**Broadcast Receiver**

* Android apps can send or receive broadcast messages from the Android system and other Android apps. These broadcasts are sent when an event occurs. such as incoming calls, airplane mode message, low battery message or screen turned off etc.
* Generally, [Intents](https://www.tutlane.com/tutorial/android/android-intents-implicit-explicit) used to deliver broadcast events to other apps and Broadcast Receivers use status bar notifications to let the user know that broadcast event occurs.
* In android, Broadcast Receiver is implemented as a subclass of **BroadcastReceiver** and each broadcast is delivered as an [Intent](https://www.tutlane.com/tutorial/android/android-intents-implicit-explicit) object.

Apps can receive broadcasts in two ways :

1. **Static Broadcast Receivers :**These types of Receivers are declared in the manifest file and works even if the app is closed.

manifest-declared receivers :

1. Specify the [<receiver>](https://developer.android.com/guide/topics/manifest/receiver-element) element in your app's manifest.

<application>

<receiver android:name=".SampleBroadcastReceiver"

android:[**enabled**](https://developer.android.com/guide/topics/manifest/receiver-element#enabled)=["true" | "false"]  
          android:[**exported**](https://developer.android.com/guide/topics/manifest/receiver-element#exported)=["true" | "false"] >

 <intent-filter>  
   <action android:name="android.intent.action.BOOT\_COMPLETED"/>  
 </intent-filter>

</receiver>

</application>

1. Subclass [BroadcastReceiver](https://developer.android.com/reference/android/content/BroadcastReceiver) and implement [onReceive(Context, Intent)](https://developer.android.com/reference/android/content/BroadcastReceiver" \l "onReceive(android.content.Context,%20android.content.Intent)).

public class MainActivity extends BroadcastReceiver {  
    @Override  
    public void onReceive(Context context, Intent intent) {  
        Toast.makeText(context, log, Toast.LENGTH\_LONG).show();  
    }   
}

1. **Dynamic Broadcast Receivers :**These types of receivers work only if the app is active or minimized.

context-registered receivers :

1. In app's module-level build file, include version 1.9.0 or higher
2. Create an instance of [BroadcastReceiver](https://developer.android.com/reference/android/content/BroadcastReceiver):

BroadcastReceiver br = new MyBroadcastReceiver();

1. Create an instance of [IntentFilter](https://developer.android.com/reference/android/content/IntentFilter):

IntentFilter filter = new IntentFilter(APP\_SPECIFIC\_BROADCAST);

1. Choose whether the broadcast receiver should be exported and visible to other apps on the device
2. Register the receiver by calling [registerReceiver()](https://developer.android.com/reference/androidx/core/content/ContextCompat" \l "registerReceiver(android.content.Context,android.content.BroadcastReceiver,android.content.IntentFilter,int)):

ContextCompat.registerReceiver(context, br, filter, receiverFlags);

1. To stop receiving broadcasts, call

[unregisterReceiver(android.content.BroadcastReceiver)](https://developer.android.com/reference/android/content/Context" \l "unregisterReceiver(android.content.BroadcastReceiver))

Android provides three ways for apps to send broadcast :

| **Method** | **Description** |
| --- | --- |
| sendOrderedBroadcast(Intent, String) | This method is used to send broadcasts to one receiver at a time. |
| sendBroadcast(Intent) | This method is used to send broadcasts to all receivers in an undefined order. |
| LoadBroadcastManager.sendBroadcast | This method is used to send broadcasts to receivers that are in the same app as the sender. |