Keyboard Navigation

Background

This module demonstrates the use of an external keyboard or D-Pad to navigate around an app.

A working version of this app is available at: https://github.com/milk-modules/Apps/tree/master/accessible/DemoApp04

Prerequisite

1. Android studio is installed on the development workstation
2. A working Android emulator is available for testing
3. The emulator has been configured to use a D-Pad

Activity Instructions

This activity will utilize a pre-created version of this project and only applies associating focus properties to the UI controls. Download the code for DemoApp04 from: https://github.com/milk-modules/Apps/tree/master/non-accessible

The project contains only one screen (activity). The primary user interface (UI) elements of this screen are:

1. A form containing text boxes, buttons and a list.
   [Note: there is no functionality associated with the button clicks]

Follow the below steps to associate the focus attributes to the UI controls. All updates below are to be done on the file: activity_main.xml

<u>Steps</u>

1. Add the code highlighted in yellow to the 'editTextName' property listing:

```
<EditText
    android:id="@+id/editTextName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="0.71"
    android:ems="10"
    android:inputType="textPersonName"
    android:nextFocusDown="@+id/listViewOrigin"
    android:nextFocusLeft="@+id/buttonSave"
    android:nextFocusRight="@+id/listViewOrigin"
    />
```

2. Add the code highlighted in yellow to the 'listViewOrigin' property listing:

```xml
<ListView
    android:id="@+id/listViewOrigin"
    android:layout_width="241dp"
    android:layout_height="match_parent"
    android:entries="@array/country_origin"
    android:nextFocusLeft="@+id/editTextName"
    android:nextFocusRight="@+id/editTextQuantity"/>
```

3. Add the code highlighted in yellow to the 'editTextQuantity' property listing:

```xml
<EditText
    android:id="@+id/editTextQuantity"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="0.61"
    android:ems="10"
    android:inputType="number"
    android:nextFocusRight="@+id/buttonCancel"
    android:nextFocusLeft="@+id/listViewOrigin"
    android:nextFocusUp="@+id/listViewOrigin"
    android:nextFocusDown="@+id/buttonCancel"/>
```

4. Add the code highlighted in yellow to the 'buttonCancel' property listing:

```xml
<Button
    android:id="@+id/buttonCancel"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:text="Cancel"
    android:nextFocusRight="@+id/buttonSave"
    android:nextFocusUp="@+id/editTextQuantity"
    android:nextFocusLeft="@+id/editTextQuantity"
    android:nextFocusDown="@+id/buttonSave"/>
```

5. Add the code highlighted in yellow to the 'buttonSave' property listing:

```xml
<Button
    android:id="@+id/buttonSave"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:text="Save"
    android:nextFocusRight="@+id/editTextName"
    android:nextFocusUp="@+id/buttonCancel"
    android:nextFocusLeft="@+id/buttonCancel"
    android:nextFocusDown="@+id/editTextName"/>
```

Deploy the app into the emulator and use the arrow keys associated with the D-Pad to access the UI elements in the screen instead of touching the controls or using a mouse pointer.