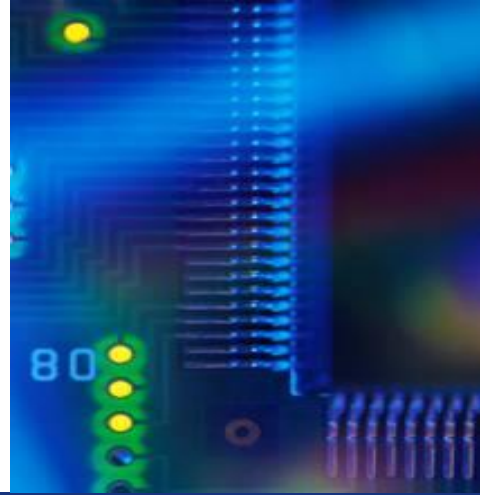
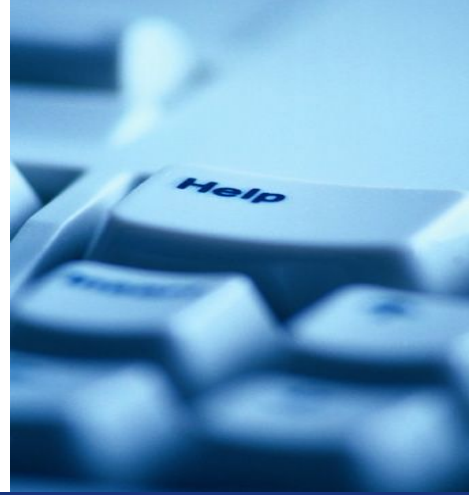




**UNIVERSITAS
BUDI LUHUR**



FAKULTAS TEKNOLOGI INFORMASI

Mobile Programming

[PG119/ 3 SKS]

Riskiana Wulan, MKom

Agenda

1. **Writing Clean Code**
2. **Spinner**



Writing Clean Code

Why Follow Best Practices

- **Improved Readability:** Easier for others to understand.
- **Maintainability:** Simplifies debugging and enhancements.
- **Performance:** Results in faster, efficient code.
- **Professional Growth:** Aligns with industry standards.

Code Readability and Maintainability

1. Use Meaningful Variable and Method Names (use name in English):
 - Bad: `int a;`
 - Good: `int studentAge;`
2. Use appropriate data types
3. Write Short Methods
Break long methods into smaller, reusable methods.
4. Use whitespace and indentation to improve readability

Efficient Coding Techniques

- **Avoid Code Duplication:** DRY (Don't Repeat Yourself).
- **Optimize Loops:** Use for-each loops for better readability.
- **Use exception handling in a proper way**
- **Use unit tests to ensure code works as expected**
- **Use code review, pair programming, and mentoring to improve the code quality**

<https://medium.com/@samuelcatalano/clean-code-best-practices-and-examples-in-java-e04e1ae70835>



Spinner

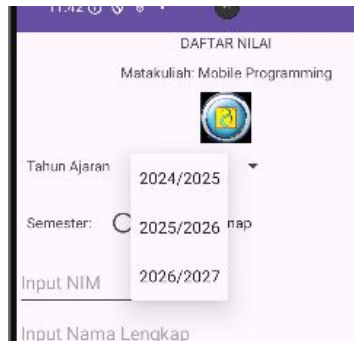
1. Spinner

Spinner provides a dropdown menu to select one item from a list.

Useful for selecting from a small set of items.

Layout:

```
<Spinner
    android:id="@+id/spinner_period"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
/>
```



Activity Class

```
public class MainActivity extends AppCompatActivity
{
    Spinner periodSpinner;
    periodSpinner =
    findViewById(R.id.spinner_period);

    String[] periodString = {"2024/2025",
    "2025/2026", "2026/2027"};
    ArrayAdapter<String> adapter = new
    ArrayAdapter<>(this,
    android.R.layout.simple_spinner_item, periodString);

    adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
    periodSpinner.setAdapter(adapter);
}
```



HANDS ON LAB

Buat Simple Calculator yang berisi operasi perhitungan 2 angka (number1 dan number 2) dengan ketentuan seperti dibawah ini

- 1. Buat dropdown operator menggunakan Spinner yang berisi :**
 - a. Penjumlahan
 - b. Pengurangan
 - c. Perkalian
 - d. Pembagian
- 2. Tambahkan Button "Process"**
- 3. Jika button process diklik dan Operator yang dipilih adalah**
 - a. penjumlahan , maka jalankan logic result= number1 + number2
 - b. Pengurangan, maka jalankan logic result= number1 - number2
 - c. Perkalian, maka jalankan logic result= number1 x number2
 - d. Pembagian, maka jalankan logic result= number1 : number2
- 4. Tampilkan hasil menggunakan dialog yang berisi hasil dari**
Number 1 {Operator} Number 2 = result