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ATLAS Qualification interface refactoring strategy

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The ATLAS experiment involves over 6000 active members, including students, physicists, engineers, and researchers, and more than 2500 members are authors. This dynamic CERN environment brings up some challenges, such as managing the qualification status of each author. The Qualification system, developed by the Glance team, aims to automate the processes required for monitoring the progress of ATLAS members as they work to achieve author status. Recently, ATLAS modified the policy governing authorship qualification, and updates were necessary to put the changes into effect.

The system's code was originally developed on top of an outdated framework. In order to ease the transition to the new ATLAS authorship qualification policy, the code was updated to a Hexagonal architecture based on Domain Driven Design philosophy. The access to the database has shifted from ORM - Object Relational Mapper - to SQL repositories to align with the team's development stack. The system's quality is ensured with automatic tests as part of an effective refactoring process transparent for the end user. This refactoring strategy enhances our system to meet both previously unaddressed and new requirements, to improve code maintainability, and to increase flexibility to accommodate possible future changes in the qualification policy.

Primary authors: LOUREIRO CRUZ, Ana Clara (Federal University of Rio de Janeiro (BR)); NIKLAUS MOREIRA DA ROCHA RODRIGUES, Carolina (Federal University of Rio de Janeiro (BR)); LEMOS LUCIDI PINHAO, Gabriela (LIP - Laboratorio de Instrumentação e Física Experimental de Partículas (PT)); MARINS, Leonardo Mira (Federal University of Rio de Janeiro (BR)); GOES AFONSO, Pedro Henrique (Federal University of Rio de Janeiro (BR)); ROMANO, Rafaella Lenzi (Federal University of Rio de Janeiro (BR))

Presenter: NIKLAUS MOREIRA DA ROCHA RODRIGUES, Carolina (Federal University of Rio de Janeiro (BR))

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