

First Aid Android Application

This Android application serves as a first aid resource providing information on 21 medical injuries and their corresponding procedures. As this is a first aid, images are provided so users do not have to read through in case this is faster for them. Beyond this, a search bar can be used to search for injuries.

Overview

The application consists of two main activities:

1. MainActivity

Purpose: The MainActivity serves as the entry point and the main screen of the Medical Dictionary application. It provides users with a simple grid of images representing various medical injuries or conditions. As this is a first aid application, it may be tedious for users to read each and every injury so images are presented.

Key Features:

- **Grid Display:** The MainActivity displays a grid layout containing images of different injuries. The number of columns is fixed to two, but the number of rows is dynamic and can change based on how many more static images are built into the code. Within this relative layout, a linear layout is used to stack the image on top of the text.
- **Search Functionality:** Users can search for specific injuries using the search bar provided at the top of the screen. The text does not have to match the injury but it matches the text to if it is in the image or not. I.e. if a user is searching for “Hyperglycemia”, they can search for “gly”, and “Hyperglycemia” and “Hypoglycemia” will appear.
- **Image Click Handling:** Clicking on an image representing an injury navigates the user to the corresponding ProceduresActivity, where simple and standard procedures for treating that injury are displayed.
- **Dynamic Layout:** The grid layout adjusts dynamically based on the number of search results or available injuries, providing a seamless user experience.

2. ProceduresActivity

Purpose: The ProceduresActivity provides detailed information about the procedures to be followed in case of a specific injury or medical condition. It complements the MainActivity by offering comprehensive guidance on managing and treating various injuries.

Key Features:

- **Injury Selection:** Displays the name of the selected injury at the top of the screen, providing clarity to the user about the context of the displayed procedures.
- **Procedure Details:** Presents a detailed list of steps to be followed when dealing with the selected injury. Each step is described clearly, providing users with actionable guidance.
- **Back Navigation:** Allows users to navigate back to the MainActivity using the "Back" button. This ensures smooth navigation between screens within the application.

Getting Started

To run the application, follow these steps:

1. Clone the repository.
2. Open the project in Android Studio.
3. Build and run the application on an Android emulator or a physical device.

Features

- **Search:** Users can search for specific injuries using the search bar to filter the displayed images.
- **Procedure Details:** Detailed procedures are provided for each injury, including steps to follow in case of an emergency.
- **Back Navigation:** Users can navigate back to the main screen from the procedure details screen.

Libraries Used

The application uses the following libraries:

- ``androidx.appcompat``: Provides compatibility features for newer Android versions.
- ``android.widget``: Provides UI components for building the user interface.
- ``android.content.Intent``: Facilitates communication between components of the application.
- ``android.os.Bundle``: Provides a data container for passing information between activities.
- ``android.text.TextWatcher``: Monitors changes to editable text fields.
- ``android.view.Gravity``: Provides ways to specify the alignment of views.
- ``android.view.ViewGroup``: Represents the basic building block for user interface components.
- ``android.widget.Toast``: Provides feedback to the user through a small pop-up message.
- ``androidx.appcompat.app.AppCompatActivity``: Base class for activities that use the support library action bar features.
- ``android.widget.ImageView``: Displays image resources.
- ``android.widget.TextView``: Displays text to the user.
- ``android.widget.Button``: Represents a push-button widget.

References:

<https://www.verywellhealth.com/basic-first-aid-procedures-1298578>

<https://kidshealth.org/en/parents/splinters-sheet.html#:~:text=Pull%20slowly%20and%20gently%20at,cover%20it%20with%20a%20bandage.>

<https://kidshealth.org/en/parents/firstaid-safe/>

<https://developer.android.com/develop/ui/views/layout/relative>

<https://abhiandroid.com/programming/intent-in-android#gsc.tab=0>