

This project is a simple Java application designed to replicate the logic from an Android reverse engineering challenge. The goal is to compute a secret flag based on a hidden seed string using a custom algorithm extracted from the original APK.

tool: jadx-gui

How It Works The Main class serves as the entry point.

It prints a greeting, defines the seed string ("1dnr@"), and calls makeFlag() from the FlagGenerator class.

The makeFlag() method performs a series of string manipulations to generate a flag based on the seed.

The screenshot shows two windows of the jadx-gui tool. The top window displays the MainActivity.java code, which contains a makeFlag() method that performs string manipulation on a seed string. The bottom window displays the resources.arsc file, specifically the strings.xml section, which contains various resource strings related to date pickers and notifications.

MainActivity.java

```
1 package com.example.basic_rev;
2 import android.app.Activity;
3 import android.os.Bundle;
4 import android.view.View;
5 import android.widget.Button;
6 import android.widget.EditText;
7 import android.widget.Toast;
8
9 // loaded from: classes1.dex
10 public class MainActivity extends Activity {
11     Button b1;
12     EditText edi;
13
14     public String makeFlag(String s) {
15         String _a = "" + s.charAt(0);
16         String _b = s.charAt(2) + "";
17         for (int s_ = 0; s_ < s.length(); s_++) {
18             String _b2 = s.substring(_b.length()) - s_) + _b.substring(s_);
19             String _b = _b + s.charAt(s_ - 3) + ":" + _b + s.charAt(s.length() - (3 - s_)) + "";
20             if (s_ == _b2.length()) {
21                 _b = _b2.length();
22             } else if (s_.length() >= _b2.length()) {
23                 _b = _b2 + s.charAt(s.length() - (_b2.length() - s_)) + "";
24             } else {
25                 _b = _b2 + s.charAt(s.length() - ((_b2.length() - s_) - s.length())) + "";
26             }
27             _a = _b + s.charAt(((s.length() + _b.length()) * s_) + _b.length()) * b.length());
28         }
29         return _a.substring(0, 2) + s.charAt(3) + _a.charAt(3) + "!" + _a.substring(5, 7);
30     }
31
32     @Override // android.app.Activity
33     protected void onCreate(Bundle savedInstanceState) {
34         super.onCreate(savedInstanceState);
35         setContentView(R.layout.activity_main);
36         this.b1 = (Button) findViewById(R.id.button);
37         this.edi = (EditText) findViewById(R.id.editText);
38         final String seed = getString(R.string.seed);
39         this.b1.setOnClickListener(new View.OnClickListener() { // from class: com.example.basic_rev.MainActivity
40             @Override // android.view.View.OnClickListener
41             public void onClick(View v) {
42                 if (MainActivity.this.edi.getText().toString().equals(MainActivity.this.makeFlag(seed))) {
43                     Toast.makeText(MainActivity.this.getApplicationContext(), "Well played! You can validate now with this password :)", 0).show();
44                 } else {
45                     Toast.makeText(MainActivity.this.getApplicationContext(), "Try again ;)", 0).show();
46                 }
47             }
48         });
49     }
50 }
51 }
```

resources.arsc/res/values/strings.xml

```
<resources>
<string name="material_timepicker_hour">hour</string>
<string name="material_timepicker_minute">minute</string>
<string name="material_timepicker_pm">pm</string>
<string name="material_timepicker_select_time">Select time</string>
<string name="material_timepicker_text_input_mode_description">Switch to text input mode for the time input.</string>
<string name="material_numberless_content_description">New notification</string>
<string name="mtrl_chip_close_icn_content_description">Remove</string>
<string name="mtrl_chip_remove_icn_content_description">Remove more than 15d new notifications</string>
<string name="mtrl_exceed_max_badge_number">Max badge number</string>
<string name="mtrl_picker_ally_next_month">Change to next month</string>
<string name="mtrl_picker_ally_prev_month">Change to previous month</string>
<string name="mtrl_picker_announce_current_selection">Current selection: %s</string>
<string name="mtrl_picker_cancel">Cancel</string>
<string name="mtrl_picker_cancel_desc">Cancel</string>
<string name="mtrl_picker_date_header_selected">%s</string>
<string name="mtrl_picker_date_header_title">Select date</string>
<string name="mtrl_picker_date_header_unselected">Selected date</string>
<string name="mtrl_picker_day_of_week_column_header">Column of days: %s</string>
<string name="mtrl_picker_date_header_unselected_desc">Current date - End date</string>
<string name="mtrl_picker_invalid_format_error">Example: %s</string>
<string name="mtrl_picker_invalid_range_use">use %s</string>
<string name="mtrl_picker_invalid_range">Invalid range</string>
<string name="mtrl_picker_navigate_to_year_description">Navigate to year %s</string>
<string name="mtrl_picker_out_of_range_desc">Out of range %s</string>
<string name="mtrl_picker_out_of_range_desc_start_end">Start date - End date - %s</string>
<string name="mtrl_picker_range_header_only_start_selected">%s - End date</string>
<string name="mtrl_picker_range_header_title">Select Range</string>
<string name="mtrl_picker_range_header_unselected">Start date - End date</string>
<string name="mtrl_picker_selection_text_input_date_hint">date</string>
<string name="mtrl_picker_text_input_date_range_end_hint">End date</string>
<string name="mtrl_picker_text_input_date_range_start_hint">Start date</string>
<string name="mtrl_picker_text_input_day_abbr">d</string>
<string name="mtrl_picker_text_input_month_abbr">m</string>
<string name="mtrl_picker_toggle_to_calendar_input_mode">Switch to calendar input mode</string>
<string name="mtrl_picker_toggle_to_day_selection">Tap to switch to selecting a day</string>
<string name="mtrl_picker_toggle_to_text_input_mode">Switch to text input mode</string>
<string name="mtrl_picker_toggle_to_year_selection">Tap to switch to selecting a year</string>
<string name="mtrl_picker_toggle_content_desc_opt1">Show password</string>
<string name="path_password_eye">M32,4,5,2,73,7,61,1,22C1,73,4,39,6,7,5,11,7,59,27,-3,11,11,-7,5C-1,73,-4,39,-6,-7,5,-11,-7,5ZM12,17C-2,7</string>
<string name="path_password_eye_mask_strike_through">H2,4,27,L19,73,22,L22,27,19,46,L4,54,1,73,L4,54,1,L23,3,L23,23,L1,23,L1,4,27,Z</string>
<string name="path_password_eye_mask_visible">H2,4,27,L2,4,27,L4,54,1,73,L4,54,1,L23,1,L23,23,L1,23,L1,4,27,Z</string>
<string name="path_password_strike_through">H3,27,4,27,L19,74,20,74</string>
<string name="path_search_menu">Search</string>
<string name="seed">1dnr@</string>
<string name="status_bar_notification_info_overflow">999+</string>
</resources>
```