**Exercise**

Write a system. System requirements:

**Input**

1. File's hash(SHA1) – a string.
2. The file's type: exe / dll / elf – an Enum.

**Output**

1. The system should return a number between 0 and 100 which indicates whether the file is malicious or safe. 0 – safe, 100 – malicious.

Current APIs to be used + restrictions

1. Reputation Services:
   1. **Avocado:**
      1. Avocado is a highly accurate source.
      2. Accepts any file type.
      3. Returns a float between 0 and 1 which indicates whether the file is malicious or safe. 0 – safe, 1 – malicious.
   2. **Bamboo:**
      1. Less accurate than **Avocado**, in average.
      2. Accepts dll and exe file types.
      3. Returns a number between 0 and 100 which indicates whether the file is malicious or safe. 0 – safe, 100 – malicious.
   3. **Cube:**
      1. Accepts exe and elf file types.
      2. Returns **only** 100 / 0 scores. If 100 is returned, the file is certainly malicious. If 0 is returned, there is no indication if the file is safe or malicious.

* For all reputation services mentioned, if None is returned, then the reputation service doesn’t know the file.

**Notes:**

1. ***More reputation sources might be added in the future.***
2. We encourage you to ask questions! It’s a part of the exercise.
3. Use your best practices, conventions, naming and documentation.
4. Use any programming language you’d like.

Goodluck!