Title: Collaborative Development of HPC Training Materials

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Abstract:

HPC resources can only be used effectively when they are accessible to their users. Therefore, as CUG member sites continue to invest in HPE-Cray systems and software, it is critical to offer training sessions, training resources, and documentation to educate their seasoned scientific users about developments in their HPC resources and to bring newer users up to speed on HPC topics more broadly. There is often significant commonality in existing and needed training materials across CUG member sites. To improve the efficacy of their efforts, many HPC specialists working on training and education have expressed interest in collaborating in the curation, sharing, creation, and improvement of HPC and HPE-Cray specific training materials. This collaborative effort will improve learning outcomes for users at each site, and improve the scientific throughput. Therefore, we propose holding a BoF session to facilitate this collaboration.

The BoF session will consist of introductory lightning talks from the convening members and vendors. We will then break into small-group discussions based on topic areas to identify redundancy, gaps, and foci for collaboration. An out-brief at the end of the session will summarize the findings from each small-group discussion.

The expected outcome is the production of a concise report documenting the BoF's ideas, progress, and recommendations for tools or resources needed for future efforts. This collaborative initiative aims to position CUG members as leaders in the development and sharing of HPC training materials.

Full Abstract:

HPC resources can only be used effectively when they are accessible to their users. Therefore, as CUG member sites continue to invest in HPE-Cray systems and software, it is critical to offer training sessions, training resources, and documentation to educate their seasoned scientific users about developments in their HPC resources and to bring newer users up to speed on HPC topics more broadly. There is often significant commonality in existing and needed training materials across CUG member sites. To improve the efficacy of their efforts, many HPC specialists working on training and education have expressed interest in collaborating in the

curation, sharing, creation, and improvement of HPC and HPE-Cray specific training materials. This collaborative effort will improve learning outcomes for users at each site, and improve the scientific throughput. Therefore, we propose holding a BoF session to facilitate this collaboration.

The proposed 1.5 hour BoF agenda includes:

Introduction & lightning talks (20 minutes):

- Convening members introduce the goals of the BoF.
- Lightning talks from LBL, LLNL, Pawsey, and vendors (TBA) on their training programs and content organization methods, as well as gaps and/or areas for collaboration.

Small-Group Discussions (50 minutes):

- Participants organize into small groups focused on particular training areas, such as GPU programming, cloud computing, workflow tools, etc., and any other topics based on participants.
- Ice breaker: Members of each group engage in creativity-boosting, warm-up activities while introducing themselves.
- Group members share the state of training materials in their focus area offered by their site, identifying priorities, gaps in documentation, and necessary additions to training materials.
- Groups look for shared gaps and complementary material across sites, evaluating characteristics, such as currency, site-agnosticism, redundancy, completeness, and exemplariness.
- Brainstorming on effective material sharing, online tools, metadata creation, tracking, and identifying liaison roles, as well as lessons learned from sites that have tried any of these tasks.

Out-Brief (20 minutes):

- Groups report findings to the larger group and organizers for summary purposes. Specifically:
 - Gaps or requests for help are highlighted, potentially leading to collaborations between sites.
 - Similarities, differences, and ideas for curating materials for sharing across sites

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