

Practice 5

Deadline: Mar. 29th

In this practice, we'll write a program that determines the type of a given file.

Note that we can't always rely on file extensions to determine its type, since file extensions may be missing, or incorrect (e.g., an attacker may change a malicious `game.exe` into a seemingly innocent `game.txt`).

Instead, we may check the file header to help determine its type. Below are file headers for three different file types. See [here](#) for more details on file format and magic numbers.

File Type	File Header (Hex)
png	89504e47
zip or jar	504b0304
class	cafebabe

Please write a `FileTypeParser.java` to determine the type of a given file. Executing the program

```
java FileTypeParser 1
```

will give the following output

```
Filename: 1
File Header(Hex): [ca, fe, ba, be]
File Type: class
```

You should run the code on the given input files 1,2,3.

Evaluation

The practice will be checked by teachers or SAs. What will be tested:

1. That you understand every line of your own code, not just copy from somewhere
2. That your program compiles correctly (javac)
3. Correctness of the program logic
4. That the result is obtained in a reasonable time

Late submissions after the deadline will incur a 20% penalty, meaning that you can only get 80% of this practice's score.