Mobile and Ubiquitous Computing Coursework

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I confirm that the code contained in this file (other than that provided or authorised) is all my own work and has not been submitted elsewhere in fulfilment of this or any other award.

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# Introduction

The application, Martin Friedberg, is essentially used to pick a date, i.e. the users’ birthday, and the information produced will show a car and a piece of information about the car. From this, the user can view the saved data by pressing the appropriate button.

# Screen Description

Each screen has been carefully designed to try ensure consistency with the placement and style of buttons and text being used. This consistent interface also includes a background colour using #85A3FF(<http://www.w3schools.com>).

## Splash Screen

The splash screen is the initial screen when the application is first opened. It shows an image of a car for approximately five seconds.

private static int SPLASH\_TIME\_OUT = 3000;

The above piece of code shows the timer for the splash screen to time out. After the splash screen times out it’ll automatically move onto the next page which is the start screen.

## Start Screen

The start screen provides information on the creator of the application, as well as a button which commences the application to move further into development. There is also a bit of information explaining what the application is for.

The screen contains three textviews and one clickable button. The main\_activity.xml contains the layout of the screen and the FirstScreenActivity.java contains the code used to execute the button. From this screen, the menu icon can be accessed to produce a quit button and an about button. The about button produces a dialog box when clicked.

public void onClick(View view) {

Intent activity\_main = new Intent(getApplicationContext(), MainActivity.class);

startActivity(activity\_main);

setResult(Activity.RESULT\_OK);

finish();

}

The above code is started when the start button is clicked. This tells the application to go to the MainActivity class, which is where the Date Picker is used.

## Date Picker

The third screen opens once the start button has been clicked. In this screen there is a text view, explaining what the date picker does, along with the date picker and then a submit button which is clicked once a date has been selected. The menu icon can also be accessed. When the icon is clicked, buttons for the about dialog, map, drawing to the canvas and quit are presented. The java code can be found in the MainActivity.java class and the layout it in the activity\_main.xml.

public boolean onOptionsItemSelected(MenuItem item) {

// Handle item selection

switch (item.getItemId()) {

case R.id.mMap:

Intent mfMap = new Intent(this, MapActivity.class);

this.startActivity(mfMap);

return true;

case R.id.mBio:

Intent BioDraw = new Intent(this, BioActivity.class);

this.startActivity(BioDraw);

return true;

case R.id.mQuit:

finish();

return true;

case R.id.mAbout:

// About Dialogue

DialogFragment AboutDlg = new AboutDialogue();

AboutDlg.show(fmAboutDialogue,"about\_Dlg");

return true;

default:

return super.onOptionsItemSelected(item);

}

}

The code shown represents the menu icon and each individual case which can be selected.

public void onClick(View view) {

martinFriedberg YourDay = new martinFriedberg(dpBDay.getDayOfMonth(),dpBDay.getMonth(),dpBDay.getYear());

//Save Preferences

SDPrefs.savePreferences("DOW", YourDay.getiDOW());

SDPrefs.savePreferences("Month", YourDay.getiMonth());

SDPrefs.savePreferences("DayBorn", YourDay.getsDOW());

Intent Output\_Screen = new Intent(getApplicationContext(), OutputScreen.class);

//Send data to the new Activity

sOutputMsg = YourDay.getsOutputMsg();

Output\_Screen.putExtra("tvOutputMsg", sOutputMsg);

Output\_Screen.putExtra("tvOutputMsg", YourDay.getsOutputMsg());

Log.e("n", YourDay.getsOutputMsg());

startActivity(Output\_Screen);

sOutputMsg = YourDay.getsOutputMsg();

Output\_Screen.putExtra("OutputMsg", sOutputMsg);

}

The code above is used to load the Output Screen as well as sending the date being picked to the save data output screen. Once the data has been sent to the saved data screen then the output screen for the date picker is produced by starting the OuputScreen.java class.

## Date Picker Output Screen

This screen is used to display the message produced when the user chooses a date from the date picker. The layout, output\_screen.xml is made up of two textviews which get the name and description of the car for the chosen date. There are two buttons. One of which will take the user back to the date picker when clicked. The other will the user to the saved data screen when clicked. The menu icon can also be clicked on this screen, giving the user access the map, the drawing to the canvas, the about dialog box and the quit button.

//Starts the activity to load the date picker when the pick date button is clicked.

private void btnPickDateClick(){

Intent activity\_main = new Intent(getApplicationContext(), MainActivity.class);

startActivity(activity\_main);

}

//Starts the activity saved data when the view saved data button is clicked.

private void btnSavedDataClick(){

Intent display\_Prefs = new Intent(getApplicationContext(), SavingDataOutput.class);

startActivity(display\_Prefs);

}

The two private button clicks are used to separate the two different buttons. One button will take the user back to the date picker, and the second button will take the user to the saved data screen

Intent iMainAct = getIntent();

mfOutput.setText(iMainAct.getStringExtra("tvOutputMsg"));

This retrieves the message to be set from the martinFriedberg.java class, which will be displayed to the user.

The Output Message is located in the martinFriedberg.java class. This class contains all the variations which can be displayed. The chosen array number is displayed with a date using the Gregorian Calendar system.

// Use the GregorianCalendar to instantiate a calendar object

GregorianCalendar gcCday = new GregorianCalendar(mfYear, mfMonth, mfDOW);

## Save Data Screen

The final screen is the saved data output screen. This screen will show the user the date which has been picked from the date picker. The screen can be accessed when the user selects the View Saved Data button on the date picker output screen. The layout, display\_prefs, consists of four textviews which should show the user the day of week, the month, the car name and the car description. There is also a button which will take the user back to the date picker output screen.

# References

http://www.w3schools.com/tags/ref\_colorpicker.asp