A graphical performance analysis and exploration tool for Linux perf

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Performance Monitoring Units (PMUs) allow measuring the performance of a workload with minimal overhead

- The hardware can count and report events during workload execution

Linux can probe the processor’s PMUs and provides a user interface to setting up, performing and analyzing measurements through perf.
A simpler interface

- We built on top of Linux perf and pmu-tools (a toolkit that improves perf’s usability) a web-based graphical interface.
- We use modern web technologies and visualization libraries to allow for an easy setup of performance benchmarks and analysis of the results.
The current interface offers all basic features

- Running `perf stat` and `perf record` with a desired workload
- extended event names are provided through `ocperf` and can be easily chosen from a list
- Samples are plotted using Bokeh both in a timeline view and aggregate bar plot over symbols
- Session management allows grouping, naming, exporting, sharing and deleting benchmarks

More work is needed to make the code more stable and better handle special cases

- Multi-plots and axis transformations would improve visualization
- Realtime feedback from the workload