МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

Федерально автономное образовательное учреждение высшего образования

«Севастопольский государственный университет»

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курс 3 группа ИС/б-31-о

09.03.02 Информационные системы и технологии (уровень бакалавриата)

ОТЧЕТ

по лабораторной работе №7

по дисциплине «Мобильные ИТ»

на тему «Хранение данных. Настройки и внешние файлы»

Отметка о зачете \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_

(дата)

Руководитель практикума

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(должность) (подпись) (инициалы, фамилия)

Севастополь 2017

1. ЦЕЛЬ РАБОТЫ

Изучить инструменты хранения данных, а также работу с внешними файлами.

1. ИСХОДНЫЙ КОД

MainActivity.java

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| |  |  | | --- | --- | | 1 | package ru.justnero.sevsu.s3.e7; | | 2 |  | | 3 | import *android.Manifest*; | | 4 | import *android.app.DownloadManager*; | | 5 | import *android.content.Context*; | | 6 | import *android.content.Intent*; | | 7 | import *android.content.SharedPreferences*; | | 8 | import *android.content.pm.PackageManager*; | | 9 | import *android.net.Uri*; | | 10 | import *android.os.Bundle*; | | 11 | import *android.os.Environment*; | | 12 | import *android.support.annotation.NonNull*; | | 13 | import *android.support.v4.app.ActivityCompat*; | | 14 | import *android.support.v7.app.AppCompatActivity*; | | 15 | import *android.util.Log*; | | 16 | import *android.view.LayoutInflater*; | | 17 | import *android.view.View*; | | 18 | import *android.view.ViewGroup*; | | 19 | import *android.widget.Button*; | | 20 | import *android.widget.CheckBox*; | | 21 | import *android.widget.PopupWindow*; | | 22 | import *android.widget.RelativeLayout*; | | 23 | import *android.widget.Toast*; | | 24 |  | | 25 | public class MainActivity extends *AppCompatActivity* implements *View*.*OnClickListener* { | | 26 | private *MainActivity* activity; | | 27 | private *SharedPreferences* mSettings; | | 28 | *DownloadManager* downloadManager; | | 29 | private *long* downloadReference; | | 30 | final *String* APP\_PREFERENCES = "settingsPopupWindow"; | | 31 | *String* POPUP\_WINDOW\_SHOW = "popupShow"; | | 32 | *boolean* POPUP\_WINDOW\_IS\_SHOW = true; | | 33 | *View* popupView; | | 34 | *Button* btnDownload; | | 35 | *Button* btnOpen; | | 36 | *Button* btnDelete; | | 37 | *RelativeLayout* relativeLayout; | | 38 | *PopupWindow* popupWindow; | | 39 | *LayoutInflater* lInflater; | | 40 |  | | 41 | public MainActivity() { } | | 42 |  | | 43 | *@Override* | | 44 | protected *void* onCreate(*Bundle* *savedInstanceState*) { | | 45 | super.onCreate(savedInstanceState); | | 46 | setContentView(*R*.layout.activity\_main); | | 47 | downloadManager = (*DownloadManager*) getSystemService(DOWNLOAD\_SERVICE); | | 48 | *InitializeView*(); | | 49 | *PopupWindowInitialize*(); | | 50 | mSettings = getSharedPreferences(APP\_PREFERENCES, *Context*.MODE\_PRIVATE); | | 51 | if (mSettings.contains(POPUP\_WINDOW\_SHOW)) { | | 52 | POPUP\_WINDOW\_IS\_SHOW = mSettings.getBoolean(POPUP\_WINDOW\_SHOW, true); | | 53 | } | | 54 | findViewById(*R*.id.rootRelativeLayout).post(new *Runnable*() { | | 55 | public *void* run() { | | 56 | if (POPUP\_WINDOW\_IS\_SHOW) { | | 57 | popupWindow.showAsDropDown(btnDownload, 90, 90); | | 58 | } | | 59 | } | | 60 | }); | | 61 | } | | 62 |  | | 63 | private *void* InitializeView() { | | 64 | relativeLayout = (*RelativeLayout*) findViewById(*R*.id.rootRelativeLayout); | | 65 | btnDownload = (*Button*) findViewById(*R*.id.btnDownload); | | 66 | btnDownload.setOnClickListener(this); | | 67 | btnOpen = (*Button*) findViewById(*R*.id.btnOpen); | | 68 | btnOpen.setOnClickListener(this); | | 69 | btnDelete = (*Button*) findViewById(*R*.id.btnDelete); | | 70 | btnDelete.setOnClickListener(this); | | 71 | } | | 72 |  | | 73 | private *void* PopupWindowInitialize() { | | 74 | lInflater = (*LayoutInflater*) | | 75 | this.getSystemService(*Context*.LAYOUT\_INFLATER\_SERVICE); | | 76 | popupView = lInflater.inflate(*R*.layout.popup\_layout, null, false); | | 77 | popupView.findViewById(*R*.id.btnOk).setOnClickListener(new *View*.*OnClickListener*() { | | 78 | *@Override* | | 79 | public *void* onClick(*View* *v*) { | | 80 | *SharedPreferences*.*Editor* editor = mSettings.edit(); | | 81 | *boolean* isShow = !((*CheckBox*) popupView.findViewById(*R*.id.popupCheckbox)).isChecked(); | | 82 | editor.putBoolean(POPUP\_WINDOW\_SHOW, isShow); | | 83 | POPUP\_WINDOW\_IS\_SHOW = isShow; | | 84 | editor.apply(); | | 85 | popupWindow.dismiss(); | | 86 | } | | 87 | }); | | 88 | popupWindow = new *PopupWindow*(popupView, | | 89 | *ViewGroup*.*LayoutParams*.WRAP\_CONTENT, | | 90 | *ViewGroup*.*LayoutParams*.WRAP\_CONTENT); | | 91 |  | | 92 | } | | 93 |  | | 94 | public *boolean* haveStoragePermission() { | | 95 | if (checkSelfPermission(*Manifest*.*permission*.*WRITE\_EXTERNAL\_STORAGE*) | | 96 | == *PackageManager*.PERMISSION\_GRANTED) { | | 97 | return true; | | 98 | } else { | | 99 | *ActivityCompat*.requestPermissions(this, new *String*[]{*Manifest*.*permission*.*WRITE\_EXTERNAL\_STORAGE*}, 1); | | 100 | return false; | | 101 | } | | 102 | } | | 103 |  | | 104 | *@Override* | | 105 | public *void* onRequestPermissionsResult(*int* *requestCode*, @*NonNull* *String*[] *permissions*, @*NonNull* *int*[] *grantResults*) { | | 106 | super.onRequestPermissionsResult(requestCode, permissions, grantResults); | | 107 | if (grantResults[0] == *PackageManager*.PERMISSION\_GRANTED) { | | 108 | *DownloadFile*(); | | 109 | } | | 110 | } | | 111 |  | | 112 |  | | 113 | private *void* InitializeDownload(*String* *url*) { | | 114 | *Uri* *Download\_Uri* = *Uri*.parse(url); | | 115 | *DownloadManager*.*Request* request = new *DownloadManager*.*Request*(*Download\_Uri*); | | 116 | request.setDescription("Download file"); | | 117 | request.setTitle("Lab.07"); | | 118 | request.allowScanningByMediaScanner(); | | 119 | request.setNotificationVisibility(*DownloadManager*.*Request*.VISIBILITY\_VISIBLE\_NOTIFY\_COMPLETED); | | 120 | request.setDestinationInExternalPublicDir(*Environment*.DIRECTORY\_DOWNLOADS, "photo.jpg"); | | 121 | *DownloadManager* manager = (*DownloadManager*) getSystemService(*Context*.DOWNLOAD\_SERVICE); | | 122 | downloadReference = manager.enqueue(request); | | 123 | } | | 124 |  | | 125 | private *void* DownloadFile() { | | 126 | *String* url = "https://scontent-frt3-1.cdninstagram.com/t51.2885-15/e35/15099595\_1245503628875534\_5402097839276818432\_n.jpg"; | | 127 | *InitializeDownload*(url); | | 128 | } | | 129 |  | | 130 | *@Override* | | 131 | public *void* onClick(*View* *v*) { | | 132 | switch (v.getId()) { | | 133 | case *R*.id.btnDownload: { | | 134 | if (haveStoragePermission()) { | | 135 | *DownloadFile*(); | | 136 | } | | 137 | break; | | 138 | } | | 139 | case *R*.id.btnOpen: { | | 140 | *Uri* uri = downloadManager.getUriForDownloadedFile(downloadReference); | | 141 | if (uri == null) { | | 142 | *Toast*.makeText(this, "File was not downloaded!", *Toast*.LENGTH\_SHORT).show(); | | 143 | return; | | 144 | } | | 145 | *Intent* intentOpenFile = new *Intent*(*Intent*.ACTION\_VIEW); | | 146 | intentOpenFile.setData(uri); | | 147 | intentOpenFile.addFlags(*Intent*.FLAG\_ACTIVITY\_NEW\_TASK); | | 148 | startActivity(intentOpenFile); | | 149 | break; | | 150 | } | | 151 | case *R*.id.btnDelete: { | | 152 | *Uri* uri = downloadManager.getUriForDownloadedFile(downloadReference); | | 153 | if (uri == null) { | | 154 | *Toast*.makeText(this, "File was not downloaded!", *Toast*.LENGTH\_SHORT).show(); | | 155 | return; | | 156 | } | | 157 | downloadManager.remove(downloadReference); | | 158 | *Toast*.makeText(this, "File was deleted", *Toast*.LENGTH\_SHORT).show(); | | 159 | break; | | 160 | } | | 161 | } | | 162 | } | | 163 | } | |  |

ВЫВОДЫ

В ходе лабораторной работы были изучены инструменты хранения данных, а также работа с внешними файлами.