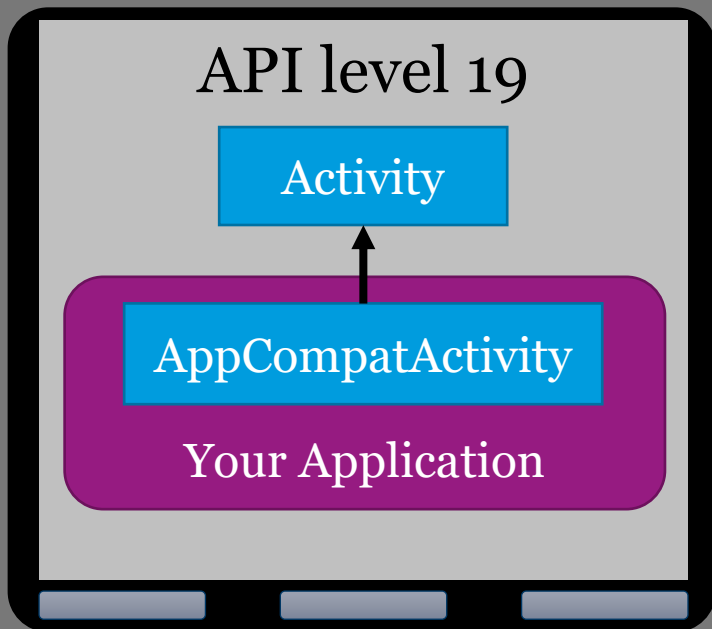
Check version at runtime.

```
if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.LOLLIPOP) {  
    // Use feature added in API level 21 😊  
}  
else {  
    // Can't use the feature added in API level 21 😞  
}
```

ANOTHER SOLUTION

Use a library doing this for you.

- The Android Support Library.
 - Now part of AndroidX.



STAYING BACKWARD COMPATIBLE

Always use classes/methods from the support library instead from Android.

- Don't use `Activity`, use `AppCompatActivity`.
- Don't use `Fragment` from `Android`, use `Fragment` from support library.
- Don't use `getFragmentManager()`, use `getSupportFragmentManager()`.
- Don't use `setActionBar()`, use `setSupportActionBar()`.