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The SQAaaS Hackathon (Part II)

Monday 10 October 2022 16:00 (2 hours)

The Software Quality as a Service (SQAaaS) portal [1] has been developed during the lifespan of the EC-funded EOSC-Synergy project. One of its main contributions is to assess the quality of software projects, including the evaluation of both source code and services, through the Quality Assessment and Awarding (QAA) module. The quality criteria for source code includes static analysis, such as style compliance or unit testing coverage, and the presence of specific metadata, such as the applicable license, the definition of a code of conduct or documentation. Likewise, the quality criteria for services include its capability of being automatically deployed and further dynamic testing.

Hence, based on the presence of a code repository, the QAA iterates over the supported criteria, checking their compliance through the selection and execution of the appropriate set of open source tools. In the particular case of assessing services, the user shall provide the URL of the code repository that contains the Infrastructure as Code (IaC) files that manage the deployment of the service.

After the completion of the assessment process, a report is generated detailing every quality attribute being checked by the aforementioned tools. Each attribute or criterion is identified using a code, outlined with a small description and reported as successful or a failure. According to EOSC-Synergy standards, the quality achievements being obtained as a result of the assessment process can additionally result in the issuance of a digital badge, provided that a minimum of coverage has been reached. There are three classes of EOSC-Synergy badges: bronze, silver and gold, from lower to higher rated software.

The goal of the SQAaaS Hackathon is to improve the quality aspects of code repositories related to research software. Thus, the software developers will be challenged to obtain a higher score than the one initially obtained through the usage of the QAA module available through the SQAaaS portal. On each iteration the QAA report will provide clues to improve the overall quality rating, so that the Hackathon participant can focus on resolving those and execute the quality assessment process as many times as needed during the time specified by the Hackathon organizers. The progress (difference between final and initial criteria) obtained during the Hackathon will be best rated, followed by the highest overall badge level.

[1] https://docs.sqaaas.eosc-synergy.eu

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