

Session 4 : AADK Task 4 - Compose Basics and UI Layouts

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1. Overview of the Task

In this session, I applied Jetpack Compose fundamentals to design and implement a Business Card UI layout. The goal was to practice layout structuring using composables such as Column, Image, Text, and Spacer, while ensuring proper alignment, readability, and responsiveness.

This task focused on planning UI structure before coding and reflecting on layout improvements after implementation.

2. UI Planning Before Coding

Before writing code, I analyzed the layout requirements and structured the UI logically.

2.1. Layout Structure Plan

The business card design required:

- A profile image at the top (circular shape)
- Name (bold, large font)
- Job title
- Contact information (phone, email, location)
- Everything centered on the screen

2.2. Planned Layout Hierarchy

Column (fillMaxSize, centered)



2.3. Composables Used

- Column → To arrange elements vertically
- Image → To display profile image
- Text → For name, title, and contact info
- Spacer → To control vertical spacing
- Modifier → For size, padding, alignment, clipping

2.4 Alignment Strategy

- verticalArrangement = Arrangement.Center
- horizontalAlignment = Alignment.CenterHorizontally

This ensured the layout is visually balanced.

3. Implementation Reflection

After implementing the UI:

3.1. What Went Well

- The layout is properly centered both vertically and horizontally.
- The profile image is clipped using CircleShape.
- Font sizes and weights clearly differentiate name and role.
- Spacing is consistent and visually balanced.

3.2. What Was Challenging

- Deciding appropriate spacing between elements.
- Understanding how fillMaxSize() affects overall layout.
- Ensuring the design remains clean and not overcrowded.
- Managing visual balance between image size and text size.

3.3. What I Would Improve Next Time

- Make layout responsive for landscape mode.
- Improve accessibility by adding meaningful contentDescription.
- Adjust color contrast for better readability.
- Extract contact information into a reusable composable.



Fig 1. Business card

4. Accessibility Considerations

To improve accessibility compliance:

- Add descriptive contentDescription for images.
- Ensure sufficient color contrast.
- Use readable font sizes.
- Avoid hardcoded strings (use stringResource).

5. Responsiveness Considerations

To make the layout adaptable:

- Use Modifier.fillMaxSize() instead of fixed heights.
- Avoid hardcoded positions.
- Use Spacer instead of manual offsets.

6. Learning Outcome

Through this task, I strengthened my understanding of:

- Layout structuring using Column
- Alignment and arrangement principles
- Effective use of Modifier
- Designing balanced UI layouts before coding
- Improving readability and accessibility

Planning the layout before implementation made the coding process more efficient and reduced errors.

7. Short Reflection (3–4 lines)

This session helped me understand that UI design in Compose requires planning layout structure before writing code. By analyzing alignment, spacing, and responsiveness in advance, I was able to build a clean and balanced business card layout. Reflection after implementation improved my awareness of accessibility and design improvement areas.