

ALMACENAMIENTO EN ANDROID

Programación multimedia y dispositivos móviles

ALMACENAMIENTO CLAVE-VALOR

SharedPreferences

ALMACENAMIENTO CLAVE-VALOR

- Permite almacenar valores en formato clave-valor, como en un diccionario.
- Se basa en objetos de tipo SharedPreferences
- Movido a una biblioteca externa en Android 10
- implementation 'androidx.preference:preference:1.2.0'

ESCRIBIR

- Obtener un objeto de preferencias
- Entrar en modo edición `edit()`;
- Introducir pares clave-valor
 - `putInt(key,value);`
 - `putLong(key,value);`
 - `putFloat(key,value);`
 - `putBoolean(key,value);`
 - `putString(key,value);`
 - `putStringSet(key,value);`
- Guardar los cambios `apply()`; Es asíncrono, no escribe inmediatamente.
- Todos los métodos son encadenables

ESCRIBIR

```
public static final String USER_NAME = "USER_NAME";  
public static final String ADS_CONSENT = "ADS_CONSENT";
```

...

```
preferences  
    .edit()  
    .putString(USER_NAME, "John Doe")  
    .putBoolean(ADS_CONSENT, true)  
    .apply();
```

LEER

- Obtener un objeto de preferencias
- Leer por clave
 - `getInt(key);`
 - `getLong(key);`
 - `getFloat(key);`
 - `getBoolean(key);`
 - `getString(key);`
 - `putStringSet(key,value);`

PREFERENCIAS PARA TODOS LOS GUSTOS

- Preferencias **globales** de la aplicación
 - `SharedPreferences appPreferences = PreferenceManager.getDefaultSharedPreferences(this);`
- Preferencias con nombre **compartidas** por actividades
 - `SharedPreferences namedPreferences =
this.getSharedPreferences(getString(R.string.NAMED_PREFERENCES_FILE),
Context.MODE_PRIVATE);`
- Preferencias **propias** de una actividad
 - `SharedPreferences preferences = this.getSharedPreferences(Context.MODE_PRIVATE);`

Emulator Nexus_5_API_33 Android 13, API 33

| Name | ... | Date | Size |
|--|-----|------------------|-------|
| > code_cache | dr | 2023-02-22 20:16 | 4 KB |
| ▼ shared_prefs | dr | 2023-02-22 20:16 | 4 KB |
| com.juanagui.pmdm.preferences.NAMED_PREFERENCES_FILE.xml | -rv | 2023-02-22 20:16 | 115 B |
| com.juanagui.pmdm.preferences_preferences.xml | -rv | 2023-02-22 20:16 | 117 B |
| MainActivity.xml | -rv | 2023-02-22 20:16 | 116 B |
| SecondaryActivity.xml | -rv | 2023-02-22 20:16 | 116 B |
| > com.juanagui.sdkversions | dr | 2023-01-18 19:58 | 4 KB |
| > local | dr | 2023-01-18 19:58 | 4 KB |

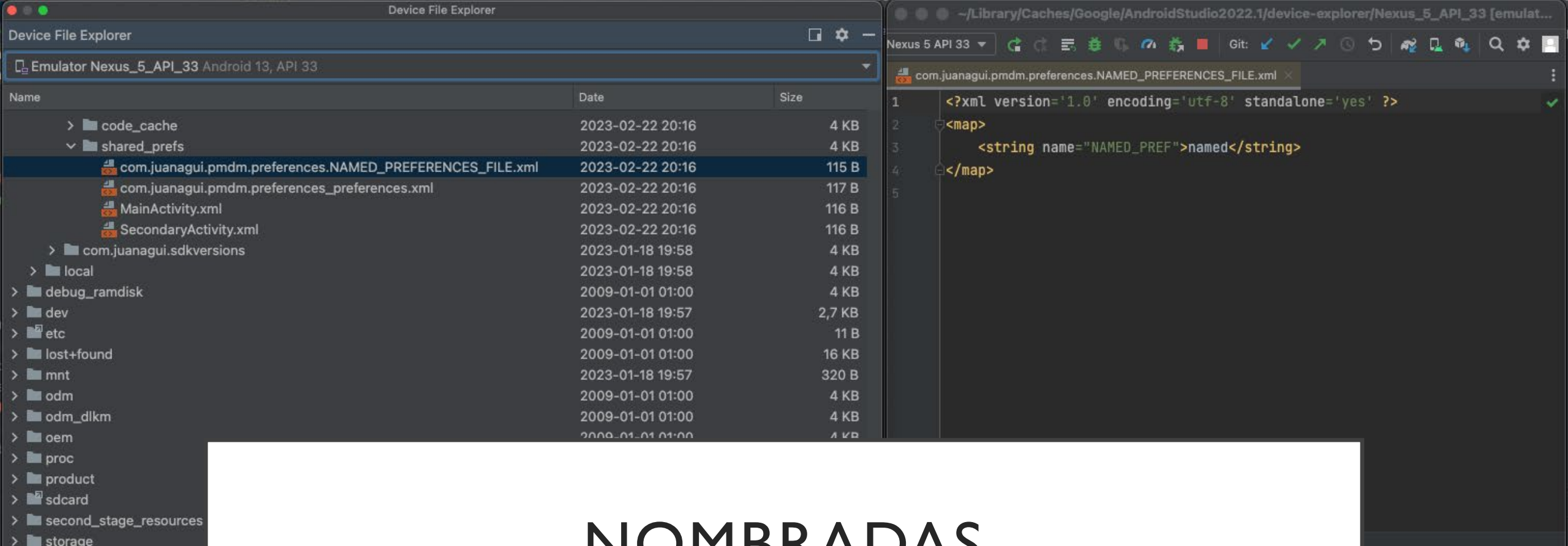
FICHEROS

- Las preferencias se guardan en ficheros XML
- La ruta es dependiente del paquete de la aplicación
/data/data/com.juanagui.pmdm.preferences/shared_prefs
- **NO SON SEGURAS**


```
com.juanagui.pmdm.preferences_preferences.xml x
1 <?xml version='1.0' encoding='utf-8' standalone='yes' ?>
2 <map>
3   <string name="GLOBAL_PREF">global</string>
4 </map>
5
```

| Device File Explorer | | |
|--|------------------|--------|
| Emulator Nexus_5_API_33 Android 13, API 33 | | |
| Name | Date | Size |
| com.juanagui.pmdm.preferences | 2023-01-18 19:58 | 4 KB |
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| MainActivity.xml | 2023-02-22 20:16 | 116 B |
| SecondaryActivity.xml | 2023-02-22 20:16 | 116 B |
| > com.juanagui.sdkversions | 2023-01-18 19:58 | 4 KB |
| > local | 2023-01-18 19:58 | 4 KB |
| > debug_ramdisk | 2009-01-01 01:00 | 4 KB |
| > dev | 2023-01-18 19:57 | 2,7 KB |
| > etc | 2009-01-01 01:00 | 11 B |
| > font | 2009-01-01 01:00 | 16 KB |
| > fonts | 2009-01-01 01:00 | 320 B |
| > fonts | 2009-01-01 01:00 | 4 KB |
| > fonts | 2009-01-01 01:00 | 4 KB |
| > fonts | 2009-01-01 01:00 | 4 KB |

globales



NOMBRADAS

```
com.juanagui.pmdm.preferences_preferences.xml × Users/.../SecondaryActivity.xml
1 |<?xml version='1.0' encoding='utf-8' standalone='yes' ?>
2 |<map>
3 |   <string name="ACTIVITY_PREF">one</string>
4 |</map>
5 |
```

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|--|------------------|--------|
| Name | Date | Size |
| com.juanagui.pmdm.preferences | 2023-01-18 19:58 | 4 KB |
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| com.juanagui.pmdm.preferences_preferences.xml | 2023-02-22 20:16 | 117 B |
| MainActivity.xml | 2023-02-22 20:16 | 116 B |
| SecondaryActivity.xml | 2023-02-22 20:16 | 116 B |
| com.juanagui.sdkversions | 2023-01-18 19:58 | 4 KB |
| local | 2023-01-18 19:58 | 4 KB |
| debug_ramdisk | 2009-01-01 01:00 | 4 KB |
| dev | 2023-01-18 19:57 | 2,7 KB |
| etc | 2009-01-01 01:00 | 11 B |
| font | 2009-01-01 01:00 | 16 KB |
| font | 2009-01-01 01:00 | 320 B |
| font | 2009-01-01 01:00 | 4 KB |
| font | 2009-01-01 01:00 | 4 KB |
| font | 2009-01-01 01:00 | 4 KB |

ACTIVIDAD: MAIN

```
com.juanagui.pmdm.preferences_preferences.xml × Users/.../MainActivity.xml ×
1 |<?xml version='1.0' encoding='utf-8' standalone='yes' ?>
2 |<map>
3 |    <string name="ACTIVITY_PREF">two</string>
4 |</map>
5 |
```

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|--|------------------|--------|
| Emulator Nexus_5_API_33 Android 13, API 33 | | |
| Name | Date | Size |
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| > fonts | 2009-01-01 01:00 | 4 KB |
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| > fonts | 2009-01-01 01:00 | 4 KB |

ACTIVIDAD: SECONDARY