



JÖNKÖPING UNIVERSITY

School of Engineering

ANDROID PERMISSIONS

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PERMISSIONS

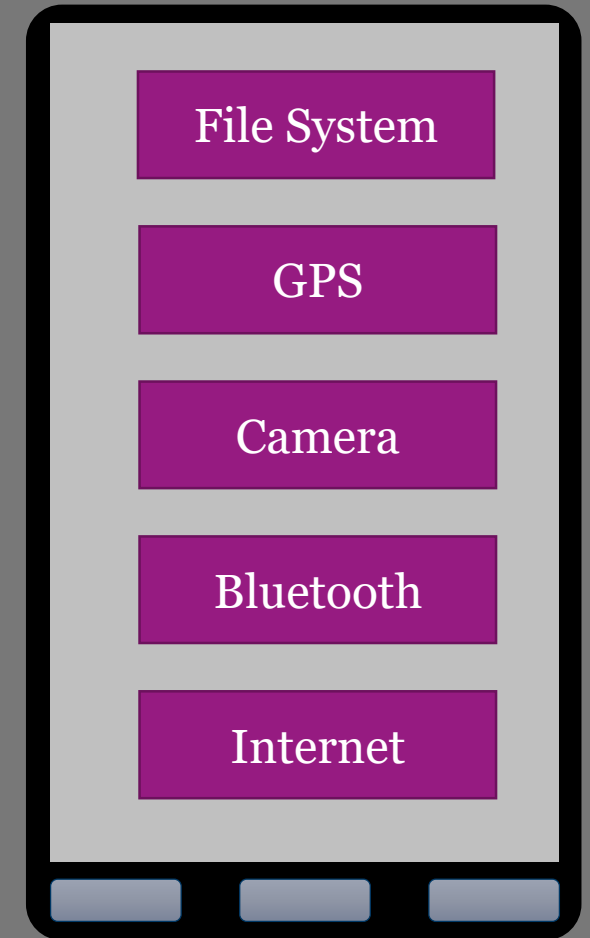
Some features are protected by permissions.

Before we can use the feature, we need the user's permission to use it.

Categories of permissions:

- Normal permissions
- Dangerous permissions

Permissions are grouped.



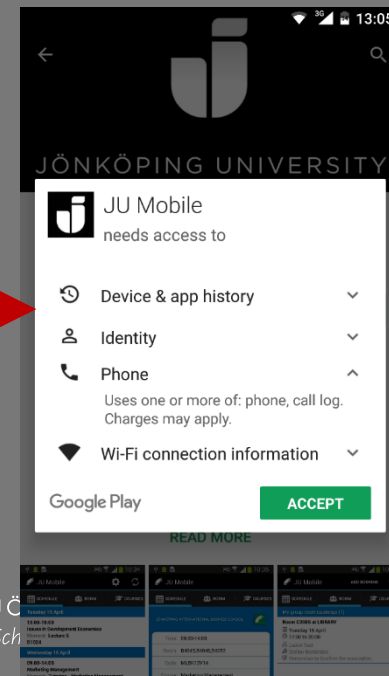
OBTAINING PERMISSION

The old way:

1. List required permission in `AndroidManifest.xml`.
2. User grants the application these permission at installation time.

User needs to grant permission to use optional features ☹️

```
<manifest
  package="se.ju.larpet.myapplication"
  xmlns:android="http://schemas.android.com/apk/res/android">
    <uses-permission android:name="the.permission" />
    <uses-permission android:name="the.other.permission" />
    <application android:label="My Cool App">...</application>
</manifest>
```



OBTAINING PERMISSION

The new way (Android 6, API level 23):

1. List required permission in `AndroidManifest.xml`.
2. User grants the application permissions at runtime.
 - We developers need to write extra code to make this happen...
 - We developers need to write extra code to handle the cases where we don't get the permissions...

User only needs to grant permission for optional features if she uses them 😊

OBTAINING PERMISSION AT RUNTIME

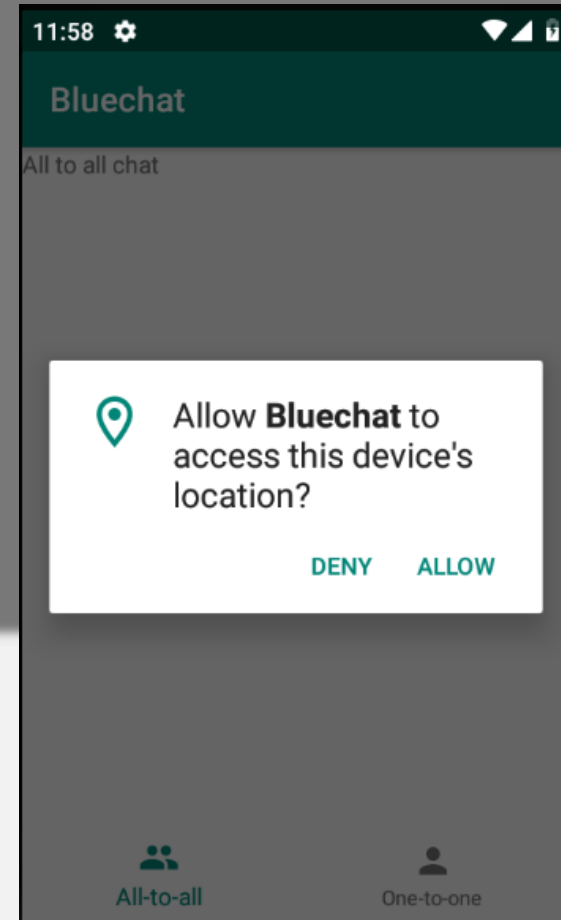
aFragment

```
anActivity.requestPermissions(  
    new String[]{"permission1", "permission2"},  
    123  
);
```

```
ActivityCompat.requestPermissions(  
    theActivity,  
    new String[]{"permission1", "permission2"},  
    123  
);
```

```
@Override  
public void onRequestPermissionsResult(  
    int requestCode, String permissions[], int[] grantResults  
) {  
    // ...  
}
```

PackageManager.PERMISSION_GRANTED
PackageManager.PERMISSION_DENIED



CHECKING PERMISSION AT RUNTIME

```
int permStat = aContext.checkSelfPermission("the.permission");  
if(permStat == PackageManager.PERMISSION_GRANTED) {  
    // We already have the permission 😊  
}else{  
    // We need to ask for the permission.  
}
```

```
int permStat = ContextCompat.checkSelfPermission(aContext, "the.permission");  
if(permStat == PackageManager.PERMISSION_GRANTED) {  
    // We already have the permission 😊  
}else{  
    // We need to ask for the permission.  
}
```