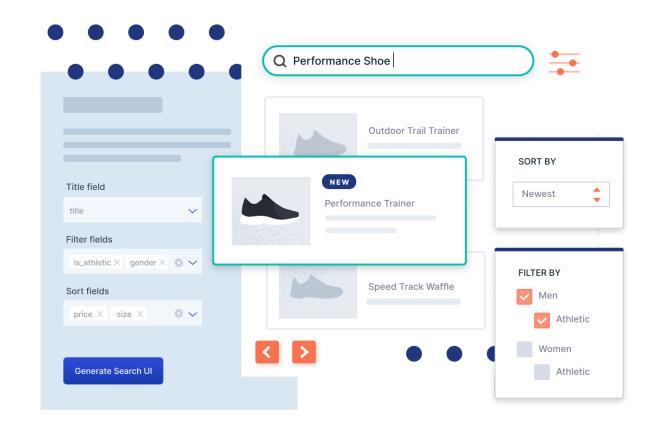
# **Introduction into Elastic App Search**

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Community Advocate
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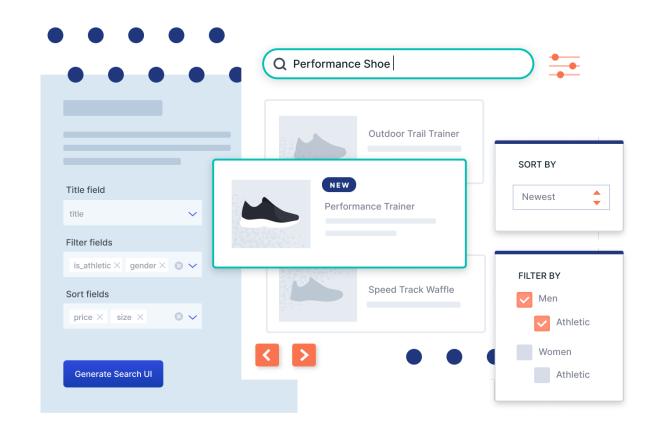
# What is App Search?





## **App Search?**

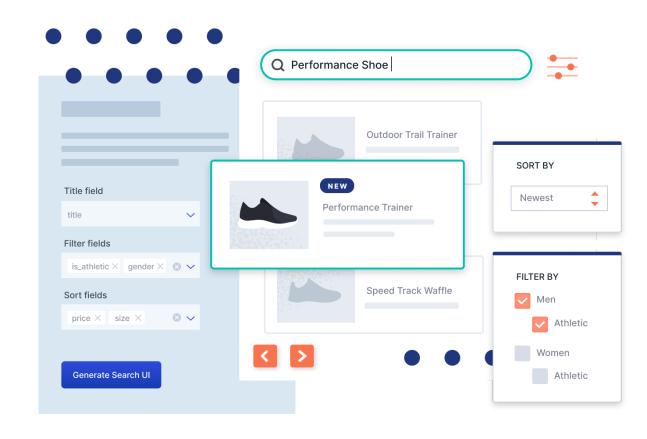
- Synonym management
- Relevance tuning
- Curated Results
- Facets
- Easy UI Building
- API driven indexing





## **App Search?**

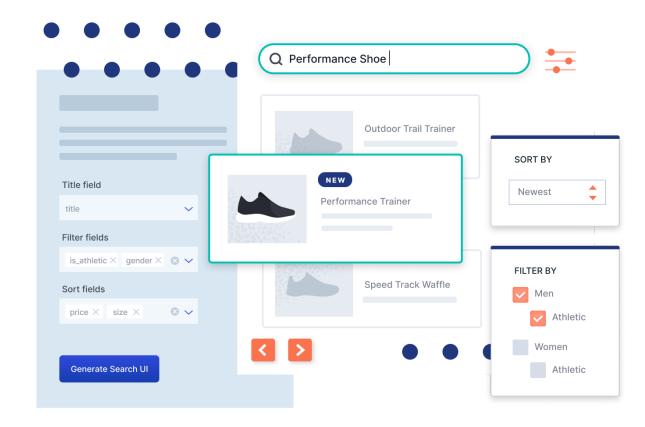
- Language Optimization
- Query suggestions
- Result suggestions
- API Logs
- Analytics: Queries, clicks, counts





# **Deployment**

- Run locally
- Elastic Cloud





#### Create deployment

Name your deployment

Give your deployment a name

app-search-deployment

Select a cloud platform

Pick your cloud and let us handle the rest. No additional accounts required.



Google Cloud Platform



Azure



Amazon Web Services

3 Select a region

us-central1 (lowa)

us-west1 (Oregon)

europe-west1 (Belgium)

europe-west3 (Frankfurt)

asia-northeast1 (Tokyo)

australia-southeast1 (Sydney)

us-east4 (N. Virginia)

europe-west2 (London)

northamerica-northeast1 (Montreal)

asia-south1 (Mumbai)

asia-southeast1 (Singapore)

southamerica-east1 (Sao Paulo)



us-east1 (South Carolina)

asia-east1 (Taiwan)

europe-north1 (Finland)

europe-west4 (Netherlands)

Set up your deployment

Elastic Stack version
7.8.0 Edit

Select a deployment to restore from one of its snapshots

Monitoring
Enable monitoring by shipping metrics to a deployment

Security
Enable traffic filtering

5 Optimize your deployment

#### I/O Optimized

Recommended

Use for search and general allpurpose workloads. Includes a balance of compute, memory, and storage. Default specs



#### Compute Optimized

Run CPU-intensive workloads or run smaller workloads costeffectively when you need less memory and storage. Default specs



#### Memory Optimized

Perform memory-intensive operations efficiently, including workloads with frequent aggregations. Default specs



#### Hot-Warm Architecture

Use for time-series analytics and logging workloads that benefit from automatic index curation. Default specs

octuant apec



#### Cross Cluster Search

Use to search data across one or more associated deployments Default specs



#### Elastic Enterprise Search

Create search experiences with a refined set of APIs and tools.

Default specs



Elastic Cloud supports many more options to cater to your specific use case such as hot-warm architecture optimized for logging, compute-focused setup optimized for analytics etc. Learn more 🗈

Deployment pricing

Hourly rate

\$0.4344

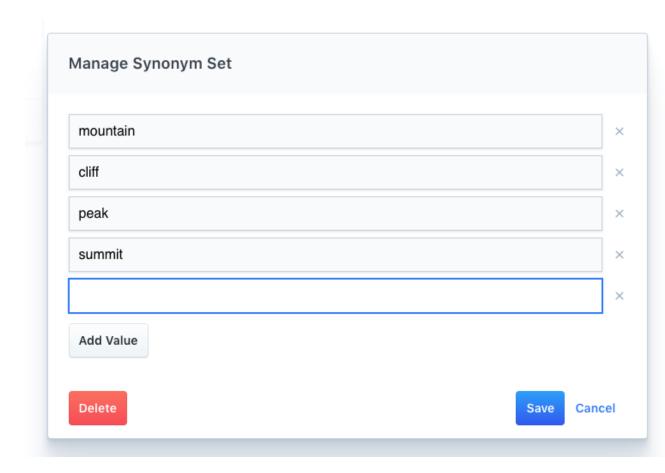


Create deployment

Customize deployment

Equivalent API request

# **Synonym Management**



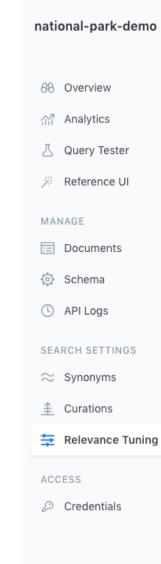


## **Relevance Tuning**

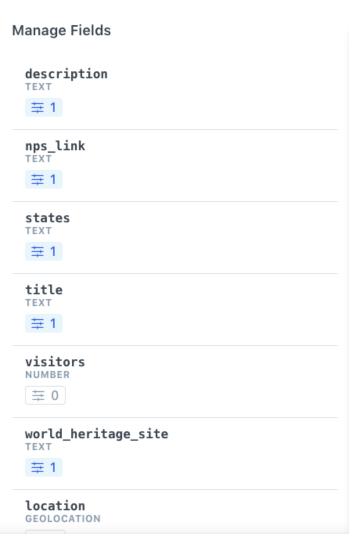
- Field weight
- Boost, also based on field values (think recency, proximity, rating boosts)



## **Relevance Tuning**



# Relevance Tuning Set field weights and customize boosting.



Restore Defaults



## **App Search Clients**

- JavaScript/Node
- PHP
- Python
- Ruby
- Search UI



## **Indexing data**

- Requires an **Engine** in App Search
- No schema definition required, everything is text by default
- Arbitrary JSON can be sent
- Field id is unique identifier

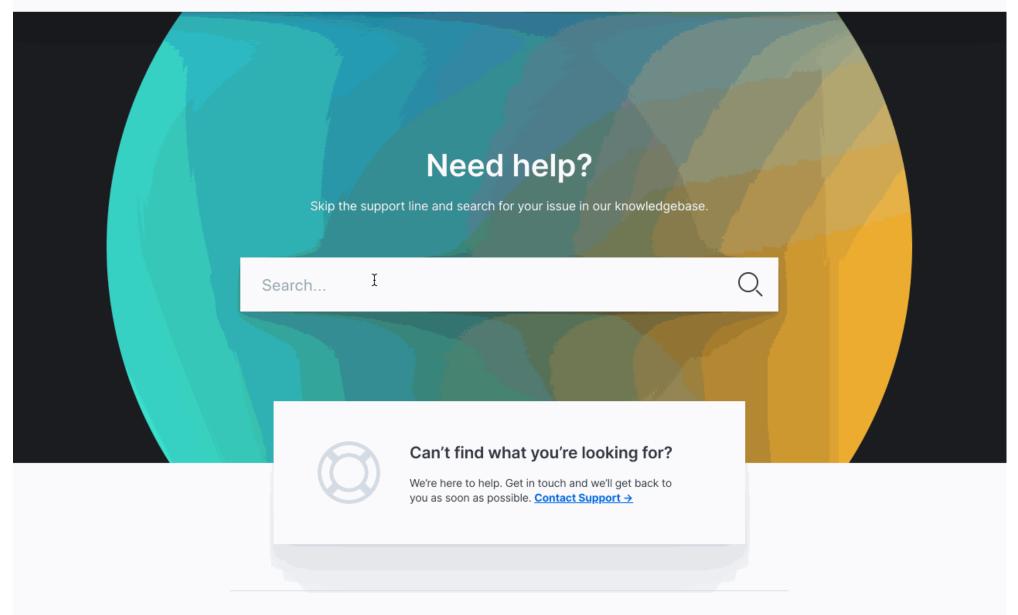


### **Indexing data**

```
curl -X POST 'https://$HOST/api/as/v1/engines/$ENGINE_NAME/documents' \
-H 'Content-Type: application/json' \
-H 'Authorization: Bearer [PRIVATE_API_KEY]' \
-d '[
        "id": "first_document".
        "description": "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor...",
        "title": "My first title",
        "created_at": "2020-10-10T12:34:56Z",
        "size" : 25
        "id": "second_document",
        "description": "Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor...",
        "title": "My second title",
        "created_at": "2020-10-10T00:00:12Z",
        "size" : 67
```

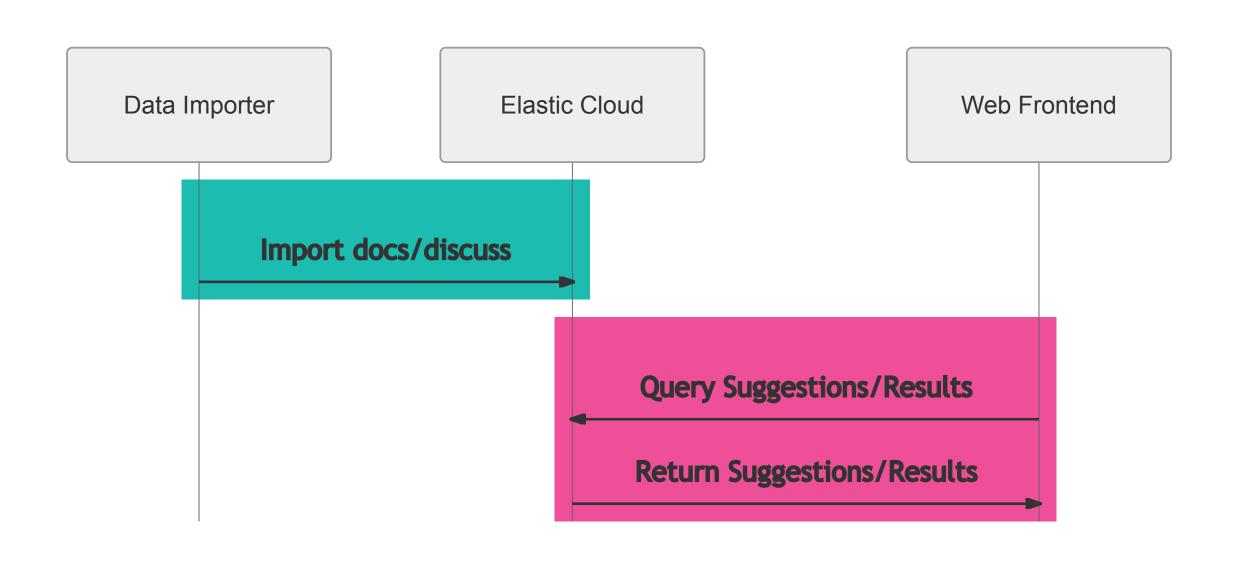






## **Knowledge Base Sample App**

- Two components: web frontend, data importer
- Two engines: elastic-co-discuss, elastic-co-docs



### **Clone Repository**

```
git clone https://github.com/elastic/app-search-kb-demo
cd app-search-kb-demo
# this will take a bit...
docker build --target frontend -t app-search-kb-demo/frontend .
docker build --target dataimport -t app-search-kb-demo/dataimport .
```

## **Configure credentials**

```
export AS_BASE_URL="https://fc12fb2325dd4945a0095d60577bfa00.app-search.us-east-1.aws.found.io"
export AS_PRIVATE_API_KEY="private-2mfghuirex81t5346879aw3n"
export AS_SEARCH_API_KEY="search-eirws4ynagfdhgeep63ywscd"
```

#### **Import Data into Elastic Cloud**

```
export AS_BASE_URL="https://fc12fb2325dd4945a0095d60577bfa00.app-search.us-east-1.aws.found.io"
export AS_PRIVATE_API_KEY="private-2mfghuirex81t5346879aw3n"
export AS_SEARCH_API_KEY="search-eirws4ynagfdhgeep63ywscd"

# import data into Elastic Cloud, might take a few minutes
docker run --rm --env AS_BASE_URL=$AS_BASE_URL \
    --env AS_PRIVATE_API_KEY=$AS_PRIVATE_API_KEY app-search-kb-demo/dataimport
```

#### **Start Frontend**

```
export AS_BASE_URL="https://fc12fb2325dd4945a0095d60577bfa00.app-search.us-east-1.aws.found.io"
export AS_PRIVATE_API_KEY="private-2mfghuirex81t5346879aw3n"
export AS_SEARCH_API_KEY="search-eirws4ynagfdhgeep63ywscd"

# import data into Elastic Cloud, might take a few minutes
docker run --rm --env AS_BASE_URL=$AS_BASE_URL \
    --env AS_PRIVATE_API_KEY=$AS_PRIVATE_API_KEY app-search-kb-demo/dataimport

# start the frontend
docker run --rm -p 5000:5000 --env AS_BASE_URL=$AS_BASE_URL \
    --env AS_SEARCH_API_KEY=$AS_SEARCH_API_KEY app-search-kb-demo/frontend
```

#### Demo

#### **Demo Tasks**

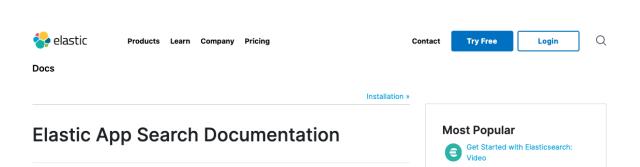
- Check out frontend
- Relevancy
- Synonyms
- Test UI builder

## **Summary**

- Frontend: Presentation
- Middleware: Search logic
- Backend: Document actions

# **Next steps**

# **App Search Docs**



+ App Search Guide: 7.8 (current)

Installation
Getting started
Authentication
Limits

Security & Users

+ Guides
+ API Reference
API Logs
API Clients
+ Configuration
+ Migrating & Upgrading
Troubleshooting

Intro to Kibana: Video

ELK for Logs & Metrics: Video

#### **Discuss Forum**





Category	Topics	Latest			
Announcements  Release and security announcements and other bits about all of our Elastic products that we think	454 6 unread	4	♣ ▼ Notes on Using These Forums ■ Meta Elastic	Apr 2	20
will be useful to everyone.  Security Announcements Community Ecosystem		6	How to create key value from Nested fields •   ■ Logstash		
Elastic Stack  Elasticsearch, Kibana, Beats, and Logstash - also known as the ELK Stack. Reliably and securely take data from any source, in any format, then search, analyze, and visualize it in real time. Please post your your your topic under the relevant product category.  Elasticsearch 885 unread Kibana 55 unread Beats 2 unread 49 new 27 new 27 new	438 / week 972 unread 139 new		Create a new index to store alerts ②  Elasticsearch stack-alerting		4
		В	How to use value from elasticsearch index as parameter in ES SQL functions, like DATE_DIFF() •  Elasticsearch stack-sql		10
Elastic Enterprise Search	3 / week		NegativeArraySizeException:		
Easily implement powerful, modern search experiences for your busy team. Quickly add pretuned search to your website, app, or workplace. Search it all, simply.	2 new		-1680966849, HostUnreachableError and OOM • Logstash		10
■ App Search 1 new ■ Site Search ■ Workplace Search			How to de-duplicate results in Kibana		
Elastic Observability  Bring your logs, infrastructure and availability metrics, and APM traces together at scale in a single stack so you can monitor and react to events happening anywhere in your environment. And it's free and open.	20 / week 1 unread 3 new	N	Search • kibana query-language		1!
		C	Feature Request: trigger suppresion on signal actions  ■ Elastic Security		16
■ APM 2 new ■ Logs ■ Metrics ■ Uptime 1 unread 1 new			Della Communitation and		
Elastic Security	6 / week		Rally freezes at the end  Elasticsearch rally		19
Integrate free and open SIEM, and endpoint, to prevent, detect, and respond to threats.  Endpoint Security SIEM 1 unread 2 new	1 unread 4 new	S	"Refresh every" field gets reset to 0.01 seconds •		19

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- Introduction to Observability: Logging
- Metrics Fundamentals
- APM Fundamentals
- Kibana Fundamentals
- . Kibana for Splunk Users
- Fundamentals of Securing Elasticsearch
- Elastic SIEM Fundamentals
- Elastic Endpoint Security Fundamentals
- · Anomaly Detection for Cybersecurity
- ECE Fundamentals



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#### **Q & A**

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Diagrams: unDraw