

Program Structure :

Files were divided into 3 sections:

- 1- Domain Model : Including interfaces in com.powa.detector package.
- 2- Implementation: Including implementation of domain model in com.powa.detector.impl package.
- 3- Test: Two different complete test cases in com.powa.detector.test

How Log being stored:

- 1- Ip string being converted to 32-bits Long for minimizing memory consumption.
- 2- Only Last 5 failed login epochs stored in a ring buffer.
- 3- A ConcurrentHashMap of (ip 32-bits long value as a key) and (ringbuffer of Epochs as a value) will be stored.