Instructions & Tasks

You work as an Elasticsearch administrator for a data analytics company that wants to use your existing 3-node Elasticsearch cluster to analyze a few data sets. To facilitate the indexing of each data set, you need to configure the necessary index templates so that the data is stored in Elasticsearch with the correct mappings. The required templates are described below:

| **Name** | **Index Pattern** | **Aliases** | **Primary Shards** | **Replica Shards** | **Explicit Mapping** | **Dynamic Mapping** |
| --- | --- | --- | --- | --- | --- | --- |
| customers | customers-\* | customers | 2 | 1 | field: year\_to\_date type: double | name: long\_to\_integer match mapping type: long mapping: integers |
| partners | partners-\* | partners | 2 | 1 | field: address type: text | name: string\_to\_keyword match mapping type: string mapping: keyword |
| leads | leads-\* | leads | 2 | 1 | field: address type: text  field: estimate type: double | name: string\_to\_keyword match mapping type: string match: lead\_\* unmatch: \*\_text mapping: keyword |

Your 3-node Elasticsearch cluster and a Kibana instance are already up and running on the master node. You can create the required index templates with either the Kibana Console tool or with curl on the command line. If you decide to use the Kibana Console tool for this activity, you will need to perform Task 1. Otherwise, skip Task 1 and continue to Task 2.

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**OPTIONAL: Establish a remote tunnel to Kibana on the master node.**

**NOTE: This task only needs to be performed if you're using the Kibana UI to interact with Elasticsearch.**

Set Up a Remote Tunnel

1. Open a new terminal window and use SSH to log in to the master node as cloud\_user with port forwarding.

ssh cloud\_user@your\_public\_ip -L 5601:localhost:5601

Open the Kibana Console Tool

1. In your local web browser, go to http://localhost:5601.
2. In Kibana, navigate to **Dev Tools** in the side navigation bar.
3. Select the **Console** tool (it should be the default tool that loads).

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**Create the `customers` index template.**

Option 1: Kibana Console Tool

Create the Index Template

1. To create the customers index template, use the Console to send the following request to Elasticsearch:
2. PUT \_template/customers
3. {
4. "aliases": {
5. "customers": {}
6. },
7. "index\_patterns": ["customers-\*"],
8. "mappings": {
9. "doc": {
10. "dynamic\_templates": [
11. {
12. "long\_to\_integer": {
13. "match\_mapping\_type": "long",
14. "mapping": {
15. "type": "integer"
16. }
17. }
18. }
19. ],
20. "properties": {
21. "year\_to\_date": {
22. "type": "double"
23. }
24. }
25. }
26. },
27. "settings": {
28. "number\_of\_shards": 2,
29. "number\_of\_replicas": 1
30. }

}

Option 2: Command line curl

Create the Index Template

1. To create the customers index template, execute the following from the command line of one of the nodes:
2. curl -XPUT "http://localhost:9200/\_template/customers" -H 'Content-Type: application/json' -d'
3. {
4. "aliases": {
5. "customers": {}
6. },
7. "index\_patterns": ["customers-\*"],
8. "mappings": {
9. "doc": {
10. "dynamic\_templates": [
11. {
12. "long\_to\_integer": {
13. "match\_mapping\_type": "long",
14. "mapping": {
15. "type": "integer"
16. }
17. }
18. }
19. ],
20. "properties": {
21. "year\_to\_date": {
22. "type": "double"
23. }
24. }
25. }
26. },
27. "settings": {
28. "number\_of\_shards": 2,
29. "number\_of\_replicas": 1
30. }

}'

help

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**Create the `partners` index template.**

Option 1: Kibana Console Tool

Create the Index Template

1. To create the partners index template, use the Console to send the following request to Elasticsearch:
2. PUT \_template/partners
3. {
4. "aliases": {
5. "partners": {}
6. },
7. "index\_patterns": ["partners-\*"],
8. "mappings": {
9. "doc": {
10. "dynamic\_templates": [
11. {
12. "string\_to\_keyword": {
13. "match\_mapping\_type": "string",
14. "mapping": {
15. "type": "keyword"
16. }
17. }
18. }
19. ],
20. "properties": {
21. "address": {
22. "type": "text"
23. }
24. }
25. }
26. },
27. "settings": {
28. "number\_of\_shards": 2,
29. "number\_of\_replicas": 1
30. }

}

Option 2: Command line curl

Create the Index Template

1. To create the partners index template, execute the following from the command line of one of the nodes:

curl -XPUT "http://localhost:9200/\_template/partners" -H 'Content-Type: application/json' -d'

{

"aliases": {

"partners": {}

},

"index\_patterns": ["partners-\*"],

"mappings": {

"doc": {

"dynamic\_templates": [

{

"string\_to\_keyword": {

"match\_mapping\_type": "string",

"mapping": {

"type": "keyword"

}

}

}

],

"properties": {

"address": {

"type": "text"

}

}

}

},

"settings": {

"number\_of\_shards": 2,

"number\_of\_replicas": 1

}

}'

help

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**Create the `leads` index template.**

Option 1: Kibana Console Tool

Create the Index Template

1. To create the leads index template, use the Console to send the following request to Elasticsearch:
2. PUT \_template/leads
3. {
4. "aliases": {
5. "leads": {}
6. },
7. "index\_patterns": ["leads-\*"],
8. "mappings": {
9. "doc": {
10. "dynamic\_templates": [
11. {
12. "string\_to\_keyword": {
13. "match\_mapping\_type": "string",
14. "match": "lead\_\*",
15. "unmatch": "\*\_text",
16. "mapping": {
17. "type": "keyword"
18. }
19. }
20. }
21. ],
22. "properties": {
23. "address": {
24. "type": "text"
25. },
26. "estimate": {
27. "type": "double"
28. }
29. }
30. }
31. },
32. "settings": {
33. "number\_of\_shards": 2,
34. "number\_of\_replicas": 1
35. }

}

Option 2: Command line curl

Create the Index Template

1. To create the leads index template, execute the following from the command line of one of the nodes:
2. curl -XPUT "http://localhost:9200/\_template/leads" -H 'Content-Type: application/json' -d'
3. {
4. "aliases": {
5. "leads": {}
6. },
7. "index\_patterns": ["leads-\*"],
8. "mappings": {
9. "doc": {
10. "dynamic\_templates": [
11. {
12. "string\_to\_keyword": {
13. "match\_mapping\_type": "string",
14. "match": "lead\_\*",
15. "unmatch": "\*\_text",
16. "mapping": {
17. "type": "keyword"
18. }
19. }
20. }
21. ],
22. "properties": {
23. "address": {
24. "type": "text"
25. },
26. "estimate": {
27. "type": "double"
28. }
29. }
30. }
31. },
32. "settings": {
33. "number\_of\_shards": 2,
34. "number\_of\_replicas": 1
35. }

}'

Tools

**[Instant Terminal](https://ssh.instantterminal.linuxacademy.com/" \t "_blank)**

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Introduction