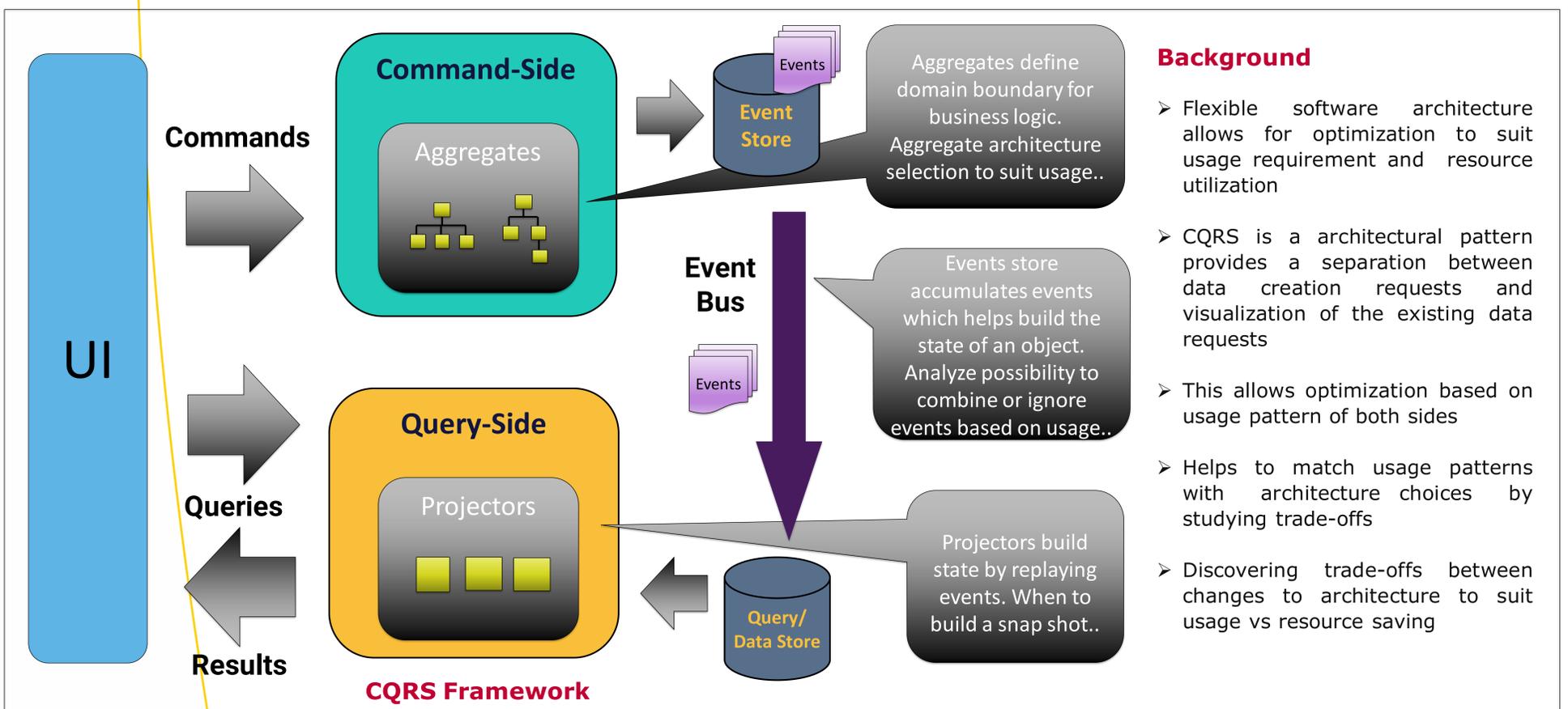




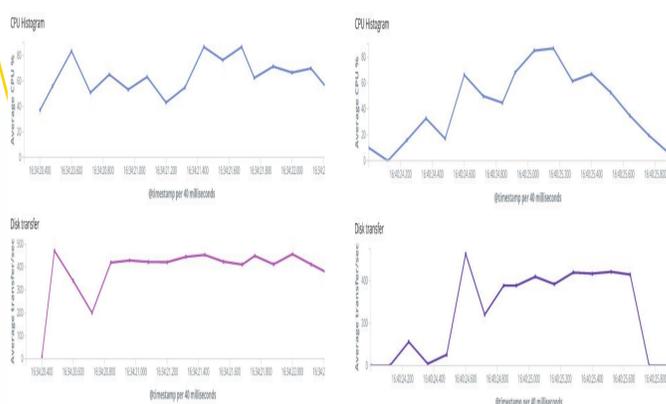
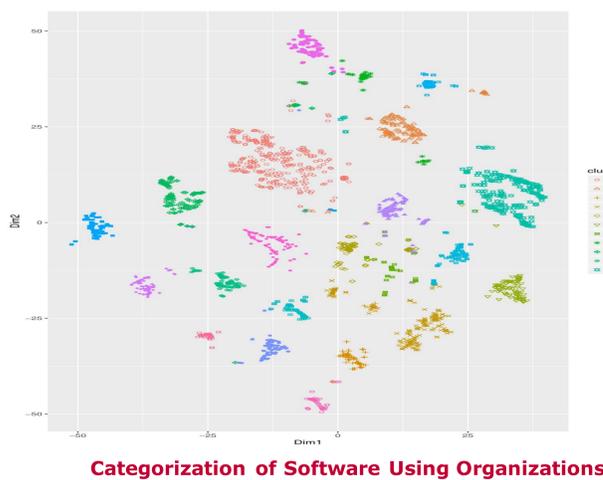
Workload Relation to Component Architecture Using DDD Aggregates in CQRS Framework

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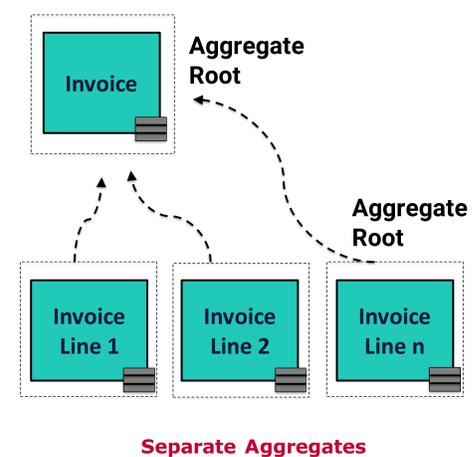
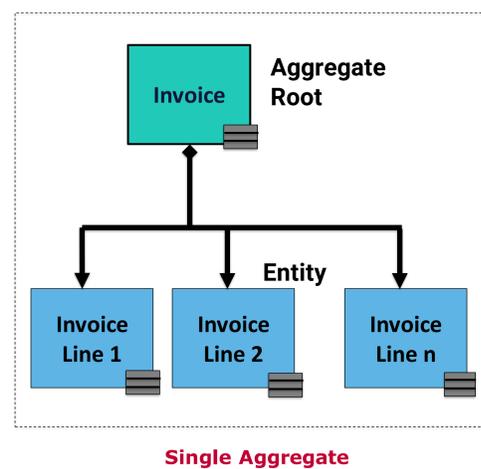


Usage Pattern Analysis

- Identify metrics translatable between software architectures, such as 3-tier to CQRS, i.e. high-level business metrics, e.g. sales invoice per customer, invoice line per invoice etc. in an organization
- Select clustering algorithm and initial parameters based on internal cluster validation, such as Silhouette Width etc.
- Eliminate outliers from clusters
- Validate clusters by building classification model and test new data



Simulation of Workload for Two Clusters Showing Difference in Resource Utilization



Command-side Optimization

- Single aggregate vs multiple aggregates
- Building state of entire aggregate vs communication overhead
- New aggregate instance creation vs updating existing aggregate
- Attribute overhead while building state

- Legends**
- Internal Events b/w aggregates
 - Domain Boundary
 - Attributes