Software Development for Mobile Devices

# Submission for Assignment A3.2P

## Task 2: String and localisation

### Localization mechanism

In Android development, developers are able to change text, images, audio files, currency based on device’s language supporting by this Android device. Developers create multiple resource files to support other languages in /res directory. When the app is starting, Android chooses the most appropriate resource which closes to the language and region of the device to load (Localize your app 2018). For instance, let say developers want to support English and Vietnamese so that when the device is set to Vietnamese, it will automatically update. First, developers select New >> Resource File >> Locale >> Language >> Vietnamese >> Region >> Vietnam.



Figure 1: Localize text in Vietnamese

Second translate all of value in /res/strings.xml (vi-rVN) to Vietnamese. Eventually, text which use exactly the same key in the strings.xml will eventually change to Vietnamese if the user change to Vietnamese in Setting >> Languages and Regions.

### App screen shot

|  |  |
| --- | --- |
| English | Vietnamese |
|  |  |

### strings.xml

<resources>  
 <string name="app\_name">W2\_Conversion</string>  
 <string name="btn\_convert">Convert</string>  
 <string name="checkbox\_metres">Display in metres</string>  
 <string name="metres">metres</string>  
 <string name="result">Results:</string>  
</resources>

### string.xml (vi-rVN)

<?xml version="1.0" encoding="utf-8"?>  
<resources>  
 <string name="app\_name">W2\_Conversion\_Tiếng Việt</string>  
 <string name="btn\_convert">Chuyển đổi</string>  
 <string name="checkbox\_metres">Chuyển sang mét</string>  
 <string name="metres">mét</string>  
 <string name="result">Kết quả:</string>  
</resources>

### activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<android.support.constraint.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context="com.example.swinburne.w2\_conversion.MainActivity">  
  
 <TableLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginTop="8dp">  
 <TableRow >  
  
 <EditText  
 android:id="@+id/edtMiles"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="5dp"  
 android:layout\_marginStart="5dp"  
 android:layout\_weight="1"  
 android:hint="Miles"  
 android:inputType="numberDecimal" />  
  
 <EditText  
 android:id="@+id/edtFeet"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Feet"  
 android:inputType="numberDecimal"  
 android:layout\_marginStart="5dp"  
 android:layout\_marginEnd="5dp"  
 android:layout\_weight="1"  
 />  
  
 <EditText  
 android:id="@+id/edtInches"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Inches"  
 android:inputType="numberDecimal"  
 android:layout\_marginStart="5dp"  
 android:layout\_marginEnd="5dp"  
 android:layout\_weight="1">  
 </EditText>  
  
 </TableRow>  
  
 <TableRow>  
 <Button  
 android:id="@+id/btnConvert"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/btn\_convert"  
 android:layout\_weight="1"  
 />  
 </TableRow>  
  
 <LinearLayout  
 android:layout\_marginTop="5dp"  
 >  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="5dp"  
 android:text="@string/result"  
 android:textStyle="bold" />  
 <TextView  
 android:id="@+id/txtViewResult"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="5dp"  
 android:text=""  
 android:textStyle="bold"  
 android:layout\_weight="1"/>  
  
 <CheckBox  
 android:id="@+id/chkboxDisplayMetres"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginEnd="5dp"  
 android:text="@string/checkbox\_metres"/>  
 </LinearLayout>  
  
 </TableLayout>  
  
</android.support.constraint.ConstraintLayout>

# References

*Localize your app*, viewed 15 August 2018, <https://developer.android.com/guide/topics/resources/localization>.