

## Self-Check – Logging

Which of the following statements about logging in Java and C# is/are correct?

- ☐ a. It is usually safer and cheaper to develop a custom logging API on one's own
- ☐ b. All license-free logging APIs are not market proven
- ☐ c. The two famous modules for logging are Log4J 2 in Java and Log4net in C#
- ☐ d. Licenses of most market proven logging APIs are rather expensive
- ☐ e. The two famous modules for logging are J.Lo in Java and 50.C in C#

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Assign the following important levels of severity with their correct description.

DEBUG	Choose...
FATAL	Choose...
INFO/NOTICE	Is used to document special events (e.g.: entering wrong password more than 3 times)
WARN	Is used to document issues indicating upcoming errors (e.g.: performance)
ERROR	Is used during development
	Is used to document heavy errors where it is questionable whether the program can continue
	Is used to document errors that are unexpected but not causing applications to abort (e.g.: API HTTP 500 error)

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Which of the following statements about logging is/are correct?

- ☐ a. Logs should be easy to read but hard to parse
- ☐ b. Regular expressions for extracting log messages should be as complicated as possible in order to prevent security issues
- ☐ c. There are never too much log files and there is newer too much information in log files
- ☐ d. IDs or errors can be wrapped in brackets since it makes parsing with regular expressions easier

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Which of the following statements about logging is/are correct?

- ☐ a. Logging to a database is always much faster than logging to a text file – also for a single log file with few entries
- ☐ b. Logging into databases is often more efficient than writing directly into files
- ☐ c. Elastic search is optimized for a limited amount of log messages but does not scale up very well for big systems
- ☐ d. Searching for particular log info is usually easier in a database than in several text files
- ☐ e. Elastic search is optimized for analyzing log messages / full text search

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Which of the following statements about logging is/are correct?

- ☐ a. The language for log entries can be chosen freely since they can be translated automatically
- ☐ b. Logs are private – there is no need to take GDPR into account
- ☐ c. Logging frameworks allow different treatment of messages based on their level of severity
- ☐ d. Logs are meant to be processed by computers – they do not need to be human readable
- ☐ e. Whenever possible, logs should be enriched with specific data such as IDs

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## Self-Check – Configuration

Which of the following statements about configuration management is/are correct?

- ☐ a. Hybrid solutions should be avoided since different sources imply different implementations for accessing configuration values
- ☐ b. Hybrid solutions should be avoided since is it is difficult to reveal the source of a particular configuration value
- ☐ c. Although hybrid solutions should be avoided, the usage of several configuration sources may sometimes be required
- ☐ d. It is advisable to decide for a single particular configuration source
- ☐ e. It is advisable to decide for a combination of different configuration sources

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Which of the following statements about configuration settings is/are correct?

- ☐ a. Different sources for configuration settings are (among others) command line parameters, external services and user input at startup
- ☐ b. Although configuration settings can be provided by different sources, it is advisable to decide for a single particular source
- ☐ c. Since configuration settings can be provided by different sources, it is advisable to use a combination of sources
- ☐ d. Different sources for configuration settings are (among others) a configuration file (e.g. json) or a database that stores the configuration

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A Configuration Ruleset...

- ☐ a. contains the information about which configuration parameters are optional
- ☐ b. should be visible to developers but hidden from users
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- ☐ d. contains the information about all possible configuration properties
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Which of the following statements about configuration management is/are correct?

- ☐ a. Configuration details should be implemented directly in the program code in order to increase performance
- ☐ b. The current configuration should be accessible by users, especially if it can change during runtime
- ☐ c. For security reasons, a change of the current configuration during runtime should not be accessible by users
- ☐ d. Configuration files should be hidden behind proper interfaces

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Which of the following statements about configuration management is/are correct?

- ☐ a. In case of a configuration failure, the error messages should be suppressed / hidden from the user
- ☐ b. It is good practice to start the development process by writing a complete configuration file (based on XML/JSON) prior to the implementation of the code
- ☐ c. It is good practice to enhance configuration capabilities step by step during development
- ☐ d. It is good practice to check configuration settings during startup and only proceed further in case of successful checks
- ☐ e. In case of wrong or missing configuration values, the program should terminate

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## Self-Check – Deployment

Which of the following statements about deployment is/are correct?

- ☐ a. From the point of view of software architects, the deployment pipeline can be changed easily
- ☐ b. Early deployments suffer from the risk of invalid feedback, negatively impacting your system design
- ☐ c. Deployment is often considered as a high risk for the project
- ☐ d. Deployment strategies should be planned in a later project phase

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Which of the following are part of the DevOps software development process?

- ☐ a. Building
- ☐ b. Testing
- ☐ c. Configuring
- ☐ d. Packaging
- ☐ e. Releasing
- ☐ f. Monitoring
- ☐ g. Coding

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Which of the following definitions of software deployment and software release cycle is/are correct?

- ☐ a. The software release cycle refers to the process of running an application on a server or device
- ☐ b. Software deployment refers to the process of running an application on a server or device
- ☐ c. Software deployment refers to the stages of development for a piece of computer software
- ☐ d. The software release cycle refers to the stages of development for a piece of computer software

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software release manual and automated processes update intended users monitoring steps, processes, and activities

Software deployment includes all of the [ ] that are required to make a software system or [ ] available to its [ ]

Today, most IT organizations and software developers deploy software updates, patches and new applications with a combination of [ ].

Some of the most common activities of software deployment include [ ], installation, testing, deployment, and performance [ ].

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Today, most IT organizations and software developers deploy software updates, patches and new applications with a combination of [ manual and automated processes ].

Some of the most common activities of software deployment include [ software release ], installation, testing, deployment, and performance [ monitoring ].

Which of the following statements about deployment is/are correct?

- ☐ a. Each part of a system that can be independently deployed is called a *deployable*
- ☐ b. Each group of interdependent modules is called a *deployable*
- ☐ c. Each feature-complete application is called a *deployable*

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