Notes.
Forensics and Stego.

Summary:

Android:

apktool

Use debug mode to decode the apl file:

```
apktool d an_android_app.apk
```

dex2jar

Unpack the apk file, and run dex2jar on classes.dex file:

```
d2j-dex2jar an_android_app/classes.dex
```

jadx-gui

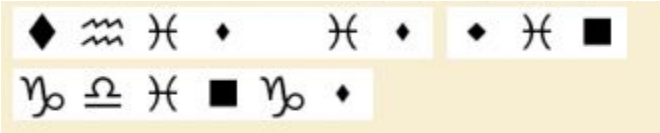
View the source of the classes:

- Import the apk

Encoding and Decoding:

Wingdings:

Sample:

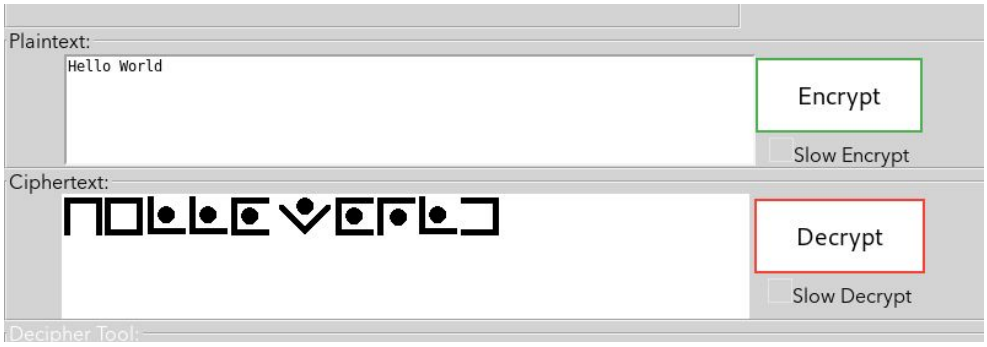


Decoding tool:

https://www.dcode.fr/wingdings-font

PigPen:

Sample:



Encoding and Decoding tool:

https://crypto.interactive-maths.com/pigpen-cipher.html

Aurebesh Translator:

Sample:

Encoding Tool:

https://lingojam.com/AurebeshTranslator

CyberChef: Swiss Army Knife Encoding and Decoding Tool

Supported Functions:

1. base64, base32, etc.

2. Caesar Cipher
3. ROT13, ROT47
4. XOR, Morse, Vignere, Atbash, Bacon Cipher, etc.

Allows user to apply multiple functions sequentially

Link: https://gchq.github.io/CyberChef/

Hidden Binary Cipher:

Sample:

The chicken crossed The road

the chicken Crossed the road

the chicken crossed The road

The chicken crossed the Road

the chicken Crossed the road

The chicken crossed The Road

Decoding:

Capitals are 1s, and lowercase are 0s

The chicken crossed The road	10010	18	S
the chicken Crossed the road	00100	4	E
the chicken crossed The road	00010	2	C
The chicken crossed the Road	10001	17	R
the chicken Crossed the road	00100	4	E
The chicken crossed The Road	10011	19	T

BrainF*ck:

Sample: Hello World

+[-[<<[+[--->]-[<<<]]]>>>-]>-.---.>..>.<<<<-.<+.>>>>>.>.<<.<-.

Interpreter:

https://copy.sh/brainfuck/

Web:

JSF*ck:

Sample: Hello World

Wiki:

https://esolangs.org/wiki/JSFuck

Interpreter:

https://enkhee-osiris.github.io/Decoder-JSFuck/

Stego & File Formatting:

- List of File Signatures: https://en.wikipedia.org/wiki/List_of_file_signatures
- Stego Tools: steghide, binwalk,exiftool ...
- GIMP: Change exposure to reveal things hidden in the image.
- Use sonic visualiser to reveal patterns in the sound waves

List all the file types in a folder:

```
for i in $(ls); do file "$i"; done > file_typest.txt
```