WRITE UP

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Challenge 1

1. Decompile the apk on https://www.decompiler.com/ (or any other decompiler of your choice)
2. grep -r "CTF{"

Flag: CTF{flag_in_sursa}

Challenge 2

1. Launch the Level 2 activity (via the app).

2. Open a terminal and run:

adb logcat | grep CTF
or, if using Android Studio:
Open Logcat (bottom of Android Studio).
Filter logs by CTF or your app's package name.
Find the following line:
I/Level2Activity: The flag is: CTF{flag_from_logs}

3. Copy the flag and paste it into the app's input box.

Press "Verify" — it should say "Flag corect!"

Challenge 3

Tools Needed:

- APKTool (to decompile resources)
- JADX (to decompile APK to Java source)
- Or Android Studio with the source, if allowed

Steps to Solve:

1. Decompile the APK using JADX:

   jadx-gui your_app.apk
2. Open Level3Activity.java (or similar).

3. Find a block like this:

```
char[] expected = new char[] {
'C', 'T', 'F', '{',
(char) ('a' + 2), // c
(char) ('e' + 1), // f
'u', 'n',
(char) ('j' + 1), // k
'_', 'c', 'o', 'd', 'e', '}', '\0'
};
```

4. Resolve each character expression manually:

```
'a' + 2 = 'c'
'e' + 1 = 'f'
'j' + 1 = 'k'
```

Flag:

"CTF{cfunk_code}"

5. Input this flag into the app.
6. Press "Verify" — you should see "Flag corect!"

Challenge 4

Tools Needed:

- APKTool (to decompile resources)
- JADX (to decompile APK to Java source)
- Or Android Studio with the source, if allowed
- Crackstation (or any other online tool that allows to decrypt hashes)

Steps to Solve:

1. Decompile the APK using JADX:

```
jadx-gui your_app.apk
```

2. Open Level4Activity.java.
3. Find the SHA-256 hash.
4. Copy and paste the hash in CrackStation

5. The value in plain text is test
6. Submit the flag in the format: CTF{test}
7. Input this flag into the app.
8. Press "Verify" — you should see "Flag corect!"

Challenge 5

Tools Needed:

- APKTool (to decompile resources)
- JADX (to decompile APK to Java source)
- Or Android Studio with the source, if allowed

Steps to Solve:

9. Decompile the APK using JADX:

   ```
   jadx-gui your_app.apk
   ```

10. Open Level5Activity.java.
11. You will see that this challenge is about a .png file.
12. There is a comment which might help you.
13. The .png file is located in /app/src/main/res/drawable.
14. Submit the flag in the format: CTF{i_am_here_flag
15. Input this flag into the app
16. 16. Press "Verify" — you should see "Flag corect!"