# CS 646 Android Mobile Application Development Spring Semester, 2017 Assignment 2

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> Due: Feb 12 at 23:59 Points: 100 Objectives

Use some basic UI widgets
Use Intents to call other Activities
Handling the Keyboard
Using Fragments
Permanent storage

You will be trying out a number of different UI elements. You do not need different layouts for landscape and portrait views.

### **Person Activity**

The first or main activity collects the basic information about a person. This activity's view will look like a basic form. The information we will collect is:

First (given) name Family (last) name

Age

**Email** 

Phone

Birthdate

Country and state(providence)

For each of the first six items (first name, last name, age, email and phone) use a text field to allow the user to enter the data. In each text field the appropriate keyboard needs to be used. The keyboard should not hide the text field the user is entering. All items need a label indicating what information they contain (first name, last name, etc). All items are on a separate line.

For the birthdate use the date picker, not the date picker dialog. This will not fit on the current activity. So on the birthdate line add a button labeled "Set". When tapped the button takes the user to a different activity/view - the date activity/view. When the user returns from the date activity after selecting a date that date should be shown. If the user does not select a date or cancels the date activity then no change is made to the date information shown. The user should not be able to edit the date information in the user activity view. They can only do that when they go to the date activity/view.

For the country and state we will also use a separate activity. Like the birthdate there is a set button on the country & state line which takes the user to the country/state view where the user can select a country and a state. When the user returns from the country/state view the result is displayed. If the user does not select anything in the country/state view then no change is made to the country/state data.

Finally there is a done button. When the done button is pressed the user information is saved. When the app is killed and restarted the saved data is displayed in this activity.

#### **Date Activity**

The date activity has a date picker date where the user can select a date using either year, month, and day spinners or a CalendarView. It also has a cancel button and a done button. When the done button is selected the date in the date picker is returned to the Person Activity, the view goes to the Person Activity and the date activity is destroyed. Make sure that the the app goes to the previous user active and does not create a new Person Activity. When the cancel button is selected the operation is cancelled and like the done button the app goes back to the Person Activity

#### **Country/State Activity**

This activity has a list fragment, a done button and a cancel button. The done button and cancel button act like the buttons in the Date activity. The list contains the of countries given below. The user can select one item in the list. When they select a country they then see a list of state(providences) which they can select. You can either display the list of states in the same view or in a different view. In any case both lists need to use a list fragment.

### **Challenge Features**

- 1. Allow the user to go back to the Person Activity via the action bar. Make sure that the app goes back to the first activity and not create a new instance of the first activity. If the app is displaying a one of the other activities, that activity needs to be destroyed when you go back to the first activity.
- 2. Add items to the Action Bar to allow the user to select which activity to go to.

Due to the size of the class challenge features will not be checked and will not be graded under any circumstances.

#### What to turn in

Create a zip file of your entire android project. Please no rar files. Turn in your assignment at: <a href="http://bismarck.sdsu.edu/CoursePortal">http://bismarck.sdsu.edu/CoursePortal</a>. There is a link to that site in the assignment section of the course Blackboard site. You will need to create a password for the assignment site the first time you use it. Once you have logged on to the site select the assignments tab.

# Grading

The assignment will be graded as follows:

Points	Item
10	Person activity can enter name, age, email, phone
5	Correct keyboard for each text field, Keyboard does not hide text field while user is entering data
20	Date activity uses correct date picker, done and cancel buttons work
15	Saving date data permanently and retrieving the data
20	Country activity uses fragments
15	Country activity works properly, User selects country before state, done & cancel buttons work
5	Going back to person activity does not create a new activity
5	Country and state data not hard coded in app source code
5	Look of the app. Items line up when appropriate, consistent use of font, spelling, proper & consistent capitalization, etc.

When you create your project set the minimum required SDK to API 19 (Android 4.4 KitKat) and target Nexus 4.

# **Country & States**

China

Beijing Municipality
Tianjin Municipality
Hebei
Shanxi
Inner Mongolia
Liaoning
Jilin
Heilongjiang
Shanghai Municipality
Jiangsu
Zhejiang
Anhui
Fujian

Jiangxi

Shandong

Henan

Hubei

Hunan

Guangdong

Guangxi Zhuang

Hainan

Chongqing Municipality

Sichuan

Guizhou

Yunnan

**Tibet Autonomous Region** 

Shaanxi

Gansu

Qinghai

Ningxia Hui

Xinjiang Uyghur

Hong Kong

Macau

Taiwan

India

Andhra Pradesh

Arunachal Pradesh

Assam

Bihar

Chhattisgarh

Goa

Gujarat

Haryana

Himachal Pradesh

Jammu and Kashmir

Jharkhand

Karnataka

Kerala

Madhya Pradesh

Maharashtra

Manipur

Meghalaya

Mizoram

Nagaland

Odisha

Punjab

Rajasthan

Sikkim

Tamil Nadu Telangana Tripura Uttar Pradesh

Uttarakhand

West Bengal

Mexico

Aguascalientes

Baja California

Baja California Sur

Campeche

Chiapas

Chihuahua

Coahuil

Colim

Durango

Guanajuato

Guerrero

Hidalgo

Jalisco

México

Michoacán

Morelos

Nayarit

Nuevo Leó

Oaxaca

Puebla

Querétaro

Quintana Roo

San Luis Potosí

Sinaloa

Sonor

**Tabasc** 

Tamaulipa

Tlaxcala

Veracruz

Yucatá

Zacatecas

USA

Alabama

Alaska

Arizona

Arkansas

California

Colorado

Connecticut

Delaware

Florida

Georgia

Hawaii

Idaho

Illinois

Indiana

Iowa

Kansas

Kentucky

Louisiana

Maine

Maryland

Massachusetts

Michigan

Minnesota

Mississippi

Missouri

Montana

Nebraska

Nevada

**New Hampshire** 

**New Jersey** 

**New Mexico** 

**New York** 

North Carolina

North Dakota

Ohio

Oklahoma

Oregon

Pennsylvania

Rhode Island

South Carolina

South Dakota

Tennessee

Texas

Utah

Vermont

Virginia

Washington

West Virginia

Wisconsin

Wyoming