nBang Travel

Final Report

Team 11

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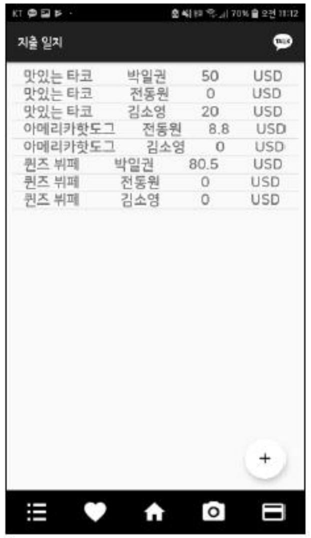
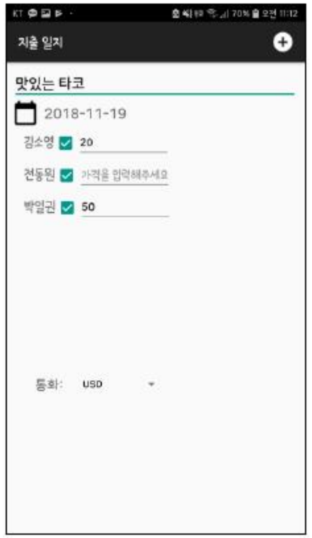


지출 일지

맛있는 타코	박일권	50	USD
맛있는 타코	전동원	0	USD
맛있는 타코	김소영	20	USD
아메리카핫도그	전동원	8.8	USD
아메리카핫도그	김소영	0	USD
퀸즈 뷔페	박일권	80.5	USD
퀸즈 뷔페	전동원	0	USD
퀸즈 뷔페	김소영	0	USD



지출 일지

맛있는 타코

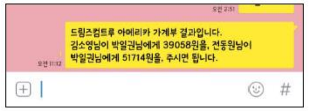
2018-11-19

김소영 ☑ 20

전동원 ☑ 가격을 입력해주세요

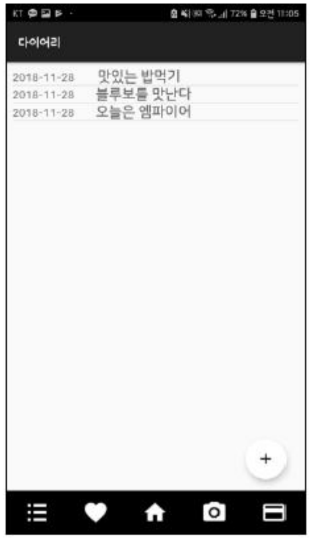
박일권 ☑ 50

통화: USD



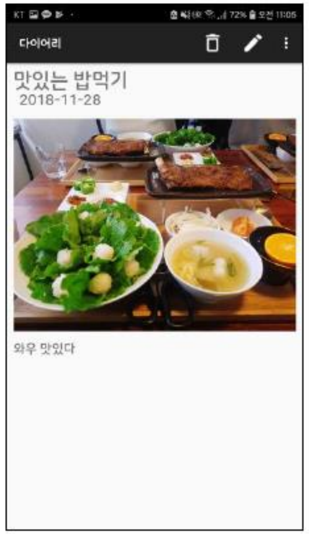
드림즈컴트루 아메리카 가계부 결과입니다.
김소영님이 박일권님에게 39058원을, 전동원님이
박일권님에게 51714원을, 주시면 됩니다.

Diary



다이어리

2018-11-28	맛있는 밥먹기
2018-11-28	블루보틀 맛난다
2018-11-28	오늘은 엠파이어

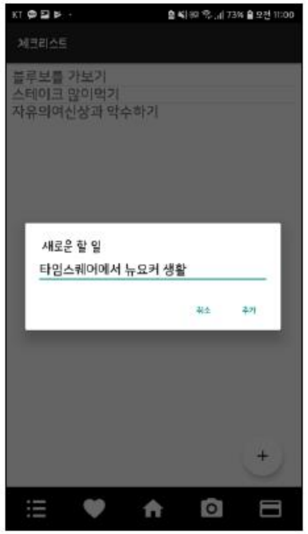


다이어리

맛있는 밥먹기
2018-11-28

와우 맛있다

Checklist



체크리스트

블루보틀 가보기
스테이크 많이먹기
자유의여신상과 악수하기

새로운 할 일

타임스퀘어에서 뉴요커 생활

- ✓ Travel Diary and Accounting Book Application for targeting people who travel with friends
- ✓ Provide Accounting Book for many different cases of expenditure during the travel
- ✓ Provide Social Media Sharing for diaries and dutch pay result.

Comparing Existing Apps

	Travel App	Dutch Pay App	nBang Travel
Expenditure Record	O	X	O
Applying Exchange Rate	O	X	O
Checklist	O	X	O
Calculating Accounting Book	X	O	O
Sharing Accounting Book	X	O	O
Diary	O	X	O
Sharing Diary	X	X	O

- **Existing Travel Apps**
  They can record the expenditures by currencies, however, does not provide the calculation function

- **Existing Dutch Pay App**
  They provide the calculation for the fair payment, but impossible to consider the currency.

Comparing Existing Apps

	Travel App	Dutch Pay App	nBang Travel
Expenditure Record	O	X	O
Applying Exchange Rate	O	X	O
Checklist	O	X	O
Calculating Accounting Book	X	O	O
Sharing Accounting Book	X	O	O
Diary	O	X	O
Sharing Diary	X	X	O

So, we **put them together** and create nBang Travel !

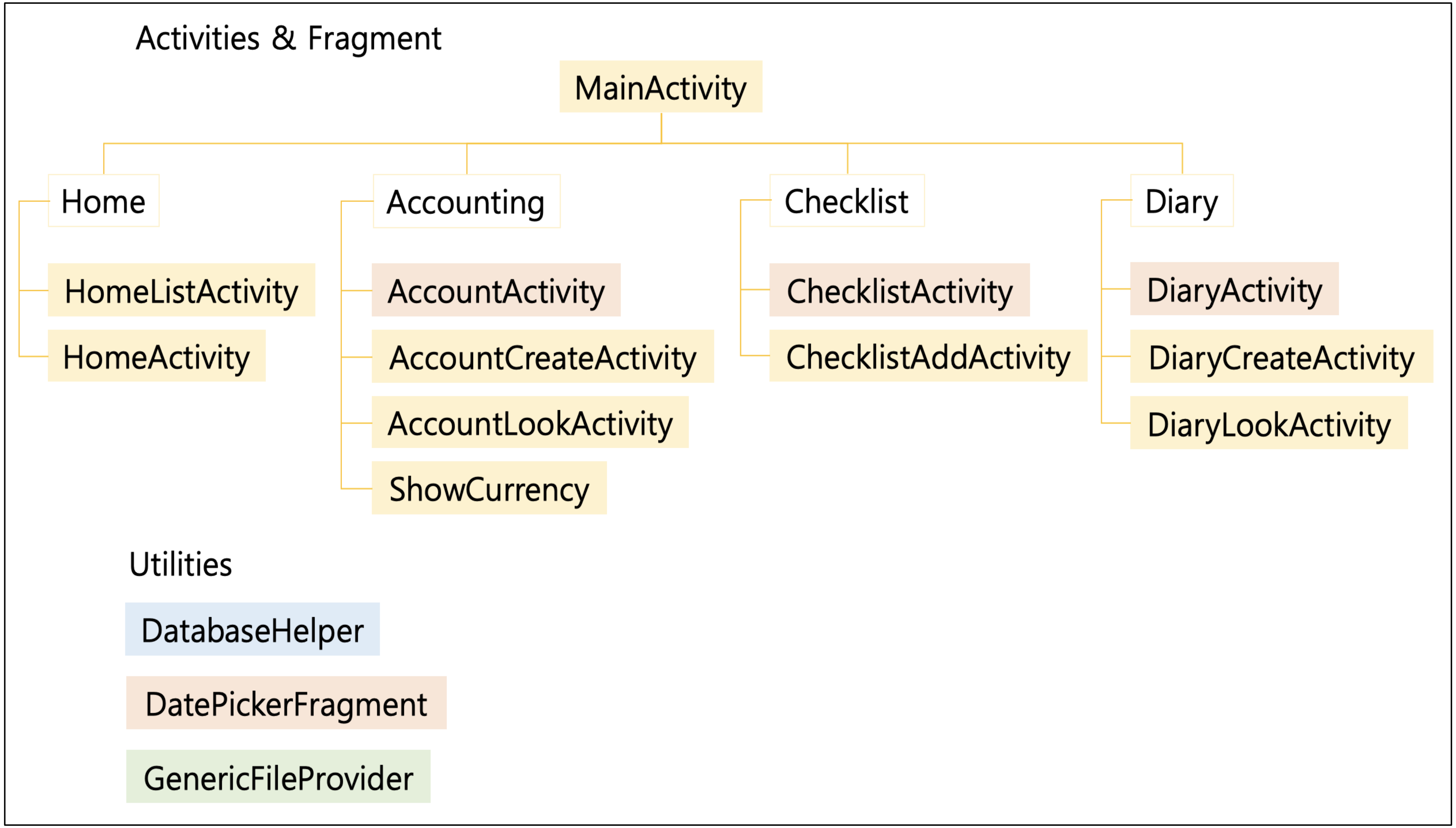
- **Existing Travel Apps**
  They can record the expenditures by currencies, however, does not provide the calculation function

- **Existing Dutch Pay App**
  They provide the calculation for the fair payment, but impossible to consider the currency.

Functions

	Planned Functions	Completed Functions
Expenditure Record	O	O
Applying Exchange Rate	O	O
Calculating Accounting Book	O	O
Sharing Accounting Book	O	O
Checklist	O	O
Writing Diary	O	O
Editing & Deleting Diary	O	O
Sharing Diary	O	O
Administrating travels	O	O
Using Database	O	O
UI Design	O	O
Login	O	X
Sharing Travel with Friends	O	X

Code



Activities & Fragment

MainActivity

Home

HomeListActivity

HomeActivity

Accounting

AccountActivity

AccountCreateActivity

AccountLookActivity

ShowCurrency

Checklist

ChecklistActivity

ChecklistAddActivity

Diary

DiaryActivity

DiaryCreateActivity

DiaryLookActivity

Utilities

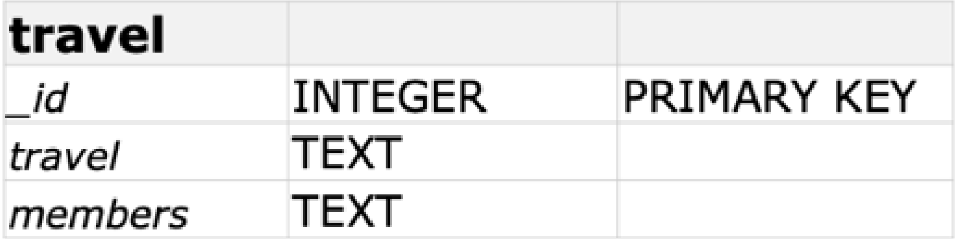
DatabaseHelper

DatePickerFragment

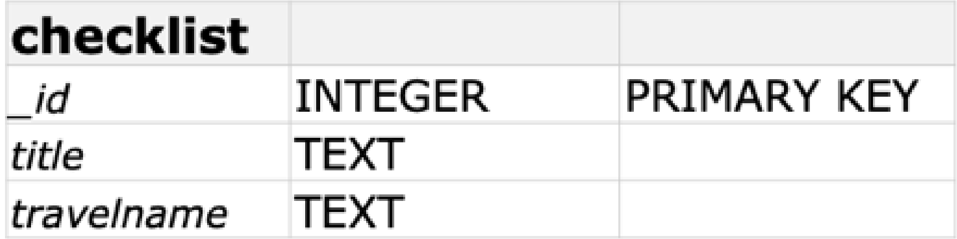
GenericFileProvider

Class Diagram

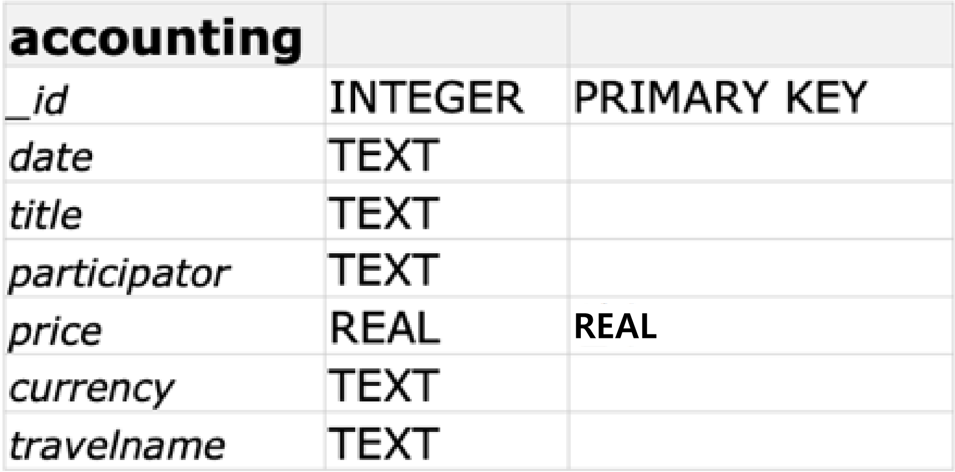
Code



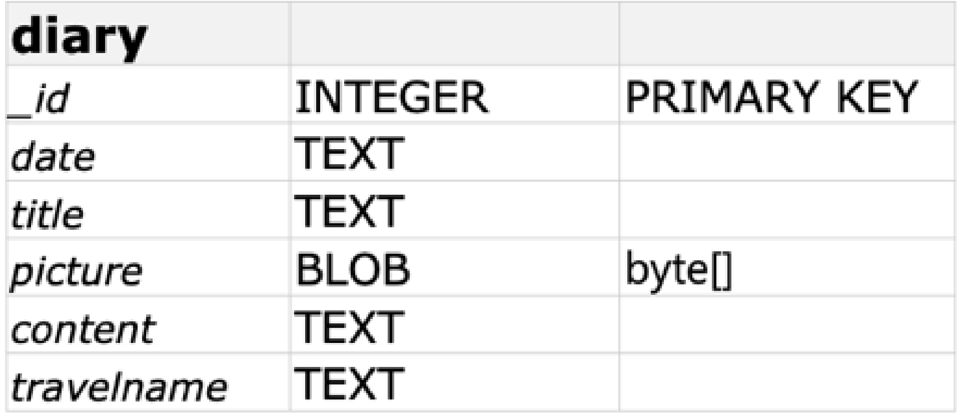
travel		
_id	INTEGER	PRIMARY KEY
travel	TEXT	
members	TEXT	



checklist		
_id	INTEGER	PRIMARY KEY
title	TEXT	
travelname	TEXT	



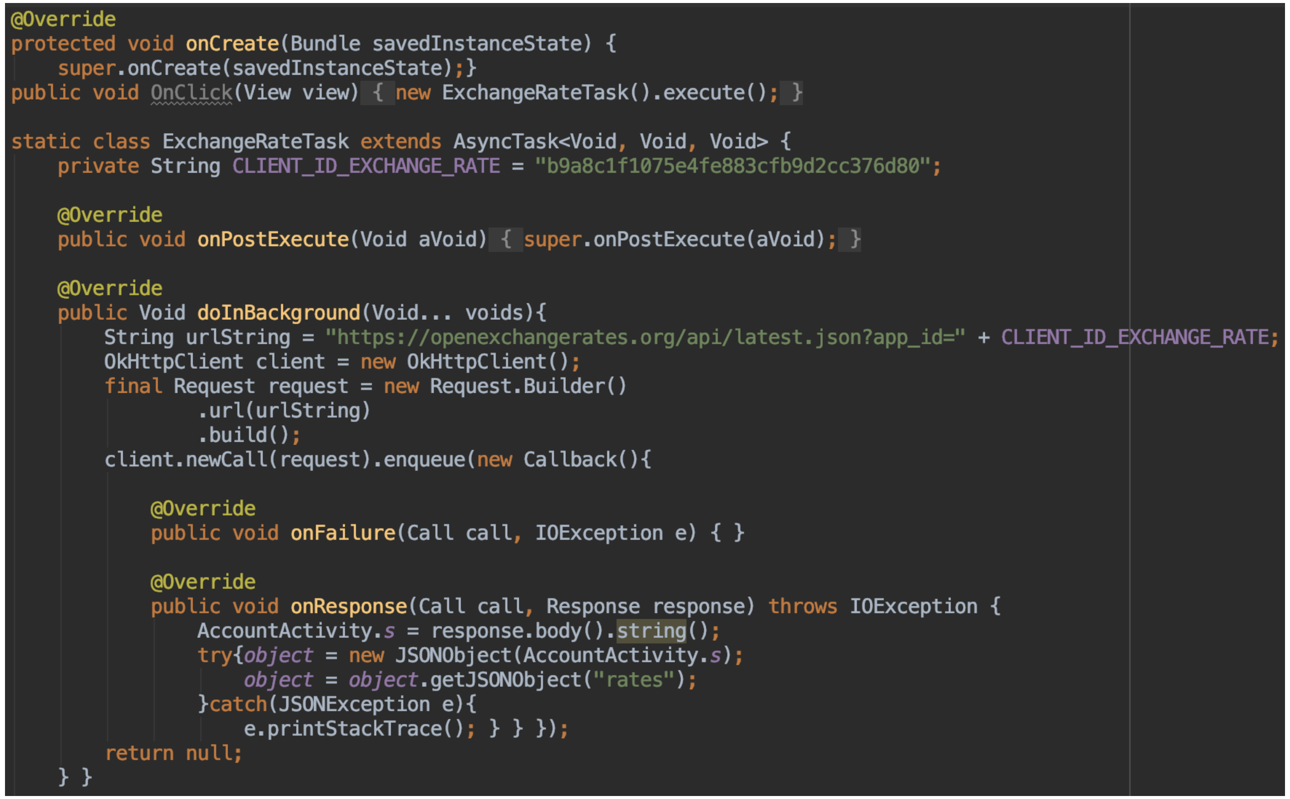
accounting		
_id	INTEGER	PRIMARY KEY
date	TEXT	
title	TEXT	
participator	TEXT	
price	REAL	REAL
currency	TEXT	
travelname	TEXT	



diary		
_id	INTEGER	PRIMARY KEY
date	TEXT	
title	TEXT	
picture	BLOB	byte[]
content	TEXT	
travelname	TEXT	

Database Structure

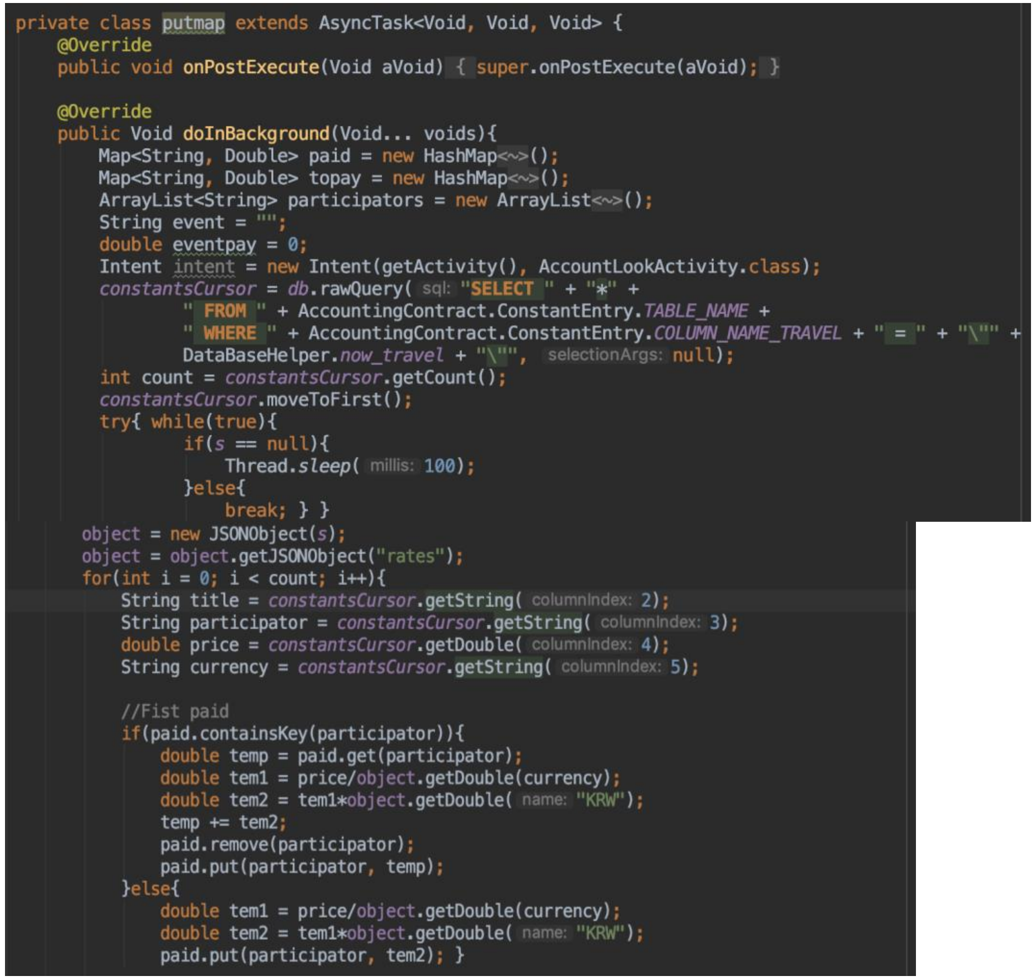
Code



```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);}
public void OnClick(View view) { new ExchangeRateTask().execute(); }

static class ExchangeRateTask extends AsyncTask<Void, Void, Void> {
    private String CLIENT_ID_EXCHANGE_RATE = "b9a8c1f1075e4fe883cfb9d2cc376d80";

    @Override
    public void onPostExecute(Void aVoid) { super.onPostExecute(aVoid); }

    @Override
    public Void doInBackground(Void... voids){
        String urlString = "https://openexchangerates.org/api/latest.json?app_id=" + CLIENT_ID_EXCHANGE_RATE;
        OkHttpClient client = new OkHttpClient();
        final Request request = new Request.Builder()
                .url(urlString)
                .build();
        client.newCall(request).enqueue(new Callback(){

            @Override
            public void onFailure(Call call, IOException e) { }

            @Override
            public void onResponse(Call call, Response response) throws IOException {
                AccountActivity.s = response.body().string();
                try{object = new JSONObject(AccountActivity.s);
                    object = object.getJSONObject("rates");
                }catch(JSONException e){
                    e.printStackTrace(); } } });
        return null;
    } }
```

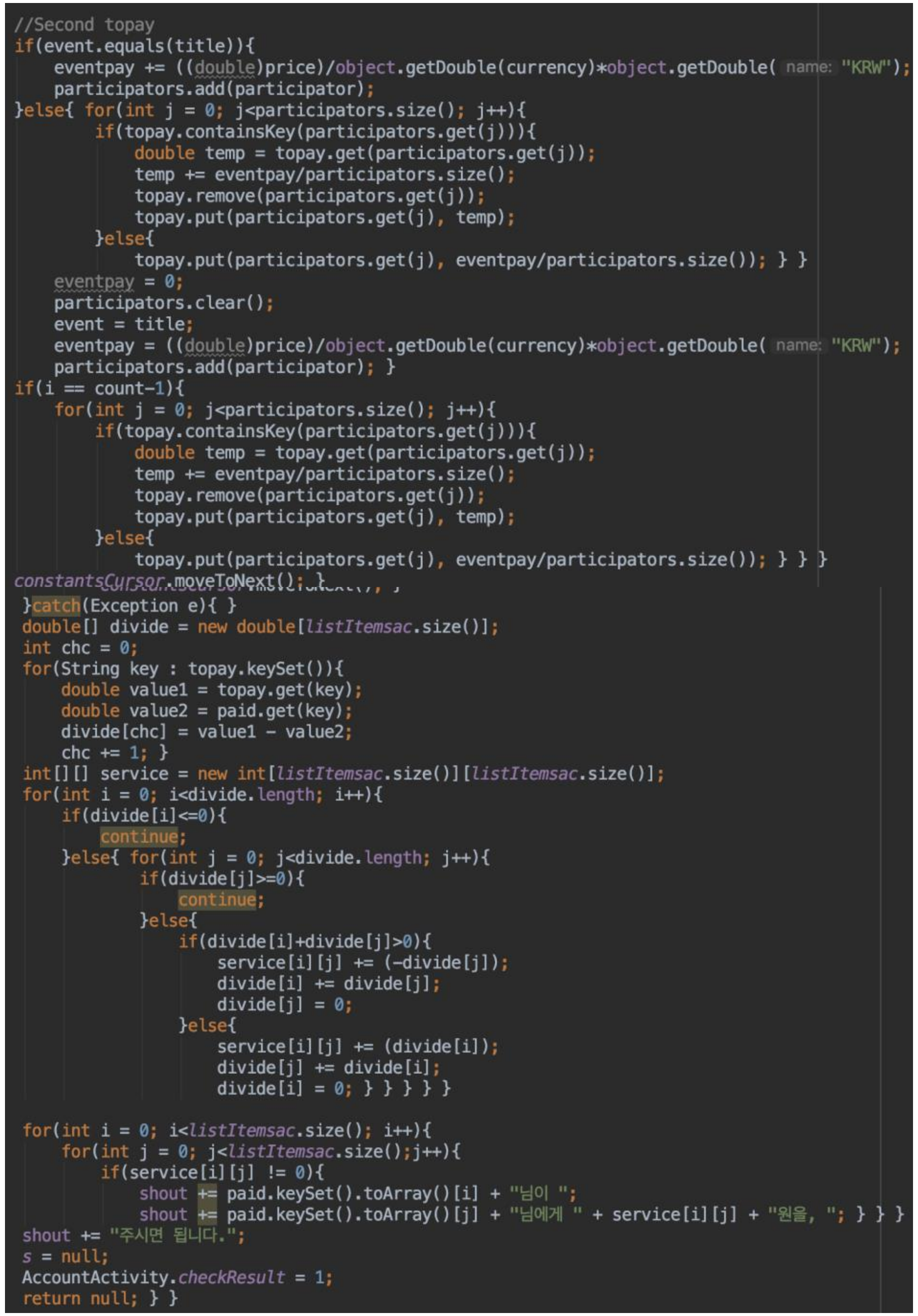
Getting the Exchange Rate

Code



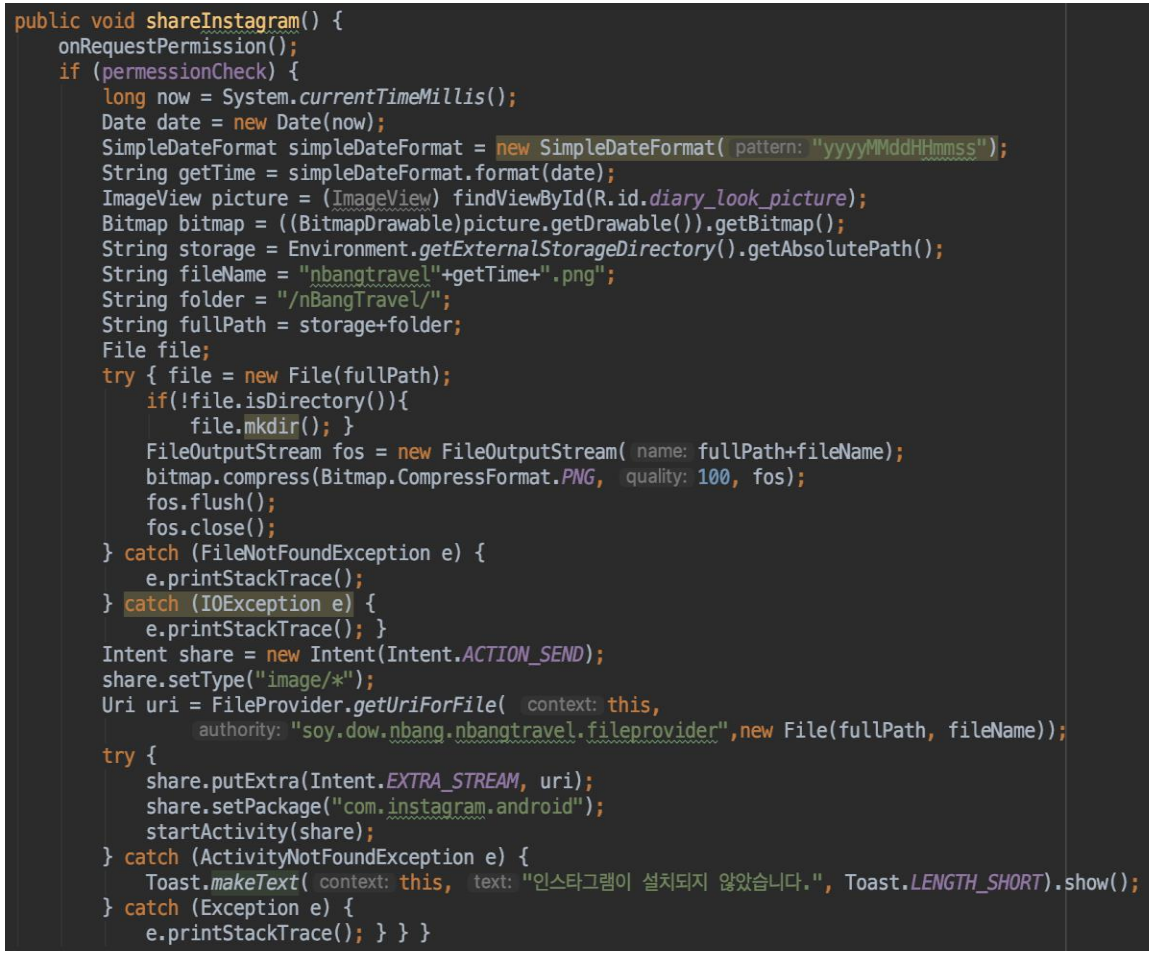
```java
private class putmap extends AsyncTask<Void, Void, Void> {
    @Override
    public void onPostExecute(Void aVoid) { super.onPostExecute(aVoid); }

    @Override
    public Void doInBackground(Void... voids){
        Map<String, Double> paid = new HashMap<~>();
        Map<String, Double> topay = new HashMap<~>();
        ArrayList<String> participators = new ArrayList<~>();
        String event = "";
        double eventpay = 0;
        Intent intent = new Intent(getActivity(), AccountLookActivity.class);
        constantsCursor = db.rawQuery( sql: "SELECT " + "*" +
                " FROM " + AccountingContract.ConstantEntry.TABLE_NAME +
                " WHERE " + AccountingContract.ConstantEntry.COLUMN_NAME_TRAVEL + " = " + "\"" +
                DataBaseHelper.now_travel + "\"",  selectionArgs: null);
        int count = constantsCursor.getCount();
        constantsCursor.moveToFirst();
        try{ while(true){
                if(s == null){
                    Thread.sleep( millis: 100);
                }else{
                    break; } }
          object = new JSONObject(s);
          object = object.getJSONObject("rates");
          for(int i = 0; i < count; i++){
              String title = constantsCursor.getString( columnIndex: 2);
              String participator = constantsCursor.getString( columnIndex: 3);
              double price = constantsCursor.getDouble( columnIndex: 4);
              String currency = constantsCursor.getString( columnIndex: 5);

              //Fist paid
              if(paid.containsKey(participator)){
                  double temp = paid.get(participator);
                  double tem1 = price/object.getDouble(currency);
                  double tem2 = tem1*object.getDouble( name: "KRW");
                  temp += tem2;
                  paid.remove(participator);
                  paid.put(participator, temp);
              }else{
                  double tem1 = price/object.getDouble(currency);
                  double tem2 = tem1*object.getDouble( name: "KRW");
                  paid.put(participator, tem2); }
```

Calculating Algorithm

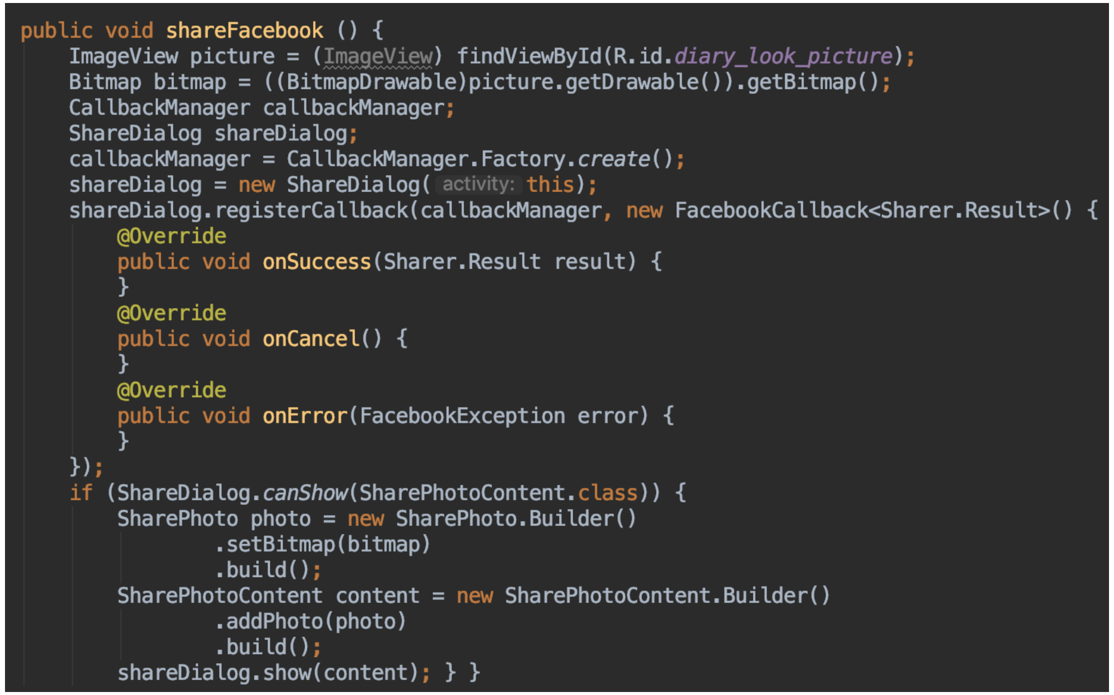


```java
//Second topay
if(event.equals(title)){
    eventpay += ((double)price)/object.getDouble(currency)*object.getDouble( name: "KRW");
    participators.add(participator);
}else{ for(int j = 0; j<participators.size(); j++){
        if(topay.containsKey(participators.get(j))){
            double temp = topay.get(participators.get(j));
            temp += eventpay/participators.size();
            topay.remove(participators.get(j));
            topay.put(participators.get(j), temp);
        }else{
            topay.put(participators.get(j), eventpay/participators.size()); } }
    eventpay = 0;
    participators.clear();
    event = title;
    eventpay = ((double)price)/object.getDouble(currency)*object.getDouble( name: "KRW");
    participators.add(participator); }
if(i == count-1){
    for(int j = 0; j<participators.size(); j++){
        if(topay.containsKey(participators.get(j))){
            double temp = topay.get(participators.get(j));
            temp += eventpay/participators.size();
            topay.remove(participators.get(j));
            topay.put(participators.get(j), temp);
        }else{
            topay.put(participators.get(j), eventpay/participators.size()); } } }
constantsCursor.moveToNext(); }
 }catch(Exception e){ }
 double[] divide = new double[listItemsac.size()];
 int chc = 0;
 for(String key : topay.keySet()){
     double value1 = topay.get(key);
     double value2 = paid.get(key);
     divide[chc] = value1 - value2;
     chc += 1; }
 int[][] service = new int[listItemsac.size()][listItemsac.size()];
 for(int i = 0; i<divide.length; i++){
     if(divide[i]<=0){
         continue;
     }else{ for(int j = 0; j<divide.length; j++){
             if(divide[j]>=0){
                 continue;
             }else{
                 if(divide[i]+divide[j]>0){
                     service[i][j] += (-divide[j]);
                     divide[i] += divide[j];
                     divide[j] = 0;
                 }else{
                     service[i][j] += (divide[i]);
                     divide[j] += divide[i];
                     divide[i] = 0; } } } } }

 for(int i = 0; i<listItemsac.size(); i++){
     for(int j = 0; j<listItemsac.size();j++){
         if(service[i][j] != 0){
             shout += paid.keySet().toArray()[i] + "님이 ";
             shout += paid.keySet().toArray()[j] + "님에게 " + service[i][j] + "원을, "; } } }
 shout += "주시면 됩니다.";
 s = null;
 AccountActivity.checkResult = 1;
 return null; } }
```

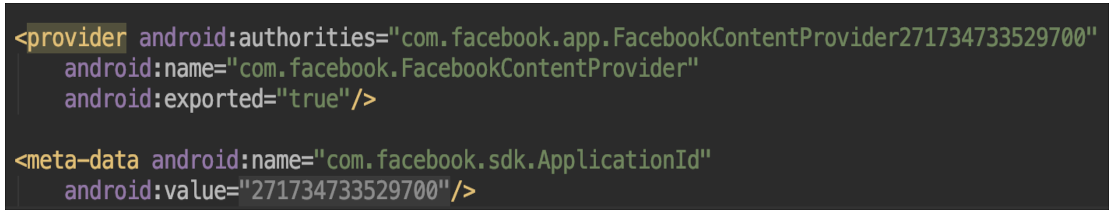
Code



```java
public void shareInstagram() {
    onRequestPermission();
    if (permessionCheck) {
        long now = System.currentTimeMillis();
        Date date = new Date(now);
        SimpleDateFormat simpleDateFormat = new SimpleDateFormat( pattern: "yyyyMMddHHmmss");
        String getTime = simpleDateFormat.format(date);
        ImageView picture = (ImageView) findViewById(R.id.diary_look_picture);
        Bitmap bitmap = ((BitmapDrawable)picture.getDrawable()).getBitmap();
        String storage = Environment.getExternalStorageDirectory().getAbsolutePath();
        String fileName = "nbangtravel"+getTime+".png";
        String folder = "/nBangTravel/";
        String fullPath = storage+folder;
        File file;
        try { file = new File(fullPath);
            if(!file.isDirectory()){
                file.mkdir(); }
            FileOutputStream fos = new FileOutputStream( name: fullPath+fileName);
            bitmap.compress(Bitmap.CompressFormat.PNG,  quality: 100, fos);
            fos.flush();
            fos.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace(); }
        Intent share = new Intent(Intent.ACTION_SEND);
        share.setType("image/*");
        Uri uri = FileProvider.getUriForFile( context: this,
                authority: "soy.dow.nbang.nbangtravel.fileprovider",new File(fullPath, fileName));
        try {
            share.putExtra(Intent.EXTRA_STREAM, uri);
            share.setPackage("com.instagram.android");
            startActivity(share);
        } catch (ActivityNotFoundException e) {
            Toast.makeText( context: this,  text: "인스타그램이 설치되지 않았습니다.", Toast.LENGTH_SHORT).show();
        } catch (Exception e) {
            e.printStackTrace(); } } }
```



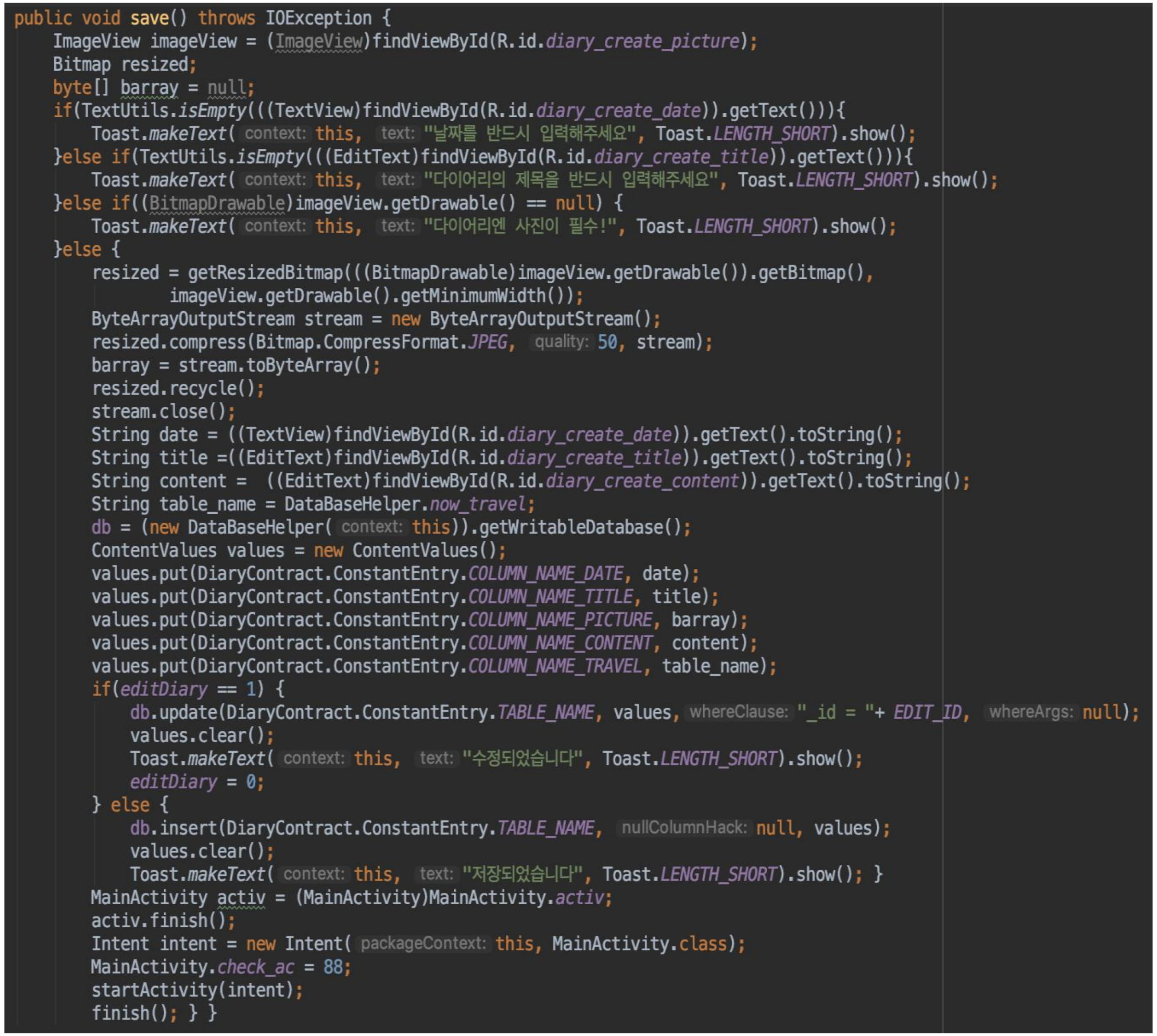
```java
public void shareFacebook () {
    ImageView picture = (ImageView) findViewById(R.id.diary_look_picture);
    Bitmap bitmap = ((BitmapDrawable)picture.getDrawable()).getBitmap();
    CallbackManager callbackManager;
    ShareDialog shareDialog;
    callbackManager = CallbackManager.Factory.create();
    shareDialog = new ShareDialog( activity: this);
    shareDialog.registerCallback(callbackManager, new FacebookCallback<Sharer.Result>() {
        @Override
        public void onSuccess(Sharer.Result result) {
        }
        @Override
        public void onCancel() {
        }
        @Override
        public void onError(FacebookException error) {
        }
    });
    if (ShareDialog.canShow(SharePhotoContent.class)) {
        SharePhoto photo = new SharePhoto.Builder()
                .setBitmap(bitmap)
                .build();
        SharePhotoContent content = new SharePhotoContent.Builder()
                .addPhoto(photo)
                .build();
        shareDialog.show(content); } }
```



```xml
<provider android:authorities="com.facebook.app.FacebookContentProvider271734733529700"
    android:name="com.facebook.FacebookContentProvider"
    android:exported="true"/>

<meta-data android:name="com.facebook.sdk.ApplicationId"
    android:value="271734733529700"/>
```

Sharing the diary using SNS

Code

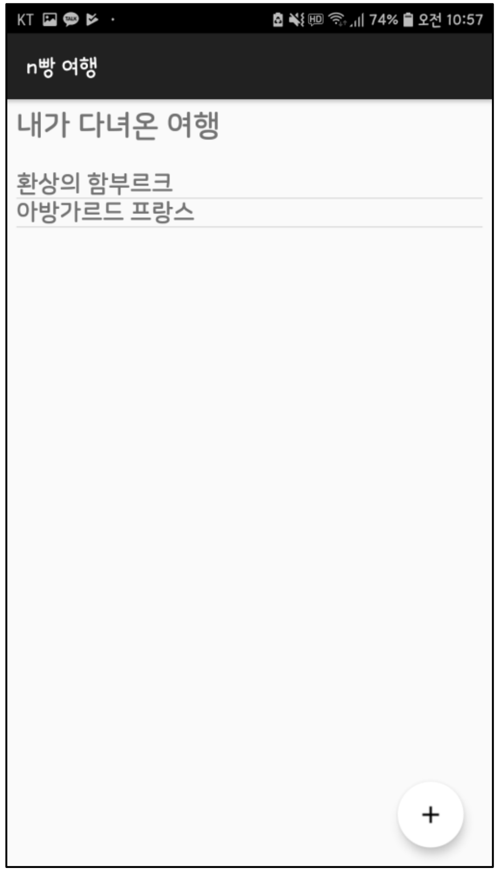


```
public void save() throws IOException {
    ImageView imageView = (ImageView)findViewById(R.id.diary_create_picture);
    Bitmap resized;
    byte[] barray = null;
    if(TextUtils.isEmpty(((TextView)findViewById(R.id.diary_create_date)).getText())){
        Toast.makeText( context: this,  text: "날짜를 반드시 입력해주세요", Toast.LENGTH_SHORT).show();
    }else if(TextUtils.isEmpty(((EditText)findViewById(R.id.diary_create_title)).getText())){
        Toast.makeText( context: this,  text: "다이어리의 제목을 반드시 입력해주세요", Toast.LENGTH_SHORT).show();
    }else if((BitmapDrawable)imageView.getDrawable() == null) {
        Toast.makeText( context: this,  text: "다이어리엔 사진이 필수!", Toast.LENGTH_SHORT).show();
    }else {
        resized = getResizedBitmap(((BitmapDrawable)imageView.getDrawable()).getBitmap(),
                imageView.getDrawable().getMinimumWidth());
        ByteArrayOutputStream stream = new ByteArrayOutputStream();
        resized.compress(Bitmap.CompressFormat.JPEG,  quality: 50, stream);
        barray = stream.toByteArray();
        resized.recycle();
        stream.close();
        String date = ((TextView)findViewById(R.id.diary_create_date)).getText().toString();
        String title =((EditText)findViewById(R.id.diary_create_title)).getText().toString();
        String content =  ((EditText)findViewById(R.id.diary_create_content)).getText().toString();
        String table_name = DataBaseHelper.now_travel;
        db = (new DataBaseHelper( context: this)).getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put(DiaryContract.ConstantEntry.COLUMN_NAME_DATE, date);
        values.put(DiaryContract.ConstantEntry.COLUMN_NAME_TITLE, title);
        values.put(DiaryContract.ConstantEntry.COLUMN_NAME_PICTURE, barray);
        values.put(DiaryContract.ConstantEntry.COLUMN_NAME_CONTENT, content);
        values.put(DiaryContract.ConstantEntry.COLUMN_NAME_TRAVEL, table_name);
        if(editDiary == 1) {
            db.update(DiaryContract.ConstantEntry.TABLE_NAME, values, whereClause: "_id = "+ EDIT_ID,  whereArgs: null);
            values.clear();
            Toast.makeText( context: this,  text: "수정되었습니다", Toast.LENGTH_SHORT).show();
            editDiary = 0;
        } else {
            db.insert(DiaryContract.ConstantEntry.TABLE_NAME,  nullColumnHack: null, values);
            values.clear();
            Toast.makeText( context: this,  text: "저장되었습니다", Toast.LENGTH_SHORT).show(); }
        MainActivity activ = (MainActivity)MainActivity.activ;
        activ.finish();
        Intent intent = new Intent( packageContext: this, MainActivity.class);
        MainActivity.check_ac = 88;
        startActivity(intent);
        finish(); } }
```

Saving the diary

(Storing diary contents in the database)

How to Use : add travel

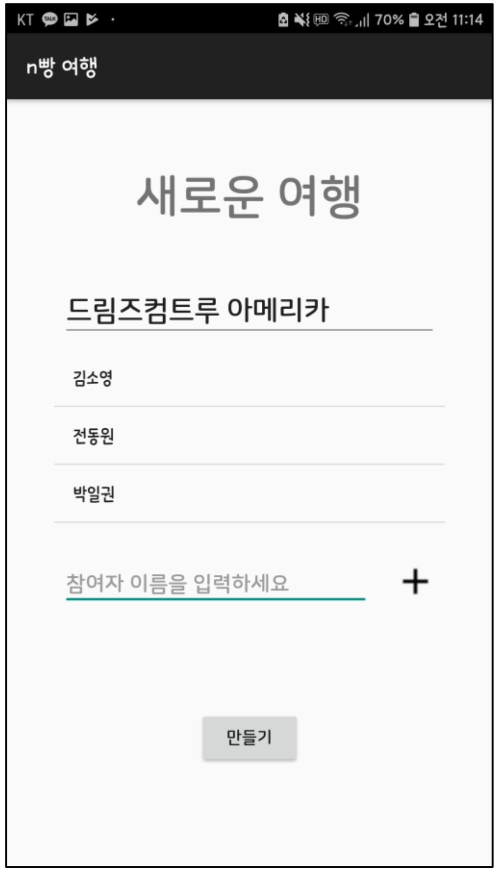


n빵 여행

내가 다녀온 여행

환상의 함부르크

아방가르드 프랑스



n빵 여행

새로운 여행

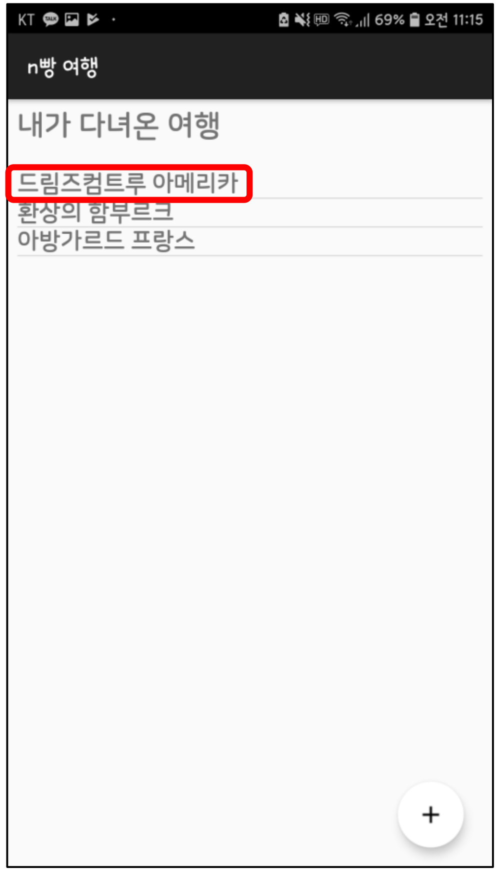
드림즈컴트루 아메리카

김소영

전동원

박일권

참여자 이름을 입력하세요



n빵 여행

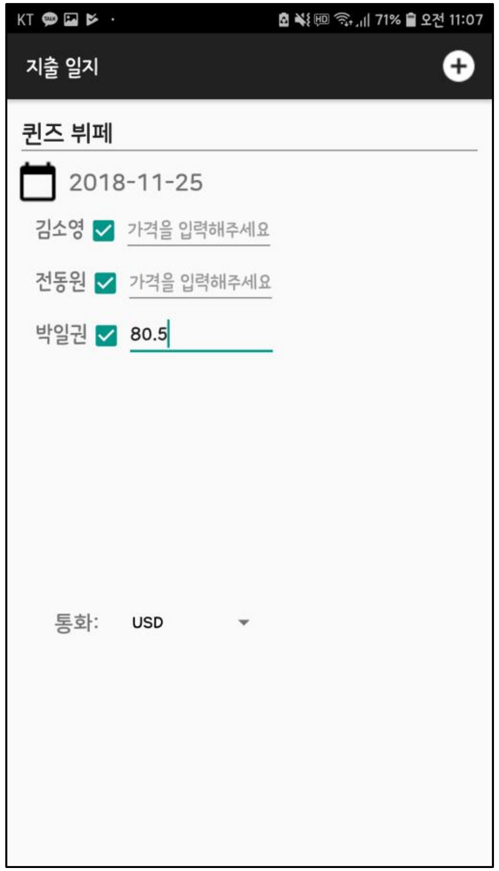
내가 다녀온 여행

드림즈컴트루 아메리카

환상의 함부르크

아방가르드 프랑스

How to Use : Accounting Book



퀸즈 뷔페

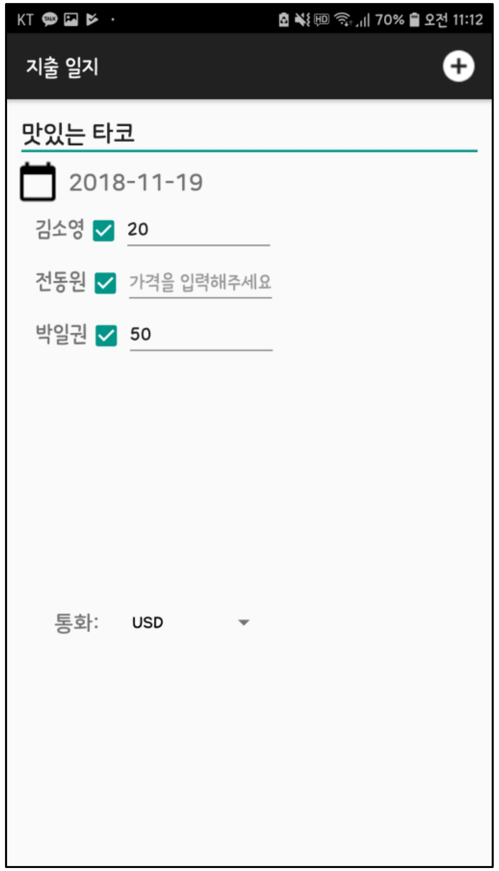
2018-11-25

김소영 ☑ 가격을 입력해주세요

전동원 ☑ 가격을 입력해주세요

박일권 ☑ 80.5

통화: USD



맛있는 타코

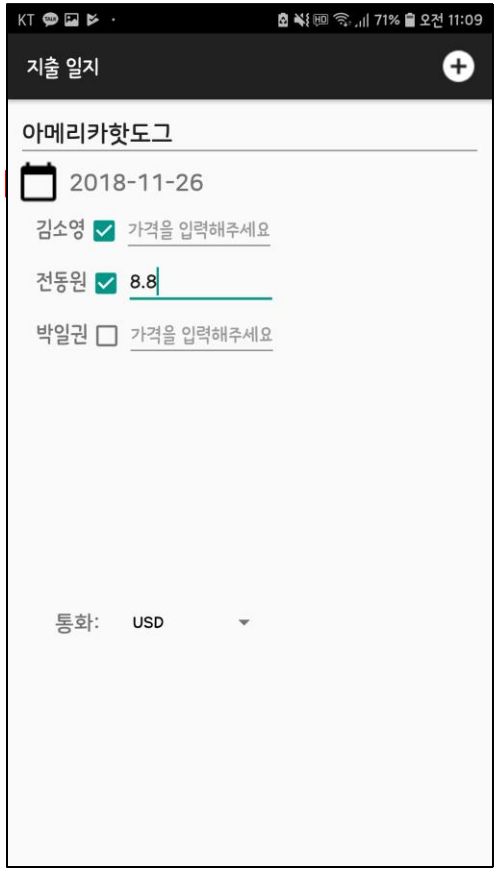
2018-11-19

김소영 ☑ 20

전동원 ☑ 가격을 입력해주세요

박일권 ☑ 50

통화: USD



아메리카핫도그

2018-11-26

김소영 ☑ 가격을 입력해주세요

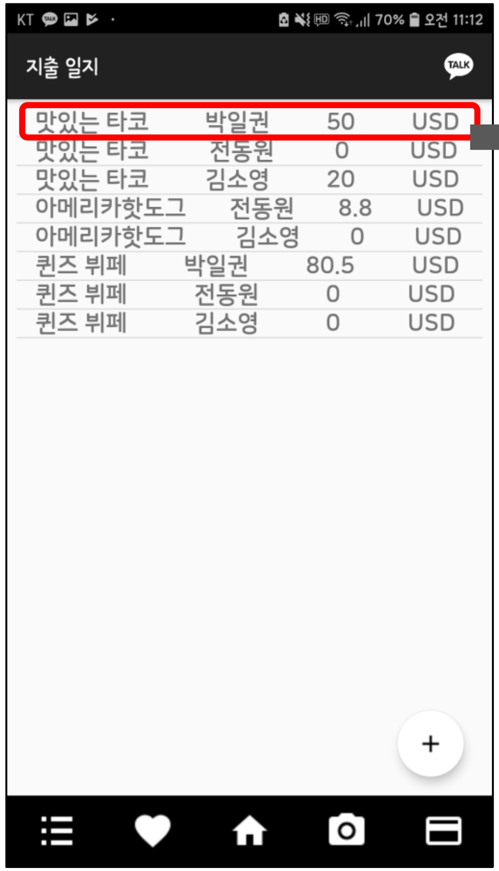
전동원 ☑ 8.8

박일권 ☐ 가격을 입력해주세요

통화: USD

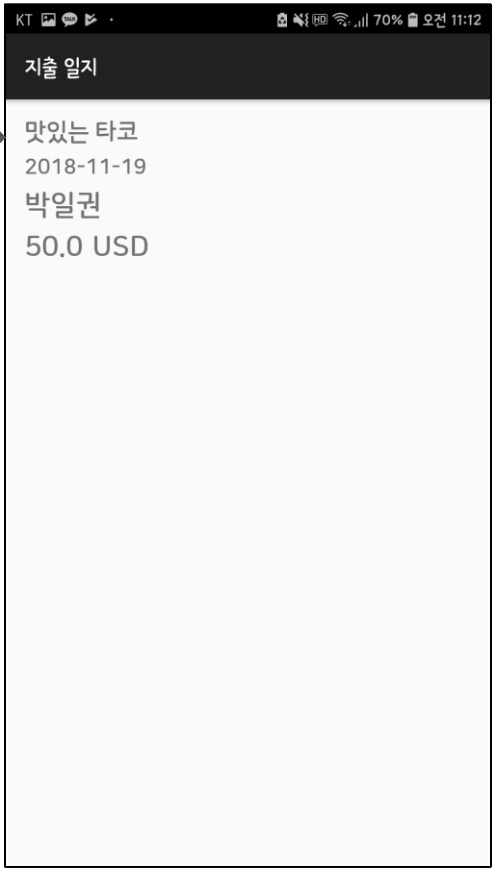
< 3 different situations>

How to Use : Accounting Book & Share



지출 일지

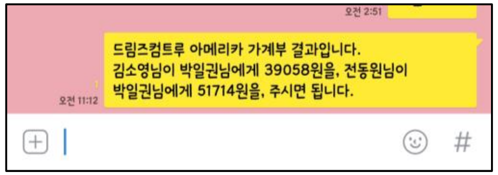
맛있는 타코	박일권	50	USD
맛있는 타코	전동원	0	USD
맛있는 타코	김소영	20	USD
아메리카핫도그	전동원	8.8	USD
아메리카핫도그	김소영	0	USD
퀸즈 뷔페	박일권	80.5	USD
퀸즈 뷔페	전동원	0	USD
퀸즈 뷔페	김소영	0	USD



지출 일지

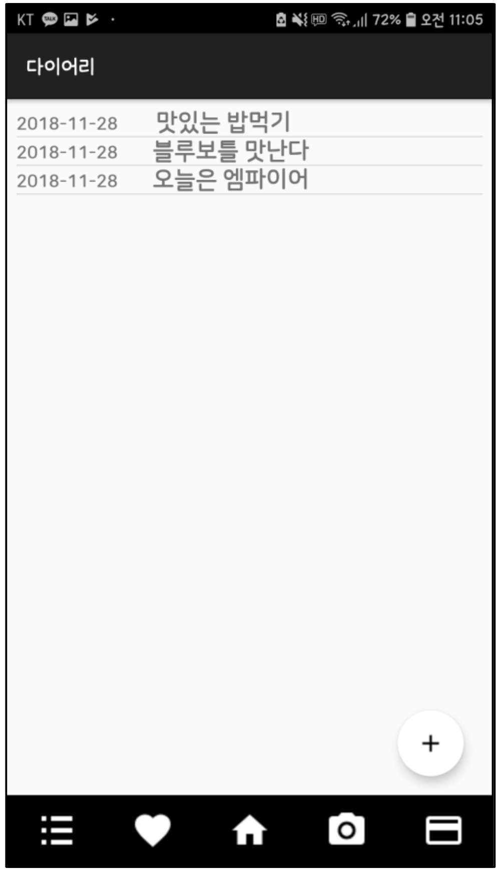
맛있는 타코
2018-11-19
박일권
50.0 USD

〈apply real-time currency exchange rate〉



드림즈컴트루 아메리카 가계부 결과입니다.
김소영님이 박일권님에게 39058원을, 전동원님이
박일권님에게 51714원을, 주시면 됩니다.

How to Use : Writing Diary



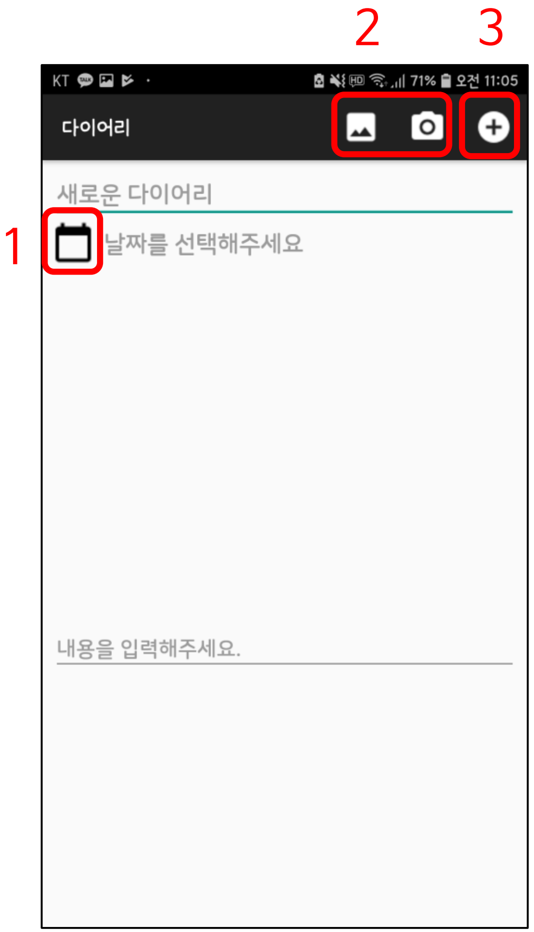
KT 72% 오전 11:05

다이어리

2018-11-28 맛있는 밥먹기

2018-11-28 블루보틀 맛난다

2018-11-28 오늘은 엠파이어



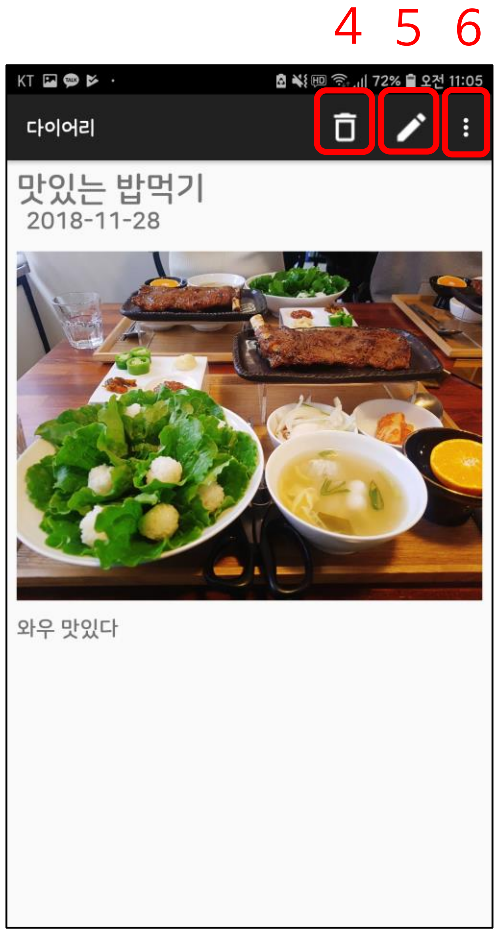
KT 71% 오전 11:05

다이어리

새로운 다이어리

날짜를 선택해주세요

내용을 입력해주세요.



KT 72% 오전 11:05

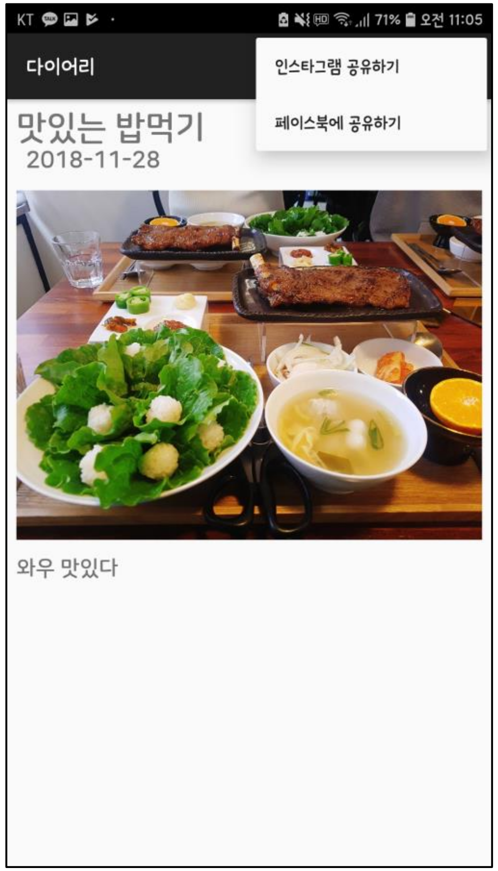
다이어리

맛있는 밥먹기

2018-11-28

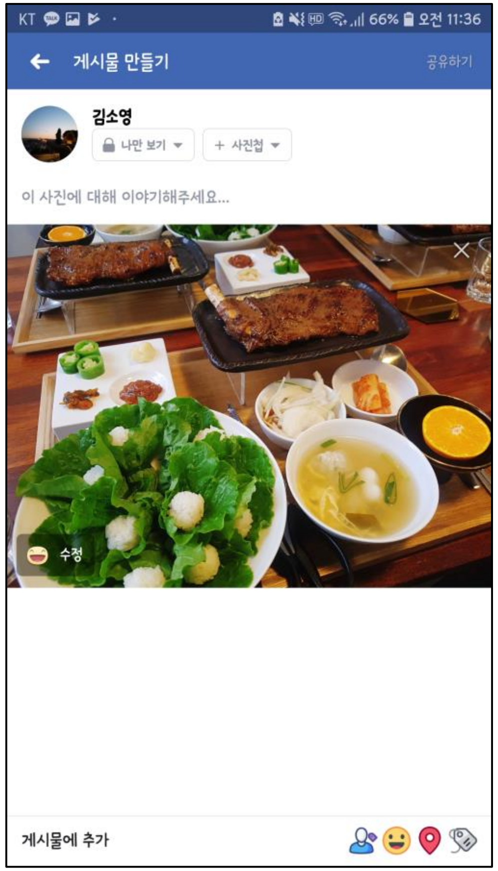
와우 맛있다

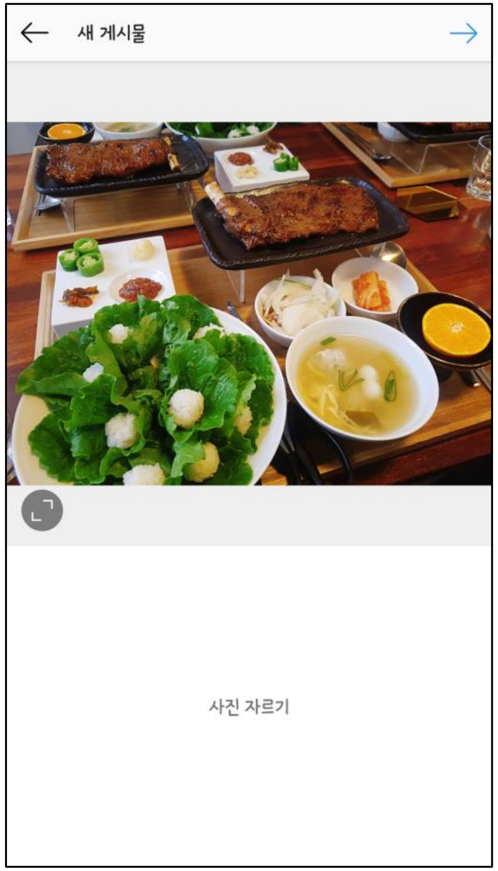
How to Use : sharing diary



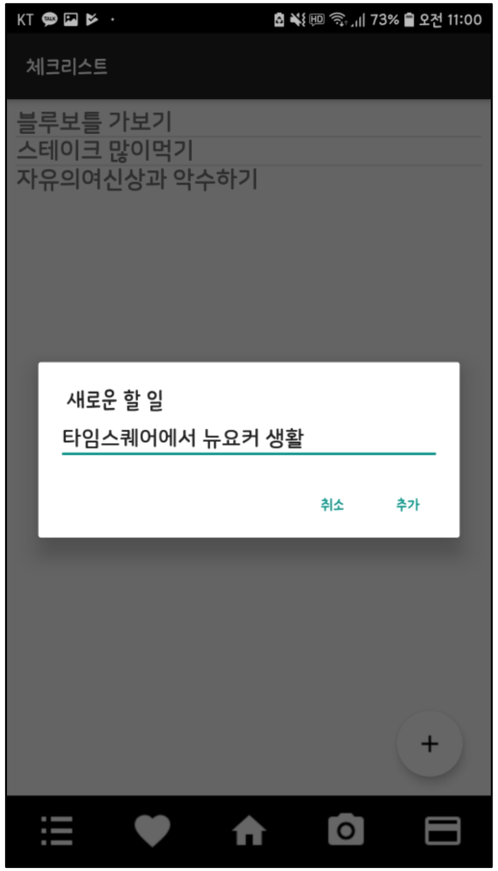
맛있는 밥먹기
2018-11-28

와우 맛있다





How to Use : Checklist



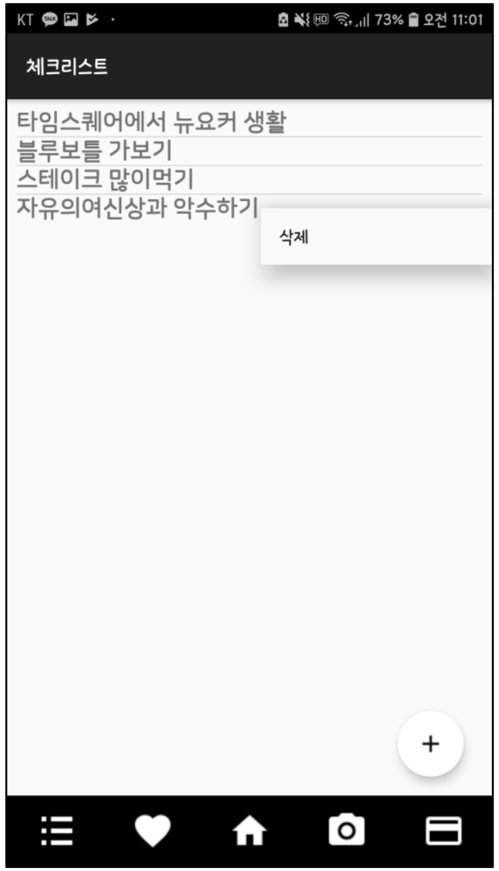
블루보틀 가보기

스테이크 많이먹기

자유의여신상과 악수하기

새로운 할 일

타임스퀘어에서 뉴요커 생활



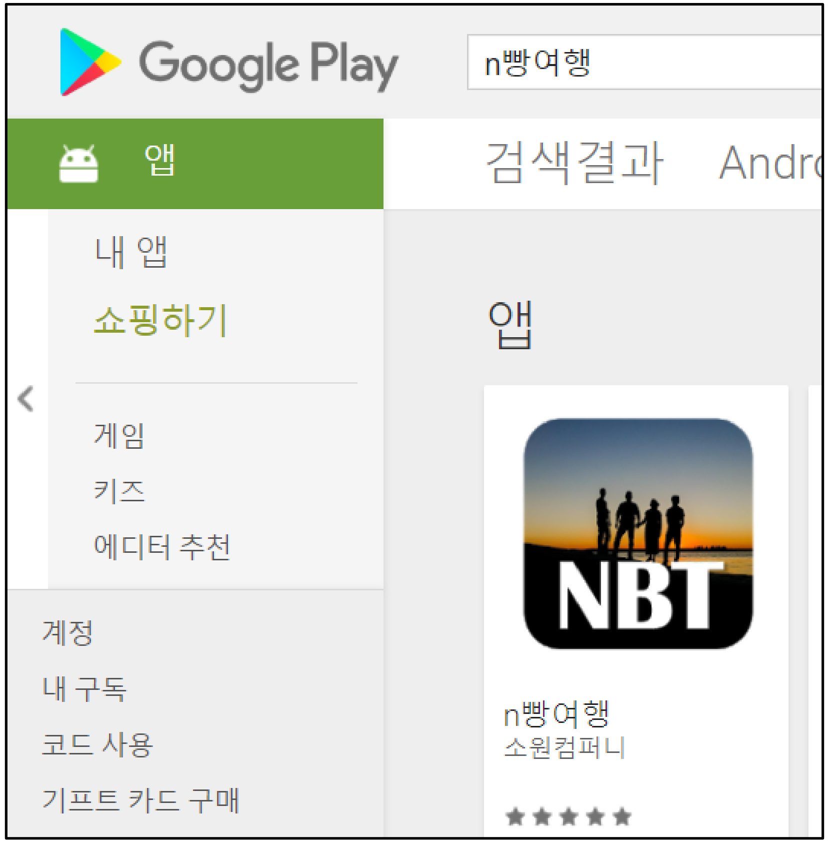
타임스퀘어에서 뉴요커 생활

블루보틀 가보기

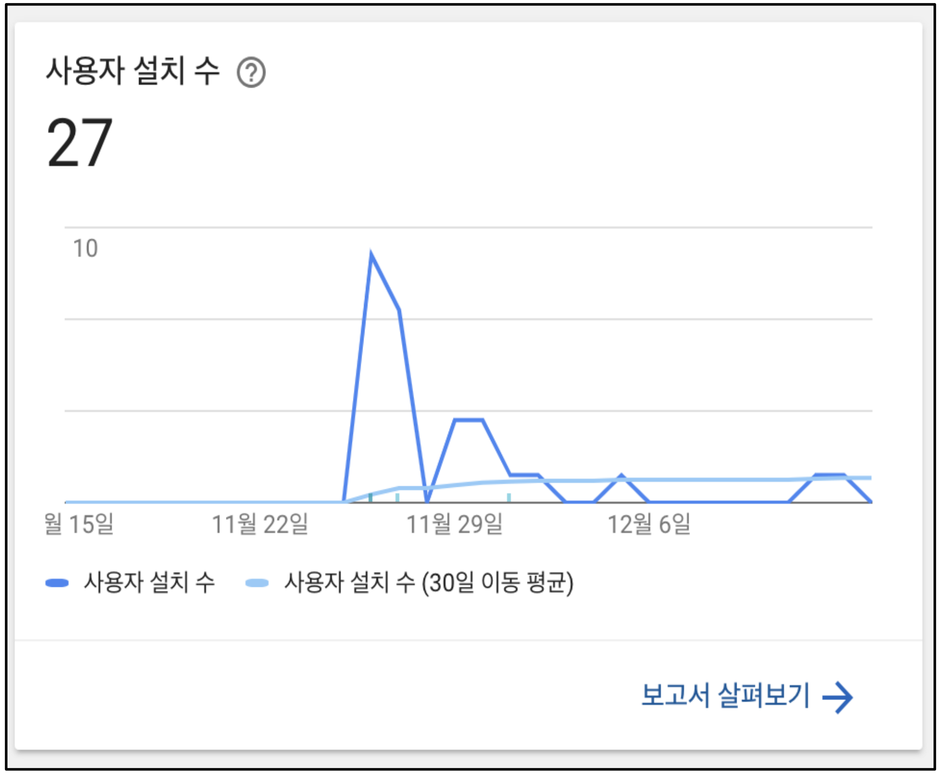
스테이크 많이먹기

자유의여신상과 악수하기

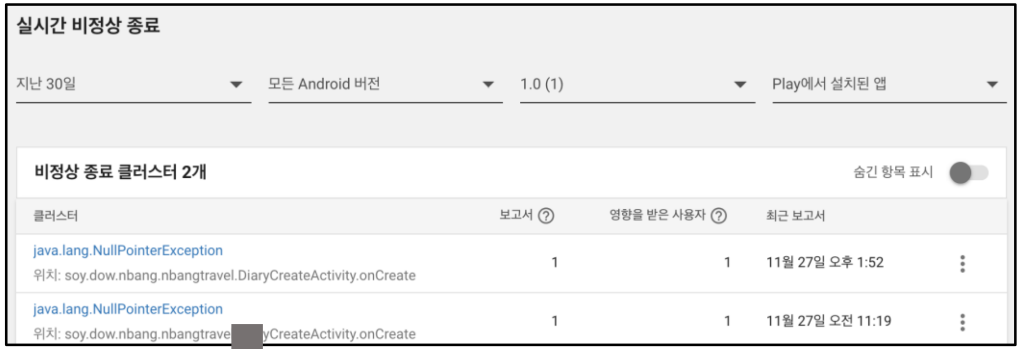
Release Result



n빵여행



Release Result

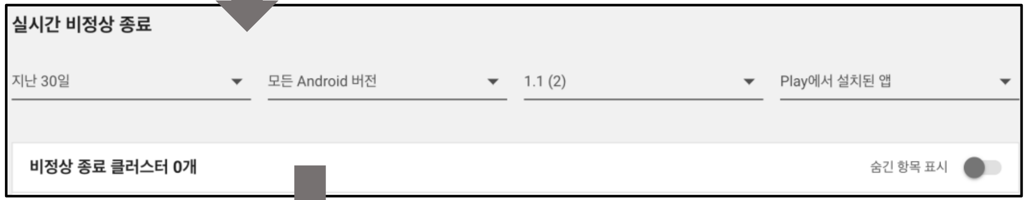


실시간 비정상 종료

지난 30일 · 모든 Android 버전 · 1.0 (1) · Play에서 설치된 앱

비정상 종료 클러스터 2개 — 숨긴 항목 표시

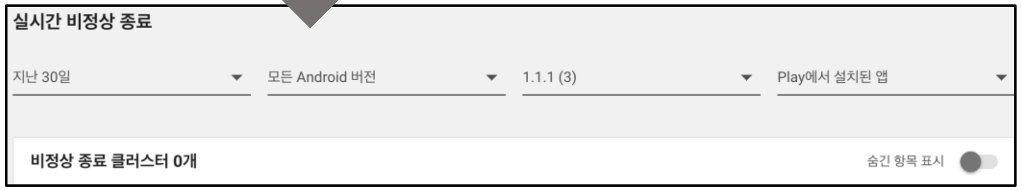
클러스터	보고서	영향을 받은 사용자	최근 보고서
java.lang.NullPointerException 위치: soy.dow.nbang.nbangtravel.DiaryCreateActivity.onCreate	1	1	11월 27일 오후 1:52
java.lang.NullPointerException 위치: soy.dow.nbang.nbangtrave yCreateActivity.onCreate	1	1	11월 27일 오전 11:19



실시간 비정상 종료

지난 30일 · 모든 Android 버전 · 1.1 (2) · Play에서 설치된 앱

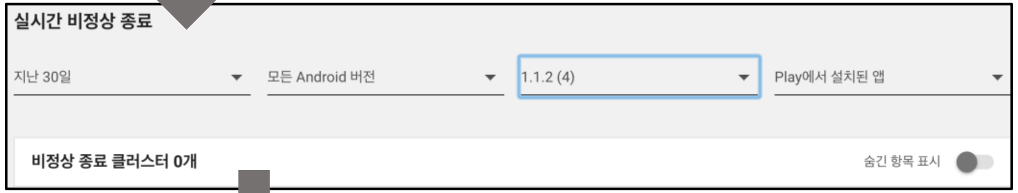
비정상 종료 클러스터 0개 — 숨긴 항목 표시



실시간 비정상 종료

지난 30일 · 모든 Android 버전 · 1.1.1 (3) · Play에서 설치된 앱

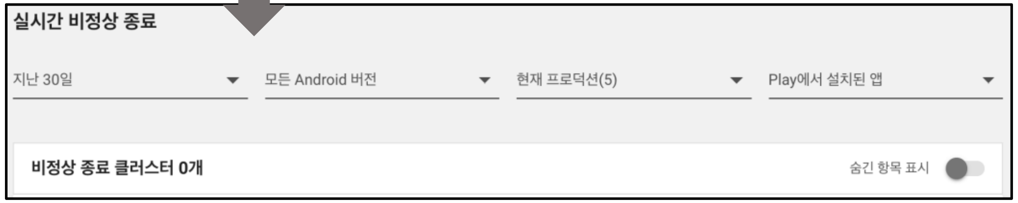
비정상 종료 클러스터 0개 — 숨긴 항목 표시



실시간 비정상 종료

지난 30일 · 모든 Android 버전 · 1.1.2 (4) · Play에서 설치된 앱

비정상 종료 클러스터 0개 — 숨긴 항목 표시



실시간 비정상 종료

지난 30일 · 모든 Android 버전 · 현재 프로덕션(5) · Play에서 설치된 앱

비정상 종료 클러스터 0개 — 숨긴 항목 표시

There are no abnormal terminations from November 28th

THE END