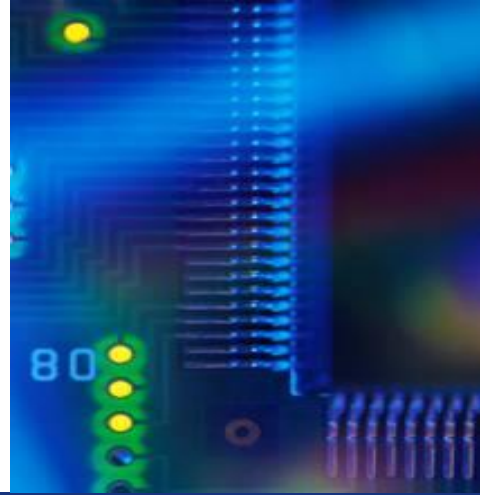
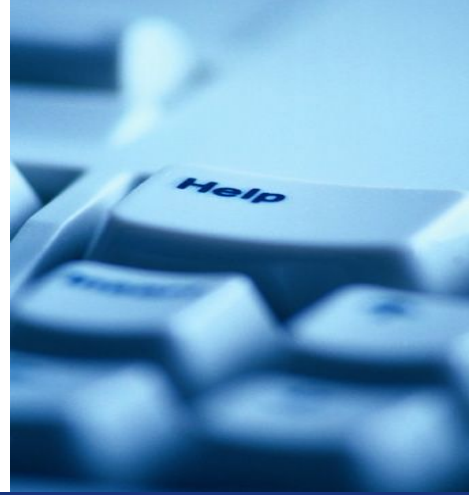




**UNIVERSITAS
BUDI LUHUR**



FAKULTAS TEKNOLOGI INFORMASI

Mobile Programming

[PG119/ 3 SKS]

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Logcat and String Resources

What is LogCat

- A tool in Android Studio for viewing system messages, debugging, and logging.
- Useful for tracking application behavior and troubleshooting issues.

Logcat Usage in Android Java

- Accessed through Log class in Java using import
 - `import android.util.Log;`
- Common methods:
 - `Log.d(String tag, String msg)` – for debugging
 - `Log.i(String tag, String msg)` – for informational messages
 - `Log.w(String tag, String msg)` – for warnings
 - `Log.e(String tag, String msg)` – for errors

Example:

```
Log.d("MainActivity", "This is a debug message");
```

Best Practises for Using Logcat

- **Use Descriptive Tags:**
 - Keep tags specific to the module or component (e.g., NETWORK, UI, DATABASE).
- **Avoid Logging Sensitive Information:**
 - Ensure sensitive data (e.g., passwords, tokens) is never logged.
- **Filter Log Levels in Logcat:**
 - Use filters (Debug, Error, Info) to focus on relevant logs.
- **Clear Logs During Production:**
 - Disable unnecessary logging in release builds for performance and security.

Understanding String Resources in Android

What are String Resources?

- Externalized text resources stored in XML files (typically strings.xml).
- Used for localization and avoiding hard-coded text in code.
- Location : res/values/strings.xml

String Resource in XML Structure

```
<resources>
    <string name="app_name">My Application</string>
</resources>
```

Common warnings

⚠ Hardcoded string "input number 2", should use `@string` resource :28

Best Practises for String Resources

- **Use Descriptive Names:**
 - Name string resources meaningfully for easy identification.
- **Facilitate Localization:**
 - Store all user-facing text in strings.xml for easier translation.
- **Avoid Hardcoding Strings:**
 - Keep UI and logic clean by referencing string resources instead of hardcoding text.
- **Use Formatting and Plurals:**
 - Handle dynamic strings and plurals with placeholders (e.g., %s, %d).

</> strings.xml x

ⓘ Edit translations for all locales in the translations editor. Open editor Hide notification

```

1 <resources>
2   <string name="app_name">My Application</string>
3 </resources>

```

Open Editor

Translations Editor x </> strings.xml </> activity_mai

+ - 🌐 Show All Keys Show All Locales ↺ ?

Key	Resource Folder	Untranslatable	Default Value
app_name	app/src/main/res	☐	My Application

Use String resource

```
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/app_name"
/>
```