Starting performance tests from AbuDhabiUAE

Test 1-4: Infrastructure Ping Tests

- J 1. Ping prod1 (Oracle UK): 111.15ms, 0 bytes
- J 2. Ping prod2 (Google US): 224.99ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 231.67ms, 0 bytes
- J 4. Ping default (Route53): 113.71ms, 0 bytes

Test 5-10: APOD Performance Tests

- ✓ 5. NASA APOD Today Direct: 1455.69ms, 1093 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 1374.48ms, 1038 bytes
- J 7. GraphQL APOD Today Non-Cached: 29551.58ms, 2401 bytes
- J 8. GraphQL APOD Today Cached: 426.23ms, 2401 bytes
- ${\it J}$ 9. GraphQL APOD Jan 1 2000 Non-Cached: 22615.31ms, 2262 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 448.98ms, 2262 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 2597.96ms, 163469 bytes
- J 12. GraphQL Events Non-Cached: 2008.88ms, 50288 bytes
- J 13. GraphQL Events Cached: 711.51ms, 50288 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

- J 14. JPL Planets 1-8 Single Thread: 7416.64ms, 1168 bytes
- Testing JPL multi threaded...
- J 15. JPL Planets 1-8 Multi Thread: 1087.34ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 84843.78ms, 4336 bytes
- J 17. GraphQL Planets Cached: 441.19ms, 4336 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 479.1ms, 6284 bytes

Saving Results...

Results saved to $performance_results_AbuDhabiUAE.json$

Test Summary for AbuDhabiUAE:

- J 1. Ping prod1 (Oracle UK): 111.15ms
- J 2. Ping prod2 (Google US): 224.99ms
- J 3. Ping prod3 (AWS Singapore): 231.67ms
- J 4. Ping default (Route53): 113.71ms
- √ 5. NASA APOD Today Direct: 1455.69ms
- J 6. NASA APOD Jan 1 2000 Direct: 1374.48ms
- J 7. GraphQL APOD Today Non-Cached: 29551.58ms
- √ 8. GraphQL APOD Today Cached: 426.23ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 22615.31ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 448.98ms
- J 11. NASA EONET Direct: 2597.96ms
- J 12. GraphQL Events Non-Cached: 2008.88ms
- J 13. GraphQL Events Cached: 711.51ms
- J 14. JPL Planets 1-8 Single Thread: 7416.64ms
- J 15. JPL Planets 1-8 Multi Thread: 1087.34ms
- J 16. GraphQL Planets Non-Cached: 84843.78ms
- J 17. GraphQL Planets Cached: 441.19ms
- √ 18. GraphQL Articles: 479.1ms

```
Enter test location (e.g., 'US-West', 'Germany', 'Japan'): SãoPauloBrazil
```

Starting performance tests from SãoPauloBrazil

```
Test 1-4: Infrastructure Ping Tests
```

- J 1. Ping prod1 (Oracle UK): 188.89ms, 0 bytes
- J 2. Ping prod2 (Google US): 142.73ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 328.48ms, 0 bytes
- J 4. Ping default (Route53): 142.78ms, 0 bytes

Test 5-10: APOD Performance Tests

- J 5. NASA APOD Today Direct: 1012.6ms, 1137 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 864.28ms, 1038 bytes
- J 7. GraphQL APOD Today Non-Cached: 36406.83ms, 2449 bytes
- J 8. GraphQL APOD Today Cached: 514.22ms, 2449 bytes
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 33844.1ms, 2411 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 502.57ms, 2411 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 2139.66ms, 164003 bytes
- J 12. GraphQL Events Non-Cached: 2439.15ms, 50466 bytes
- J 13. GraphQL Events Cached: 845.1ms, 50466 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

J 14. JPL Planets 1-8 Single Thread: 4860.04ms, 1168 bytes

Testing JPL multi threaded...

- J 15. JPL Planets 1-8 Multi Thread: 879.1ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 71275.62ms, 4220 bytes
- J 17. GraphQL Planets Cached: 498.57ms, 4220 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 498.38ms, 6284 bytes

Saving Results...

Results saved to performance_results_SãoPauloBrazil.json

Test Summary for SãoPauloBrazil:

- J 1. Ping prod1 (Oracle UK): 188.89ms
- J 2. Ping prod2 (Google US): 142.73ms
- J 3. Ping prod3 (AWS Singapore): 328.48ms
- J 4. Ping default (Route53): 142.78ms
- √ 5. NASA APOD Today Direct: 1012.6ms
- ${\it J}$ 6. NASA APOD Jan 1 2000 Direct: 864.28ms
- J 7. GraphQL APOD Today Non-Cached: 36406.83ms
- √ 8. GraphQL APOD Today Cached: 514.22ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 33844.1ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 502.57ms
- J 11. NASA EONET Direct: 2139.66ms
- J 12. GraphQL Events Non-Cached: 2439.15ms
- J 13. GraphQL Events Cached: 845.1ms
- J 14. JPL Planets 1-8 Single Thread: 4860.04ms
- J 15. JPL Planets 1-8 Multi Thread: 879.1ms
- J 16. GraphQL Planets Non-Cached: 71275.62ms
- J 17. GraphQL Planets Cached: 498.57ms
- √ 18. GraphQL Articles: 498.38ms

Starting performance tests from CapeTownSouthAfrica

Test 1-4: Infrastructure Ping Tests

- J 1. Ping prod1 (Oracle UK): 146.31ms, 0 bytes
- J 2. Ping prod2 (Google US): 264.88ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 324.17ms, 0 bytes
- J 4. Ping default (Route53): 324.17ms, 0 bytes

Test 5-10: APOD Performance Tests

- ✓ 5. NASA APOD Today Direct: 1298.6ms, 185 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 1124.83ms, 185 bytes
- J 7. GraphQL APOD Today Non-Cached: 57050.3ms, 2527 bytes
- J 8. GraphQL APOD Today Cached: 1041.41ms, 2527 bytes
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 26604.98ms, 2280 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 1041.05ms, 2280 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 2747.76ms, 164003 bytes
- J 12. GraphQL Events Non-Cached: 4026.46ms, 50466 bytes
- J 13. GraphQL Events Cached: 1676.5ms, 50466 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

- J 14. JPL Planets 1-8 Single Thread: 7138.87ms, 1168 bytes
- Testing JPL multi threaded...
- ${\it J}$ 15. JPL Planets 1-8 Multi Thread: 1181.02ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 71195.55ms, 4295 bytes
- J 17. GraphQL Planets Cached: 1038.43ms, 4295 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 1015.62ms, 6284 bytes

Saving Results...

Results saved to performance_results_CapeTownSouthAfrica.json

Test Summary for CapeTownSouthAfrica:

- J 1. Ping prod1 (Oracle UK): 146.31ms
- J 2. Ping prod2 (Google US): 264.88ms
- J 3. Ping prod3 (AWS Singapore): 324.17ms
- J 4. Ping default (Route53): 324.17ms
- X 5. NASA APOD Today Direct: 1298.6ms
- \emph{X} 6. NASA APOD Jan 1 2000 Direct: 1124.83ms
- J 7. GraphQL APOD Today Non-Cached: 57050.3ms
- J 8. GraphQL APOD Today Cached: 1041.41ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 26604.98ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 1041.05ms
- J 11. NASA EONET Direct: 2747.76ms
- J 12. GraphQL Events Non-Cached: 4026.46ms
- J 13. GraphQL Events Cached: 1676.5ms
- J 14. JPL Planets 1-8 Single Thread: 7138.87ms
- J 15. JPL Planets 1-8 Multi Thread: 1181.02ms
- J 16. GraphQL Planets Non-Cached: 71195.55ms
- J 17. GraphQL Planets Cached: 1038.43ms
- √ 18. GraphQL Articles: 1015.62ms

```
Enter test location (e.g., 'US-West', 'Germany', 'Japan'): MilanItaly
Starting performance tests from MilanItaly
```

______ Test 1-4: Infrastructure Ping Tests J 1. Ping prod1 (Oracle UK): 24.58ms, 0 bytes J 2. Ping prod2 (Google US): 130.0ms, 0 bytes J 3. Ping prod3 (AWS Singapore): 156.33ms, 0 bytes J 4. Ping default (Route53): 24.58ms, 0 bytes Test 5-10: APOD Performance Tests J 5. NASA APOD Today Direct: 754.3ms, 1137 bytes J 6. NASA APOD Jan 1 2000 Direct: 731.83ms, 1038 bytes J 7. GraphQL APOD Today Non-Cached: 25411.37ms, 2484 bytes J 8. GraphQL APOD Today Cached: 147.15ms, 2484 bytes J 9. GraphQL APOD Jan 1 2000 Non-Cached: 25130.37ms, 2419 bytes J 10. GraphQL APOD Jan 1 2000 Cached: 145.67ms, 2419 bytes Test 11-14: Events Performance Tests _____ J 11. NASA EONET Direct: 1249.91ms, 164003 bytes J 12. GraphQL Events Non-Cached: 1455.25ms, 50466 bytes J 13. GraphQL Events Cached: 177.63ms, 50466 bytes Test 14-17: JPL Planets Performance Tests -----Testing JPL single threaded... J 14. JPL Planets 1-8 Single Thread: 4126.5ms, 1168 bytes Testing JPL multi threaded... J 15. JPL Planets 1-8 Multi Thread: 809.96ms, 1168 bytes J 16. GraphQL Planets Non-Cached: 83259.72ms, 4369 bytes J 17. GraphQL Planets Cached: 141.96ms, 4369 bytes Test 18: Articles Performance Test -----J 18. GraphQL Articles: 133.35ms, 6284 bytes Saving Results... -----Results saved to performance_results_MilanItaly.json Test Summary for MilanItaly: √ 1. Ping prod1 (Oracle UK): 24.58ms ✓ 2. Ping prod2 (Google US): 130.0ms √ 3. Ping prod3 (AWS Singapore): 156.33ms J 4. Ping default (Route53): 24.58ms J 5. NASA APOD Today Direct: 754.3ms J 6. NASA APOD Jan 1 2000 Direct: 731.83ms J 7. GraphQL APOD Today Non-Cached: 25411.37ms J 8. GraphQL APOD Today Cached: 147.15ms J 9. GraphQL APOD Jan 1 2000 Non-Cached: 25130.37ms J 10. GraphQL APOD Jan 1 2000 Cached: 145.67ms J 11. NASA EONET Direct: 1249.91ms J 12. GraphQL Events Non-Cached: 1455.25ms J 13. GraphQL Events Cached: 177.63ms J 14. JPL Planets 1-8 Single Thread: 4126.5ms J 15. JPL Planets 1-8 Multi Thread: 809.96ms J 16. GraphQL Planets Non-Cached: 83259.72ms J 17. GraphQL Planets Cached: 141.96ms J 18. GraphQL Articles: 133.35ms

```
Enter test location (e.g., 'US-West', 'Germany', 'Japan'): TokyoJapan
```

Starting performance tests from TokyoJapan

```
Test 1-4: Infrastructure Ping Tests
```

- J 1. Ping prod1 (Oracle UK): 232.63ms, 0 bytes
- J 2. Ping prod2 (Google US): 132.43ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 69.92ms, 0 bytes
- J 4. Ping default (Route53): 69.78ms, 0 bytes

Test 5-10: APOD Performance Tests

- J 5. NASA APOD Today Direct: 552.71ms, 1136 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 532.57ms, 1038 bytes
- J 7. GraphQL APOD Today Non-Cached: 30000.55ms, 2614 bytes
- J 8. GraphQL APOD Today Cached: 270.26ms, 2614 bytes
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 36123.66ms, 2293 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 273.46ms, 2293 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 2134.46ms, 164003 bytes
- J 12. GraphQL Events Non-Cached: 3379.99ms, 50466 bytes
- J 13. GraphQL Events Cached: 408.67ms, 50466 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

J 14. JPL Planets 1-8 Single Thread: 2953.59ms, 1168 bytes

Testing JPL multi threaded...

- J 15. JPL Planets 1-8 Multi Thread: 693.9ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 72227.05ms, 4489 bytes
- J 17. GraphQL Planets Cached: 280.08ms, 4489 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 273.05ms, 6284 bytes

Saving Results...

Results saved to performance_results_TokyoJapan.json

Test Summary for TokyoJapan:

- J 1. Ping prod1 (Oracle UK): 232.63ms
- J 2. Ping prod2 (Google US): 132.43ms
- √ 3. Ping prod3 (AWS Singapore): 69.92ms
- J 4. Ping default (Route53): 69.78ms
- √ 5. NASA APOD Today Direct: 552.71ms
- J 6. NASA APOD Jan 1 2000 Direct: 532.57ms
- J 7. GraphQL APOD Today Non-Cached: 30000.55ms
- J 8. GraphQL APOD Today Cached: 270.26ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 36123.66ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 273.46ms
- J 11. NASA EONET Direct: 2134.46ms
- J 12. GraphQL Events Non-Cached: 3379.99ms
- J 13. GraphQL Events Cached: 408.67ms
- J 14. JPL Planets 1-8 Single Thread: 2953.59ms
- J 15. JPL Planets 1-8 Multi Thread: 693.9ms
- J 16. GraphQL Planets Non-Cached: 72227.05ms
- J 17. GraphQL Planets Cached: 280.08ms
- √ 18. GraphQL Articles: 273.05ms

```
Enter test location (e.g., 'US-West', 'Germany', 'Japan'): SydneyAustralia
```

Starting performance tests from SydneyAustralia

Test 1-4: Infrastructure Ping Tests

- J 1. Ping prod1 (Oracle UK): 275.25ms, 0 bytes
- J 2. Ping prod2 (Google US): 198.97ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 92.26ms, 0 bytes
- J 4. Ping default (Route53): 92.21ms, 0 bytes

Test 5-10: APOD Performance Tests

- J 5. NASA APOD Today Direct: 849.31ms, 1136 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 681.57ms, 1038 bytes
- J 7. GraphQL APOD Today Non-Cached: 27515.56ms, 2436 bytes
- J 8. GraphQL APOD Today Cached: 346.6ms, 2436 bytes
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 24700.93ms, 2289 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 345.07ms, 2289 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 2917.26ms, 164003 bytes
- J 12. GraphQL Events Non-Cached: 3086.33ms, 50466 bytes
- J 13. GraphQL Events Cached: 522.84ms, 50466 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

- J 14. JPL Planets 1-8 Single Thread: 4032.29ms, 1168 bytes
- Testing JPL multi threaded...
- J 15. JPL Planets 1-8 Multi Thread: 781.72ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 77291.28ms, 4203 bytes
- J 17. GraphQL Planets Cached: 351.91ms, 4203 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 345.29ms, 6284 bytes

Saving Results...

Results saved to performance_results_SydneyAustralia.json

Test Summary for SydneyAustralia:

- J 1. Ping prod1 (Oracle UK): 275.25ms
- J 2. Ping prod2 (Google US): 198.97ms
- √ 3. Ping prod3 (AWS Singapore): 92.26ms
- J 4. Ping default (Route53): 92.21ms
- √ 5. NASA APOD Today Direct: 849.31ms
- J 6. NASA APOD Jan 1 2000 Direct: 681.57ms
- J 7. GraphQL APOD Today Non-Cached: 27515.56ms
- √ 8. GraphQL APOD Today Cached: 346.6ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 24700.93ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 345.07ms
- J 11. NASA EONET Direct: 2917.26ms
- J 12. GraphQL Events Non-Cached: 3086.33ms
- J 13. GraphQL Events Cached: 522.84ms
- J 14. JPL Planets 1-8 Single Thread: 4032.29ms
- J 15. JPL Planets 1-8 Multi Thread: 781.72ms
- J 16. GraphQL Planets Non-Cached: 77291.28ms
- J 17. GraphQL Planets Cached: 351.91ms
- √ 18. GraphQL Articles: 345.29ms

Starting performance tests from PennsylvaniaUSA

Test 1-4: Infrastructure Ping Tests

- J 1. Ping prod1 (Oracle UK): 84.95ms, 0 bytes
- J 2. Ping prod2 (Google US): 51.61ms, 0 bytes
- J 3. Ping prod3 (AWS Singapore): 242.46ms, 0 bytes
- J 4. Ping default (Route53): 47.35ms, 0 bytes

Test 5-10: APOD Performance Tests

- J 5. NASA APOD Today Direct: 641.67ms, 1136 bytes
- J 6. NASA APOD Jan 1 2000 Direct: 403.05ms, 1038 bytes
- J 7. GraphQL APOD Today Non-Cached: 32208.62ms, 2625 bytes
- J 8. GraphQL APOD Today Cached: 228.38ms, 2625 bytes
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 24831.27ms, 2170 bytes
- J 10. GraphQL APOD Jan 1 2000 Cached: 231.94ms, 2170 bytes

Test 11-14: Events Performance Tests

- J 11. NASA EONET Direct: 529.54ms, 164003 bytes
- J 12. GraphQL Events Non-Cached: 1743.06ms, 50466 bytes
- J 13. GraphQL Events Cached: 370.49ms, 50466 bytes

Test 14-17: JPL Planets Performance Tests

Testing JPL single threaded...

- J 14. JPL Planets 1-8 Single Thread: 2786.42ms, 1168 bytes
- Testing JPL multi threaded...
- J 15. JPL Planets 1-8 Multi Thread: 360.41ms, 1168 bytes
- J 16. GraphQL Planets Non-Cached: 71970.7ms, 4364 bytes
- J 17. GraphQL Planets Cached: 219.79ms, 4364 bytes

Test 18: Articles Performance Test

J 18. GraphQL Articles: 216.25ms, 6284 bytes

Saving Results...

Results saved to performance_results_PennsylvaniaUSA.json

Test Summary for PennsylvaniaUSA:

- J 1. Ping prod1 (Oracle UK): 84.95ms
- J 2. Ping prod2 (Google US): 51.61ms
- J 3. Ping prod3 (AWS Singapore): 242.46ms
- J 4. Ping default (Route53): 47.35ms
- √ 5. NASA APOD Today Direct: 641.67ms
- J 6. NASA APOD Jan 1 2000 Direct: 403.05ms
- J 7. GraphQL APOD Today Non-Cached: 32208.62ms
- J 8. GraphQL APOD Today Cached: 228.38ms
- J 9. GraphQL APOD Jan 1 2000 Non-Cached: 24831.27ms
- J 10. GraphQL APOD Jan 1 2000 Cached: 231.94ms
- J 11. NASA EONET Direct: 529.54ms
- J 12. GraphQL Events Non-Cached: 1743.06ms
- J 13. GraphQL Events Cached: 370.49ms
- J 14. JPL Planets 1-8 Single Thread: 2786.42ms
- J 15. JPL Planets 1-8 Multi Thread: 360.41ms
- J 16. GraphQL Planets Non-Cached: 71970.7ms
- J 17. GraphQL Planets Cached: 219.79ms
- √ 18. GraphQL Articles: 216.25ms