File Integrity Monitor (FIM)

Start

Ask user what they want to do:
A.   Collect new Baseline, or
B.   Begin monitoring files with saved Baseline

Collect new Baseline
1.   Calculate HASH value from target files
2.   Store the file|hash pairs in **baseline.txt**

Begin monitoring files with saved Baseline
1.   Load file:hash pairs from **baseline.txt**

Continuously monitor file integrity
1.   Loop through each file target file, calculate the hash, and compare the file|hash to what is **baseline.txt**

Notify user if a file is changed or deleted
1.   If a file's actual hash is different than what is recorded in the baseline, print to the screen (color), if a file has been changed or deleted. (integrity compromise)
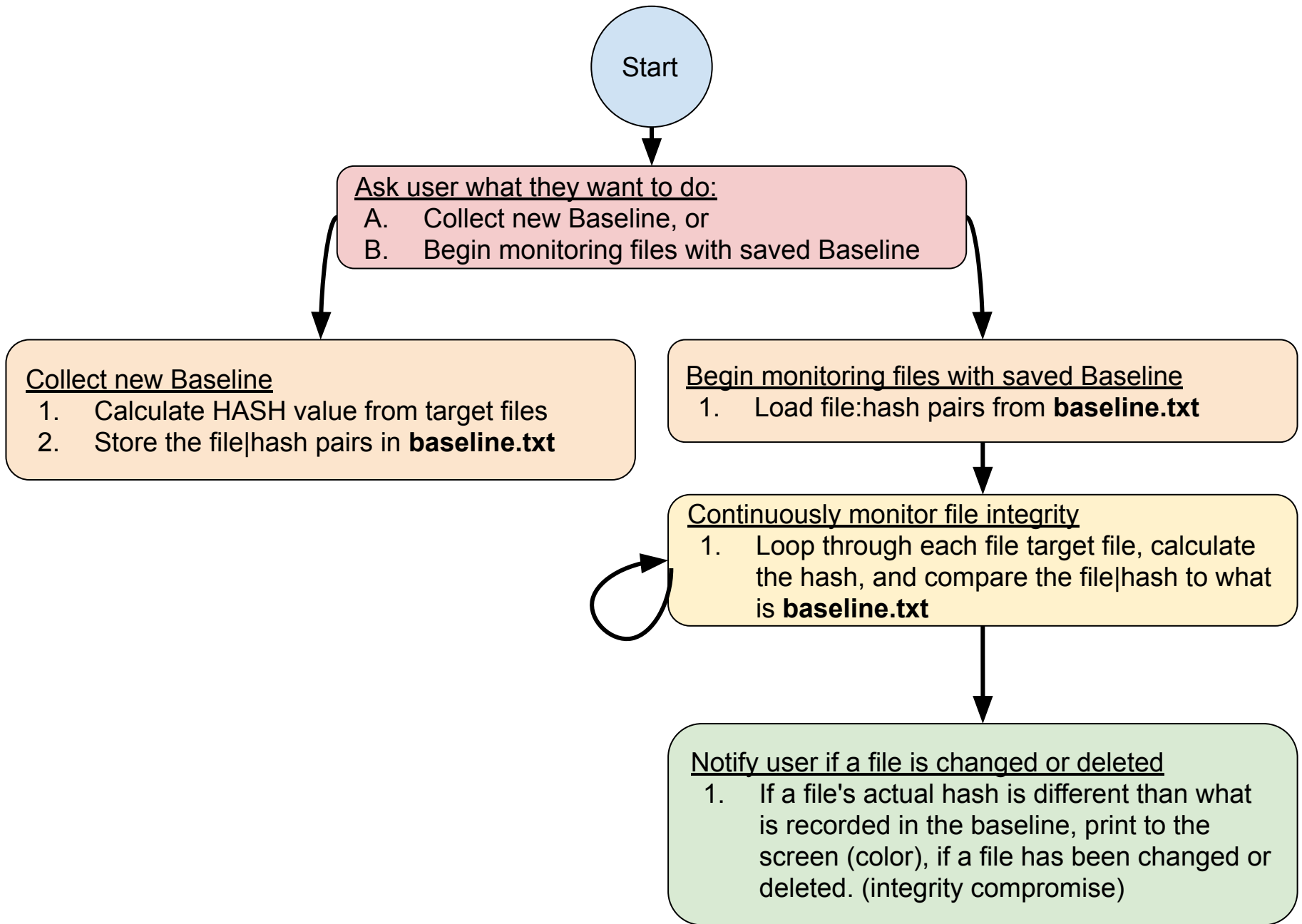
baseline.txt

baseline.txt - Notepad

File Edit Format View Help

```
C:\Users\Josh\Desktop\fim\Files\a.txt|9834876DCFB05CB167A5C24953EBA58C4AC89B1ADF57F28F2F9D09AF107EE8F0
C:\Users\Josh\Desktop\fim\Files\b.txt|3E744B9DC39389BAF0C5A0660589B8402F3DBB49B89B3E75F2C9355852A3C677
C:\Users\Josh\Desktop\fim\Files\c.txt|64DAA44AD493FF28A96EFFAB6E77F1732A3D97D83241581B37DBD70A7A4900FE
C:\Users\Josh\Desktop\fim\Files\d.txt|730F75DAFD73E047B86ACB2DBD74E75DCB93272FA084A9082848F2341AA1ABB6
```

Ln 1, Col 1   150%   Windows (CRLF)   UTF-16 LE