

Student Information

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Section: 1

Pages Implemented

1. **Page Name:** Children Development Statistics Page
Description: Show the spider chart of all of the parents' kids, as well as the statistics for their height and weight. uses a `PageView.builder` to provide navigation across distinct children's data.
2. **Page Name:** Articles Page
Description: Show a collection of articles about kid parenting. Provide a search bar for filtering articles by title or subtitle, and display them in a scrollable list. Tapping on an article leads to:
 - a. **Page Name:** Details Articles
Description: A detail of that article along with share and bookmark button even though it did nothing.

Features and Widgets Used

- **main.dart**
 - **MaterialApp:** The root widget for the application.
 - **BottomNavigationBar:** Used for navigation between the "Stats" and "Articles" pages.
- **stat.dart**
 - **PageController and PageView.builder:** Horizontal swiping between different children's development statistics.
 - **RadarWidget (from kg_charts package):** Displays the spider chart.
 - **SingleChildScrollView:** Allows the content of the statistics page to be scrollable if it overflows.
 - **AspectRatio:** Ensures the spider chart maintains a square aspect ratio.
- **articles.dart**
 - **CustomScrollView with SliverAppBar and SliverList:** Provides a scrolling and appbar that can be collapsed.
 - **TextFormField:** Used for the search input field to filter articles.
 - **InkWell and Card:** Create tappable article cards with visual elevation.
 - **ListTile:** A structured widget used for displaying individual articles.
 - **Image.asset:** For displaying local and network images.
- **Most Of Files**
 - **Scaffold:** Provides the basic structure for Material Design apps.
 - **AppBar:** Displays a title at the top.
 - **Icon:** Used for icons, such as navigation arrows, search, etc.
 - **Text:** Used for displaying text.
 - **Padding and SizedBox:** Used for spacing and layout adjustments.

- **Column and Row:** Arranging children vertically and horizontally.
- **Expanded:** Used in Row/Column to make a child widget fill available space.
- **Container:** For styling, such as adding background colors, borders, and rounded corners to elements like the highlight boxes.
- **BoxDecoration and BorderRadius:** Used for styling Container widgets.
- **Positioned:** Used within Stack to place widgets.
- **models/**
 - **article_models.dart:** Hardcoded Data of all articles
 - **radar_data.dart:** Hardcoded Data of all radar charts.

Known Issues or Limitations

1. **Hardcoded Data:** The child development statistics (weights, heights) and article content are in models folder and some are in the page file. **Can not be add**
2. **Non-Clickable Button:** The "Save Data" button is present but does nothing since the design did not cover it.
3. **Placeholder Actions:** The "Share" and "Bookmark" icons on the Article Detail Page only display a simple "The button clicked" SnackBar but do not perform actual sharing or bookmarking. **Design didn't cover it**

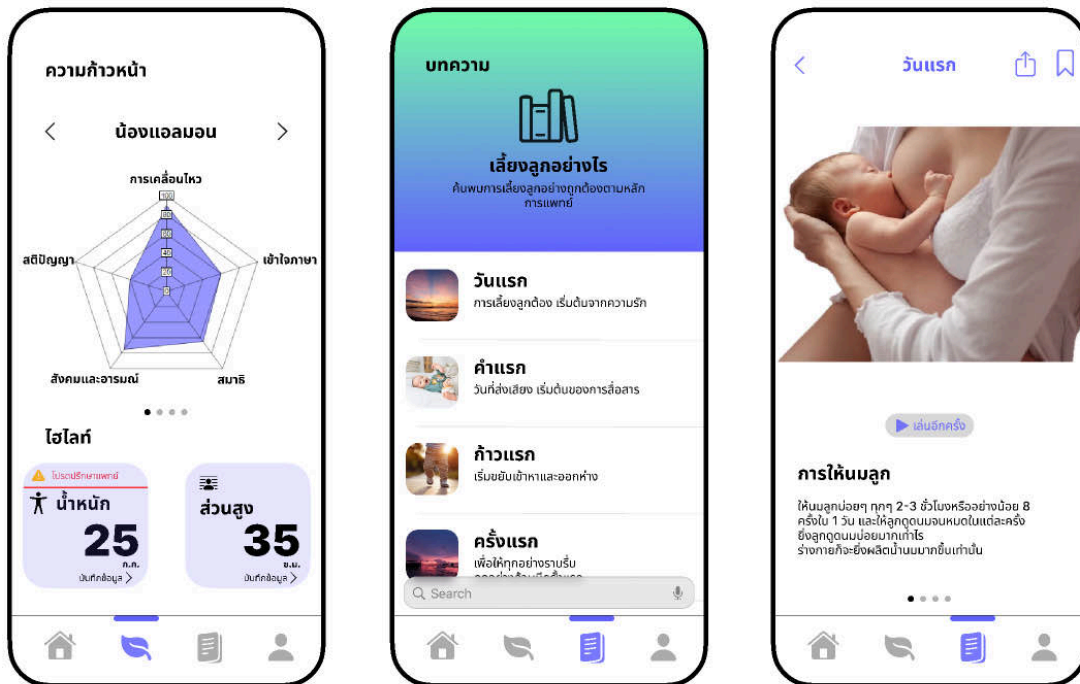
Reflection

1. **What did you find most challenging about this project?**
 - **Libraries:** The kg_charts library for the radar chart, including data mapping and customization. (kinda hard to learn new things even though the library is quite easy)
 - **Complex UI Layouts:** Designing and implementing responsive and visually appealing layouts, Based on the UI created is very difficult since the design process I did not think I have to implement. (Design from another subject)
2. **Which widgets or design elements are you most proud of using?**
 - **RadarWidget:** Visualizing child development data in a spider chart.
 - **CustomScrollView and SliverAppBar:** Creating scrolling for the articles list with a collapsing app bar.
3. **What would you add or improve with more time?**
 - **Articles search:** Add filtering options and implement a bookmark system.
 - **User Profiles:** Add user profiles to manage data for multiple children and parents allow them to add data of students to update the chart, weight, height.

Design:

<https://www.figma.com/design/oRaTnIEIYxtar82OWnfruO/HCI---Design?node-id=0-1&t=ZTp16kptfuL91wt2-1>

Design Page Selected:



Implemented

