Simple Object Storage - Report 3

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During the measurement, mostly i will do performance and correctness test. Ideally,first I will measure the throughput of the storage device in order to get a baseline against which I can compare the performance of the developed object storage. To measure the developed app throughput, i will consider following workloads:

- **Workload 1:** Small object reads (less than 128 kb)
- **Workload 2:** Object reads with no size constraint
- **Workload 3:** Concurrent writes (small objects)
- **Workload 4:** Concurrent writes with no size constraint
- **Workload 5:** Reads and Writes

In each workload, I will measure the request throughput, average latency, and standard deviation of the latency.

In this research, the primary focus will be correctness of the systems and make sure that the proposed solution indeed improves the performance of the system for small files. While the data content is not the primary focus, it is still plays a crucial role for evaluating the correctness of the systems. For that, I have collected datasets that are much closer to the production environment than random bytes of data.

Table 1: Dataset description

Type	**Total Size**
Video	126 MB
Image	13 GB
PDF	5 GB

In the dataset, some files are large. In the case of video, I have written a python script that takes the video and divides it into smaller clips which in this research is more suitable. I have implemented similar script for the images where the script takes the image and resizes it into more smaller size.