

## Elasticsearch: Commands & Configuration

1. What command would you use to list all indices in your Elasticsearch cluster?
2. How would you use the `_cat/nodes` API to view node roles and health in the cluster?
3. Demonstrate how to create a new index with a custom mapping using a cURL command.
4. Show the command to update the `number_of_replicas` for an existing index without restarting the cluster.
5. Which command changes a cluster from read-only mode back to read-write?
6. How do you apply a persistent cluster setting via the Elasticsearch REST API?
7. Update JVM heap size for Elasticsearch and verify the change.
8. Demonstrate how to add a new node to an existing cluster and validate successful joining.
9. What configuration in `elasticsearch.yml` sets the minimum number of master-eligible nodes?
10. How would you enable encryption in transit between Elasticsearch nodes?
11. Using API, create a user with `read` privileges on an index and test access.
12. Provide the cURL command to delete all documents from an index but preserve the index itself.
13. How would you configure cross-cluster search in Elasticsearch?
14. Using a command, refresh an index to make recent operations searchable immediately.
15. Demonstrate how to trigger a snapshot backup of selected indices using the API.
16. Show how to install a plugin (e.g., `ingest-geoip`) into Elasticsearch.
17. What command retrieves current shard allocation for a given index?
18. List the steps to tune index refresh intervals through both `elasticsearch.yml` and API.
19. How would you temporarily disable allocation of shards in the cluster?
20. How do you check and change the log level of Elasticsearch dynamically?

## Kibana: Configuration & Command-Line Tasks

21. Which command starts Kibana from the command line and sets a custom configuration path?
22. Show a snippet of `kibana.yml` to enable SSL on the Kibana server.
23. Describe how to configure Kibana to connect to a remote Elasticsearch instance.
24. Using a configuration file, enable role-based access control for dashboard access.

25. How would you configure Spaces in Kibana to provide isolated work areas?
26. Write the command to generate or update the encryption keys for securing session data in Kibana.
27. How do you configure Kibana to listen on all network interfaces instead of just `localhost`?
28. Show the steps to enable reporting features in Kibana.
29. Demonstrate how to configure logging level to `debug` in `kibana.yml`.
30. How would you provision and test a new connector from Kibana to an external alerting system?

## Logstash: Commands, Pipelines & Configuration

31. What command line is used to test a Logstash pipeline configuration file without actually running the pipeline?
32. Show how to reload a Logstash configuration automatically when files change.
33. Demonstrate creating a persistent queue for reliable ingestion using `logstash.yml`.
34. What command checks installed input/output/filter plugins in Logstash?
35. Describe editing `pipelines.yml` to add two parallel pipeline definitions.
36. Use a command to manually trigger Logstash with a specific configuration file for troubleshooting.
37. How do you set environment variables for secret management in Logstash pipeline configs?
38. Show a configuration snippet to output data to both Elasticsearch and a file in Logstash.
39. Provide the command for installing a new filter plugin in Logstash.
40. Demonstrate how to tail Logstash logs in real time for troubleshooting pipeline errors.

## Advanced Administration & Real-World Troubleshooting

41. Given a node out of disk, use commands to relocate shards and unblock writes on indices.
42. Use Kibana Dev Tools to issue a multi-index search query via the Console.
43. Rotate Elasticsearch access credentials via command and configuration.
44. Configure Logstash pipelines with conditionals that partition input data by hostname.
45. Apply a transient cluster setting in Elasticsearch; show how to revert it back.
46. List the steps to enable detailed audit logging in Elasticsearch via configuration.

47. Script a scheduled index deletion policy using Index Lifecycle Management (ILM).
48. Provide an example of configuring and verifying API key authentication for log shippers.
49. How would you automate exporting dashboards from Kibana for backup purposes?
50. Demonstrate a full-stack configuration change: Add a new log field in Logstash, map it in Elasticsearch, and render it on a Kibana dashboard.