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Memory Allocation Profiling upcoming features

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Memory allocation profiling infrastructure provides a low-overhead mechanism to make all kernel allocations in the system visible. This allows for monitoring memory usage, tracking hotspots, detecting leaks, and identifying regressions.

Over the past year there were a number of suggested new features from its users, including:

- NUMA awareness
- MEMCG awareness
- Context capture (initially part of the RFC)
- IOCTL as a mechanism for efficient data querying and filtering
- Reporting extra data like `gfp_flags` and unaccounted memory size
- Userspace tooling (grouping allocations by categories, issuing `ioctl` commands, etc).

We would like to gauge the level of interest in each feature to prioritize new development, discuss main challenges and options for implementing each feature, and share performance data associated with some of these features.

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