**RESULTS**

The program has been run for a variety of test cases –

**7 Servers 1 Client 10 Requests** –

Initial Read Requests failed since the file did not existed and all write requests were successful, subsequent reads from all the files which were written to was successful.

Time Taken - 0.30 sec

Logs - Please find the log file below -



**7 Servers 1 Client 100 Requests –**

Initial Read Requests failed since the file did not existed and all write requests were successful, subsequent reads from all the files which were written to was successful.

Time Taken – 1 sec

Log - Please find the log file below -



**7 Servers 1 Client 500 Requests –**

Initial Read Requests failed since the file did not existed and all write requests were successful, subsequent reads from all the files which were written to was successful. This was run over and above the files created from the first run so read requests on all the files that were existing were successful.

Time Taken – 5 sec

Logs – Logs not added hereon since it was laborious to add it here.

**7 Servers 1 Client 1000 Requests –**

Initial Read Requests failed since the file did not existed and all write requests were successful, subsequent reads from all the files which were written to was successful. This was run over and above the files created from the above run so read requests on all the files that were existing were successful.

Time Taken – 7 sec

**7 Servers 2 Clients 100 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 2 sec

**7 Servers 2 Clients 500 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 5 sec

**7 Servers 2 Clients 1000 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 12 sec

**7 Servers 5 Clients 100 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 6 sec

**7 Servers 5 Clients 500 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 20 sec

**7 Servers 5 Clients 1000 Requests –**

All reads and writes were successful since they were done on top of the ones done above.

Time Taken – 31 sec

**5 Servers 5 Clients –**

Simulated the below mentioned scenario where Servers S2 and S3 were unreachable, accordingly no write requests to files A, G, H should be successful as shown below since there would be insufficient votes to carry out the operation.

**100 Requests –**

Time Taken – 11 sec

**500 Requests –**

Time Taken – 23 sec

**1000 Requests –**

Time Taken – 35 sec

Logs (Truncated to show only the relevant logs) –

Client Logs

Sending Read Request for Object A From Servers.

Failed To Connect To Server: S3 For Reading File: A

Failed To Connect To Server: S2 For Reading File: A

Reading Object A By Client C0 From Server S4 In Progress

SUCCESS! Contents Of Object: A In Server: S4 Is: Client C0 Write # 3…..

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Client Logs

Sending Write Request for Object: B To Servers

Failed To Connect To Server: S3 For Writing To File: B Message: Client C0 Write # 458

Write Message: Client C0 Write # 458 To Object: B By Client: C0 At Server S4 In Progress At 1587240576346

Write Message: Client C0 Write # 458 To Object: B By Client: C0 At Server S5 In Progress At 1587240576346

SUCCESS! Write Successful at Server: S4 for Object: B With Message: Client C0 Write # 458

SUCCESS! Write Successful at Server: S5 for Object: B With Message: Client C0 Write # 458

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Client Logs

Sending Write Request for Object: H To Servers

Failed To Connect To Server: S2 For Writing To File: H Message: Client C0 Write # 460

Failed To Connect To Server: S3 For Writing To File: H Message: Client C0 Write # 460

Abort Write Message: Client C0 Write # 460 to Object: H, By Client: C0 To Server S4 At 1587240576364

Server Logs

Received Connection Request From IP Address = /10.176.69.58, Port Number = 33014

Request Received From Client With Message CLIENT:C0:ABORT:A:Client C0 Write # 488:1587240576653

server S4 sends a successful abort ack to client C0

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| --- | --- | --- | --- |
| **File Name** | **Server 1** | **Server 2** | **Server 3** |
| A | S2 | S3 | S4 |
| B | S3 | S4 | S5 |
| C | S4 | S5 | S6 |
| D | S5 | S6 | S0 |
| E | S6 | S0 | S1 |
| F | S0 | S1 | S2 |
| G | S1 | S2 | S3 |
| H | S2 | S3 | S4 |
| I | S3 | S4 | S5 |
| J | S4 | S5 | S6 |