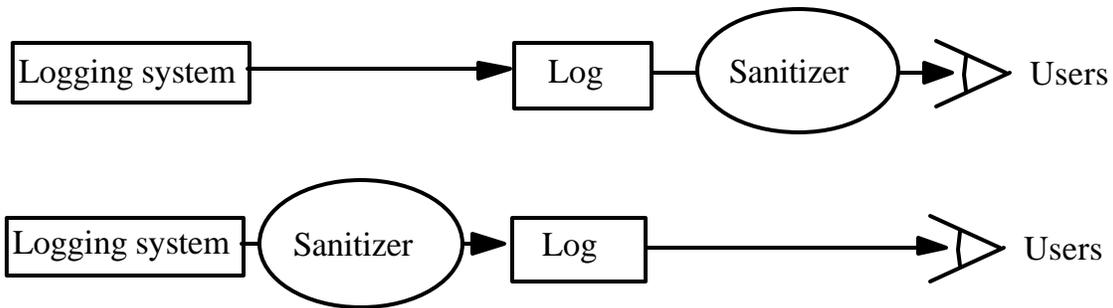


Name :

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1. Differentiate between the effects of the following two organizations (3)



*Answer*

The first one prevents information from leaving a site. However, it does not protect users' privacy as system administrators and other administrative personnel will be able to view the log.

The second one prevents information from leaving a system. In this case data is simply not recorded, or data is scrambled before recording. User privacy is protected.

2. What are the three required properties of a reference validation mechanism? (3)

*Answer*

- Tamperproof
- Never be bypassed (Complete mediation)
- Small enough to be subjected to analysis and testing for verifying completeness

3. How does language choice affect the implementation considerations for assurance (in terms of say C and Java)? (4)

*Answer*

Some languages requires high level expertise in writing safe programs, such as C. Pointers and memory management in C are two examples of features that need high level of programming skill in order to solve problems such as buffer overflow. Some languages have features that provide support for writing safe programs, like Java. Java is strongly typed to ensure safe programs and also provides memory management and error handling features that allow writing safe programs relatively easily.