



JÖNKÖPING UNIVERSITY

*School of Engineering*

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# ANDROID NOTIFICATIONS

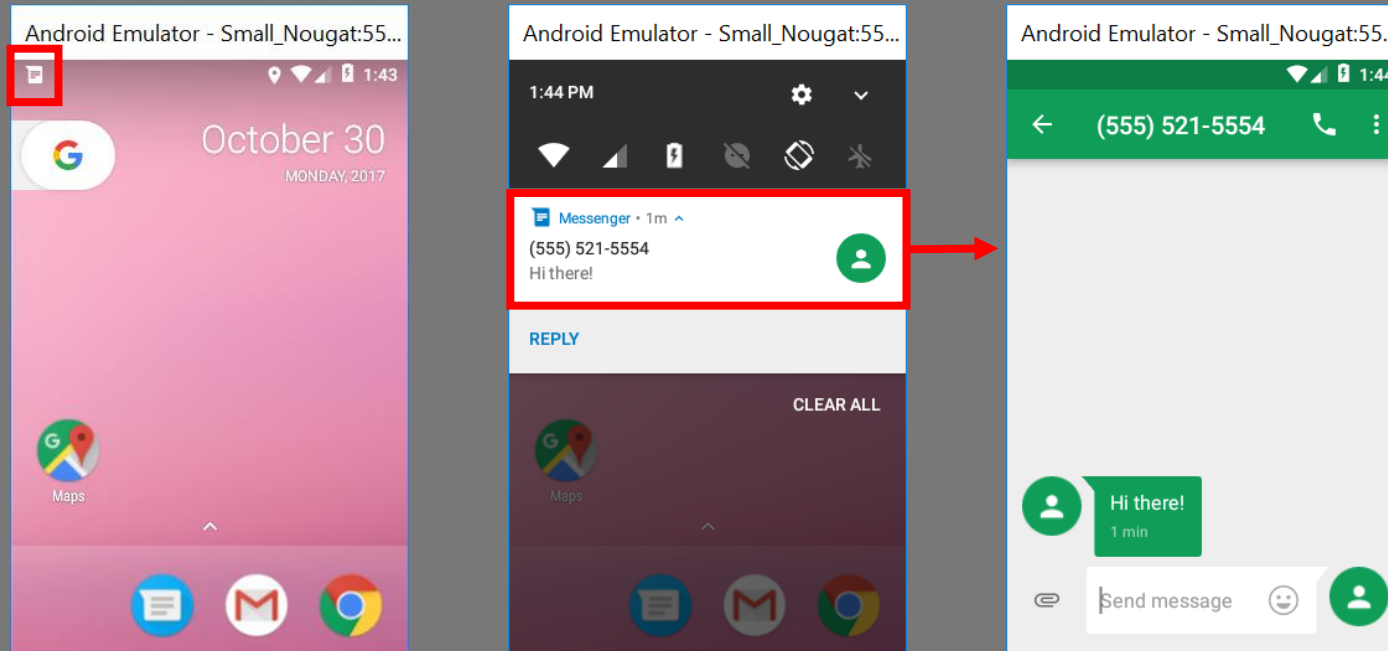
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# NOTIFICATIONS

Unlike activities, services have no graphical user interface.



# NOTIFICATION CHANNELS

Introduced in API level 26.

```
if (Build.VERSION_CODES.O <= Build.VERSION.SDK_INT) {  
    NotificationChannel channel = new NotificationChannel(  
        "MESSAGE_FROM_CONTACT",  
        "New message from contact",  
        NotificationManager.IMPORTANCE_HIGH  
    );  
    channel.setDescription("Used when receiving a new message from a contact.");  
    NotificationManager notificationManager = aContext.getSystemService(  
        NotificationManager.class  
    );  
    notificationManager.createNotificationChannel(channel);  
}
```

```
channel.enableLights(...);  
channel.enableVibration(...);  
channel.setSound(...);
```

# CREATING NOTIFICATIONS

```
NotificationCompat.Builder builder = new NotificationCompat.Builder(  
    aContext,  
    "MESSAGE_FROM_CONTACT"  
);  
builder.setSmallIcon(R.drawable.the_icon);  
builder.setContentTitle("New message!");  
builder.setContentText("You've got a new message from Alice.");  
Notification notification = builder.build();  
NotificationManagerCompat nfManager = NotificationManagerCompat.from(aContext);  
int notificationLocalId = 1;  
nfManager.notify(notificationLocalId, notification);
```

# VISIBILITIES

```
channel.setVisibility(Notification.VISIBILITY_XXX);
```



VISIBILITY\_PUBLIC  
VISIBILITY\_PRIVATE  
VISIBILITY\_SECRET

# INTENT VS PENDING INTENT

`Intent` = request to be handled by an application component.

- You can always start your own applications components.

`PendingIntent` = request to be handled by an application component AND permissions to start that component.

1. You create a `PendingIntent` specifying the app component to be started.
2. You send the `Pending Intent` to another application.
3. The other application starts your app component using the `PendingIntent`.

# NOTIFICATIONS

FLAG\_ONE\_SHOT  
FLAG\_CANCEL\_CURRENT

```
builder.setContentIntent (  
    PendingIntent.getActivity (aContext, requestCode,  
                               theIntent, PendingIntent.FLAG_XXX)  
);  
builder.setAutoCancel (true);  
builder.deleteIntent (  
    PendingIntent.getActivity (aContext, requestCode,  
                               theIntent, PendingIntent.FLAG_XXX)  
);
```