Material Design
Sensor Based Mobile Applications

Patrick Ausderau, Ulla Sederlöf, Jarkko Vuori

Helsinki Metropolia University of Applied Science

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Outline

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Material Design

- Material design is a comprehensive guide for visual, motion, and interaction design across platforms and devices (from wearables to TV and desktop)
- A new theme: Material Theme (android version $>=$ 5.x)
- New widgets for complex views
  - List: `LazyColumn`/`LazyRow` (`RecyclerView` in traditional XML layout)
  - `Card` (`CardView` in traditional XML layout)
- Pull to refresh – SwipeRefreshLayout
- Floating Action Button
- New APIs for custom shadows and animations
  - Also z-dimension - provides '3D look' using shadows, i.e. objects are closer or further away
  - Touch feedback animation

Background info

- `https://material.io/design/`
- `https://developer.android.com/jetpack/compose/themes/material`
- `https://materialdesignicons.com/`
- `https://developer.android.com/reference/kotlin/androidx/compose/material/icons/package-summary`

Lab_w1_d5_Material

Continue from Ulla's material design lab:

- ▶ Creating your own theme (both Light and Dark). And customize the status bar by changing primary colors. `https://developer.android.com/reference/kotlin/androidx/compose/material/package-summary` and `https://material.io/design/color/`

- ▶ Add elevation and shadow to your elements `https://material.io/design/environment/elevation.html`

Lab_w1_d5_Material

Continue from Ulla's material design lab:

- ▶ Add a Floating Action Button that will preform an action
  `https://material.io/components/`
  `buttons-floating-action-button`.
  Why not two action buttons? Can you justify?
- ▶ Use icon with your material/FAB button
- ▶ Use Card

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