

How to Contribute to the Certification Standard?



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<https://hpc-certification.org>

The HPC Certification Forum: YouTube Series

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- Describe the role of the HPC Certification Forum
- Organize competences using a MindMapping tool
- Define a skill using Markdown on GitHub
- Define a skill using the Wiki

Goals

- Standardizing the HPC knowledge into fine-grained competences
 - ▶ What competences exist, how are they defined?
 - ▶ Puzzle of competences for everyone (practitioners, students, admins)
 - ▶ Supporting navigation and role-specific knowledge maps
- Establishing international recognized certificates attesting knowledge
- Supporting an ecosystem around the HPC competences

The Competences Standard (CS) == Skills + Tree

- The Competence Standard follows processes to evolve
- A **skill** defines background, objectives, learning outcomes
- The **skill tree** organizes the competences as hierarchical skills

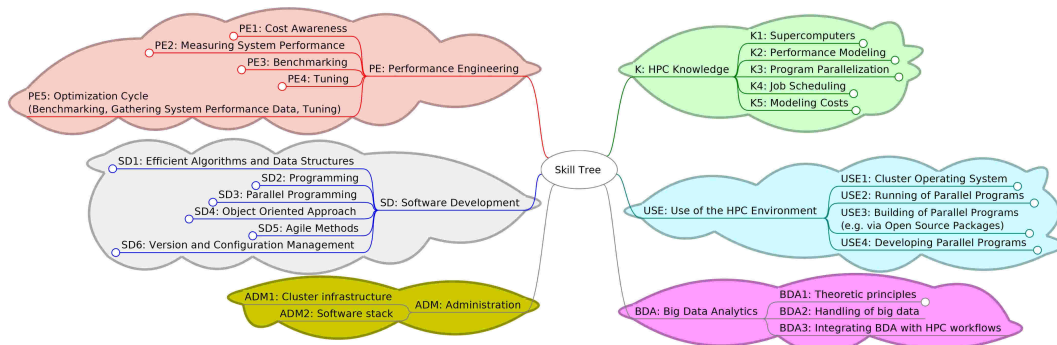


Figure: Top-levels of the skill tree (Initial ADM and BDA branches)

Example High-Level Skill (Excerpt)

- Name: SLURM Workload manager
- Id: USE4.2.2-B
- Background: SLURM is a widely used open-source workload manager providing various advanced features.
- Aim:
 - ▶ comprehend and describe the basic architecture of SLURM and its tools
 - ▶ use relevant tools to run and monitor (parallel) applications

Learning outcomes (these must be examinable)

- run interactive jobs with salloc, a batch job with sbatch
- explain the architecture of SLURM, i.e., the role of slurmd, srun
- explain the function of the tools: sacct, sbatch, salloc, ...
- explain time limits and the benefit of a backfill scheduler
- see <https://www.hpc-certification.org/wiki/>