CodeRefinery: Training researchers and RSEs in FAIR tools and practices

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CodeRefinery is a project funded by the Nordic e-Infrastructure Collaboration (NeIC) supporting students, researchers, and RSEs across all research fields by teaching FAIR research software engineering practices.

All CodeRefinery team members are involved in HPC training at their national or local organizations and bring their knowledge and experiences into the project and also apply their teaching in their organizations. Our public CodeRefinery chat also serves as a hub for information exchange and support for everyone interested.

One core part of the project is the development of lesson material and the organization of a biannual workshop on software engineering practices which are needed for modern collaborative computational research but are often missed in a traditional university curriculum.

The CodeRefinery teaching model for these workshops combines live-streaming, co-teaching, parallelized and threaded questions and answers, and parallel in-person events following via stream. This strategy has been applied to teaching events with over 500 registered participants.

In this contribution we will share our experiences and lessons learned from developing and evolving the CodeRefinery lesson curriculum and course format from over 50 events organized. We will also share insights gained from growing a community of instructors and research software engineers with the goal of improving software engineering practices and thus the quality of computational research and engineering.