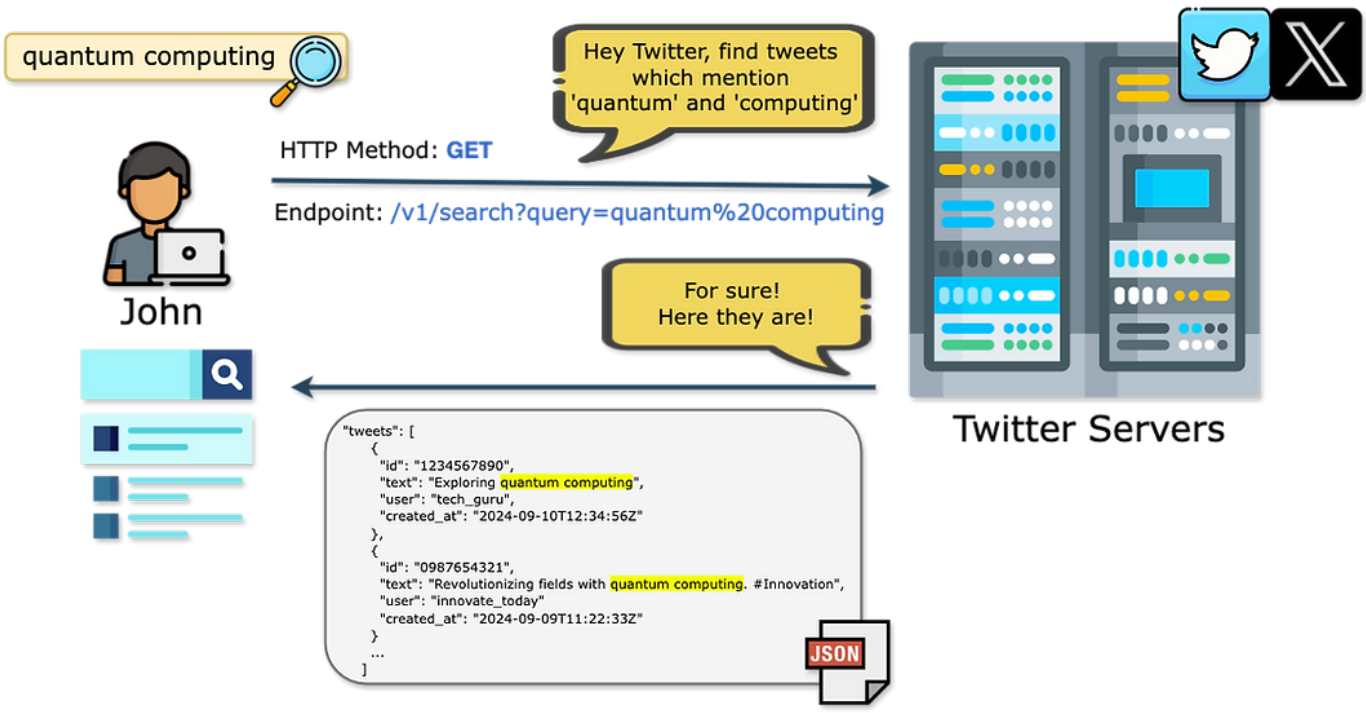
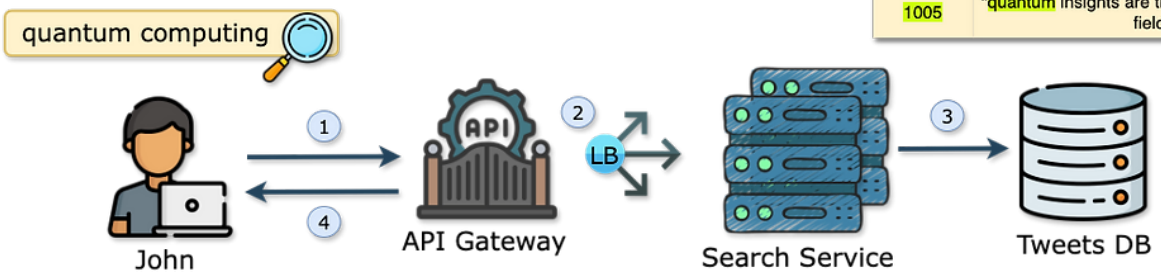
API Design- Twitter Search

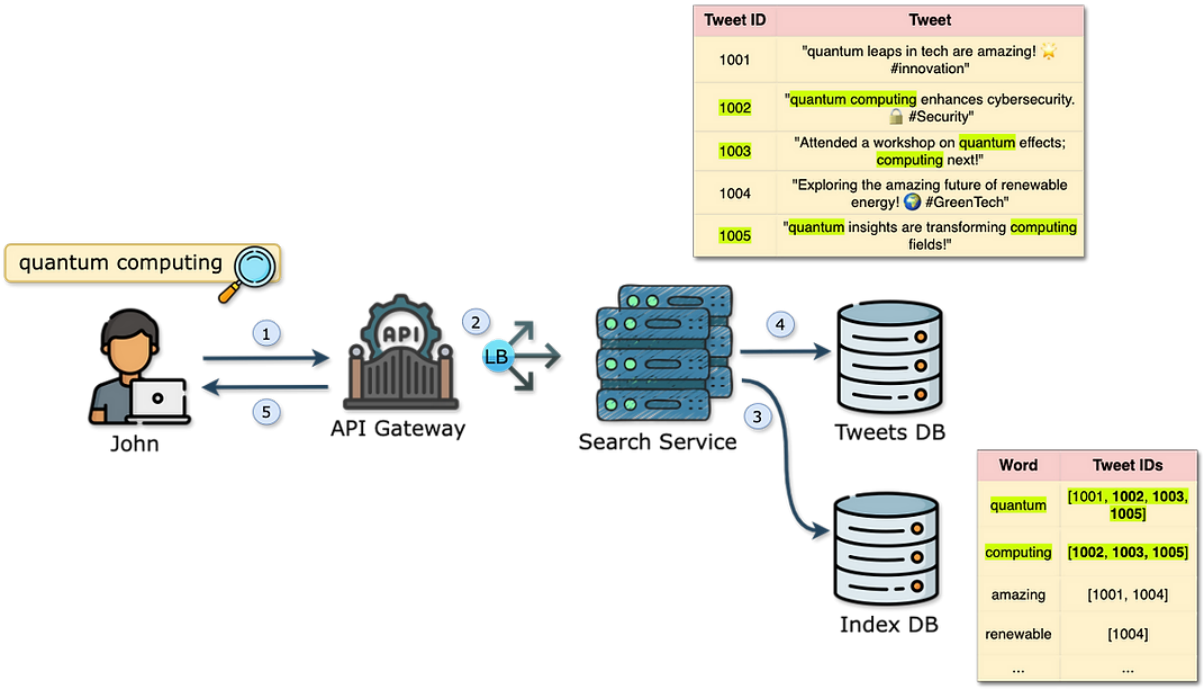


High Level Design- Twitter Search

Tweet ID	Tweet
1001	"quantum leaps in tech are amazing! 💥 #innovation"
1002	"quantum computing enhances cybersecurity. 🔒 #Security"
1003	"Attended a workshop on quantum effects; computing next!"
1004	"Exploring the amazing future of renewable energy! 🌍 #GreenTech"
1005	"quantum insights are transforming computing fields!"



High Level Design- Twitter Search (Indexing)



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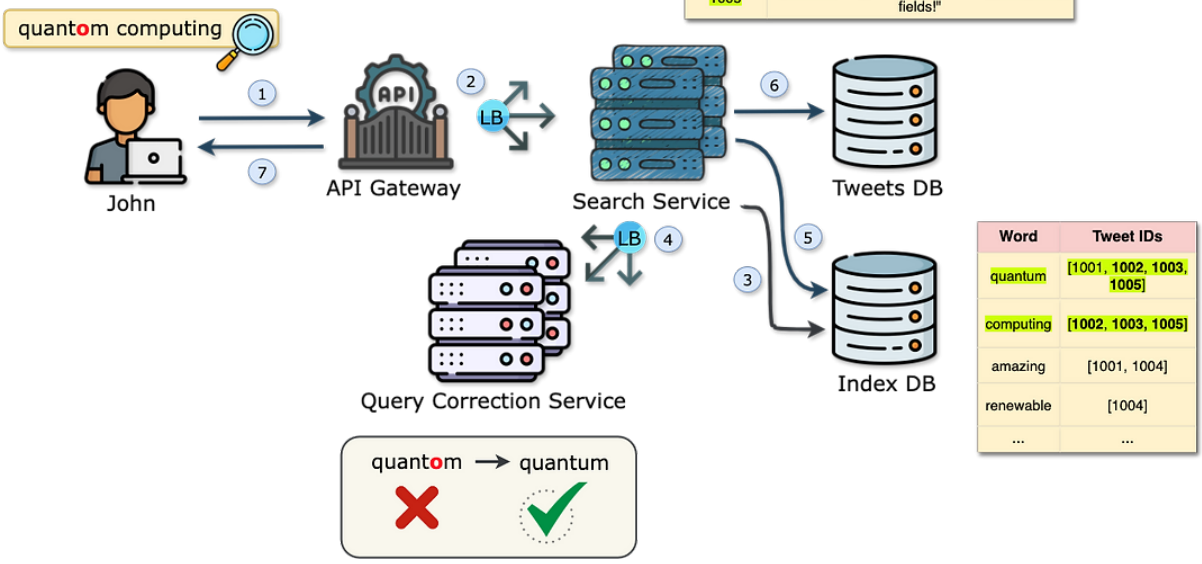
Word	Tweet IDs
quantum	[1001, 1002, 1003, 1005]
computing	[1002, 1003, 1005]
amazing	[1001, 1004]
renewable	[1004]
...	...

High Level Design- Twitter Search (Fuzzy Search)



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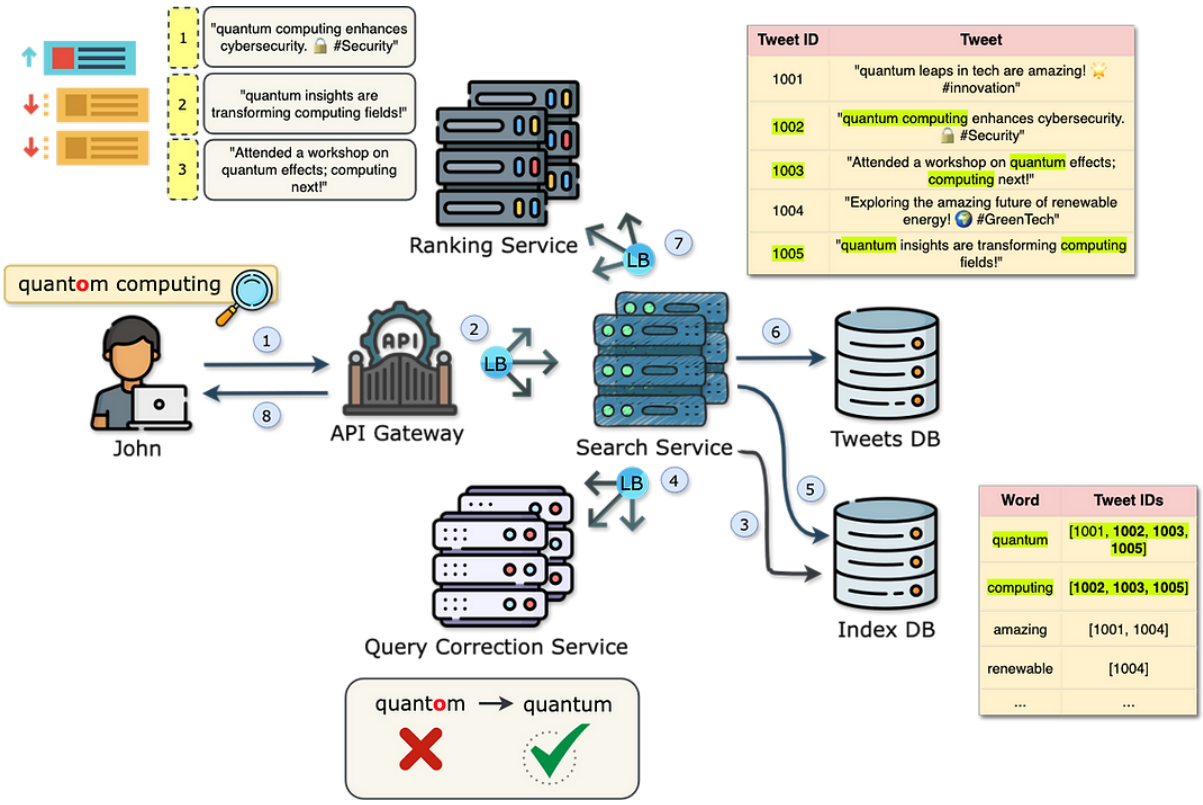
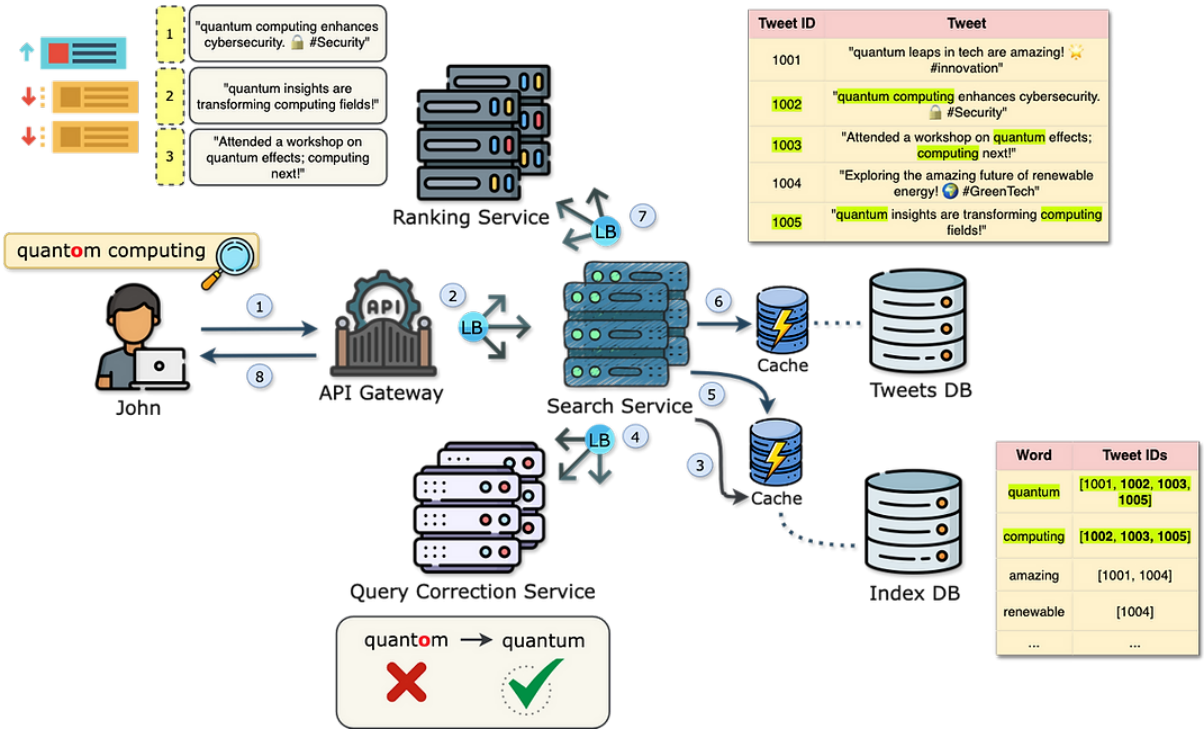
amazing	[1001, 1004]
renewable	[1004]
...	...

High Level Design- Twitter Search (Ranking)

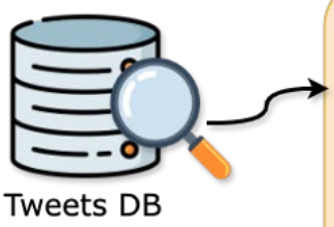


High Level Design- Twitter Search (Final Design)



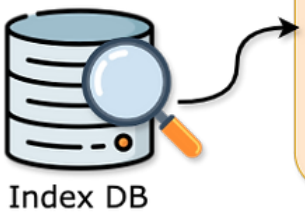
DATABSE SCHEMAS

Tweets DB Schema




```
{
  "TweetId": "Unique identifier for each tweet",
  "Text": "Content of the tweet",
  "UserId": "Identifier for the user who posted the tweet",
  "CreatedAt": "Timestamp when the tweet was created"
}
```

Index DB Schema




```
{
  "Keyword": "A specific word or hashtag",
  "TweetIds": ["List of tweet Ids having this keyword in the tweet"]
}
```

Query Correction Service (Fery to Ferry)

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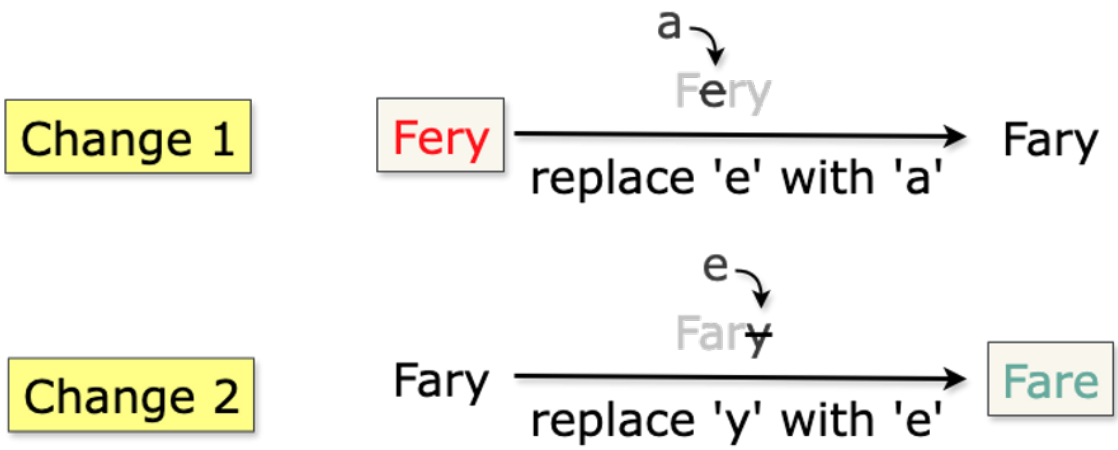
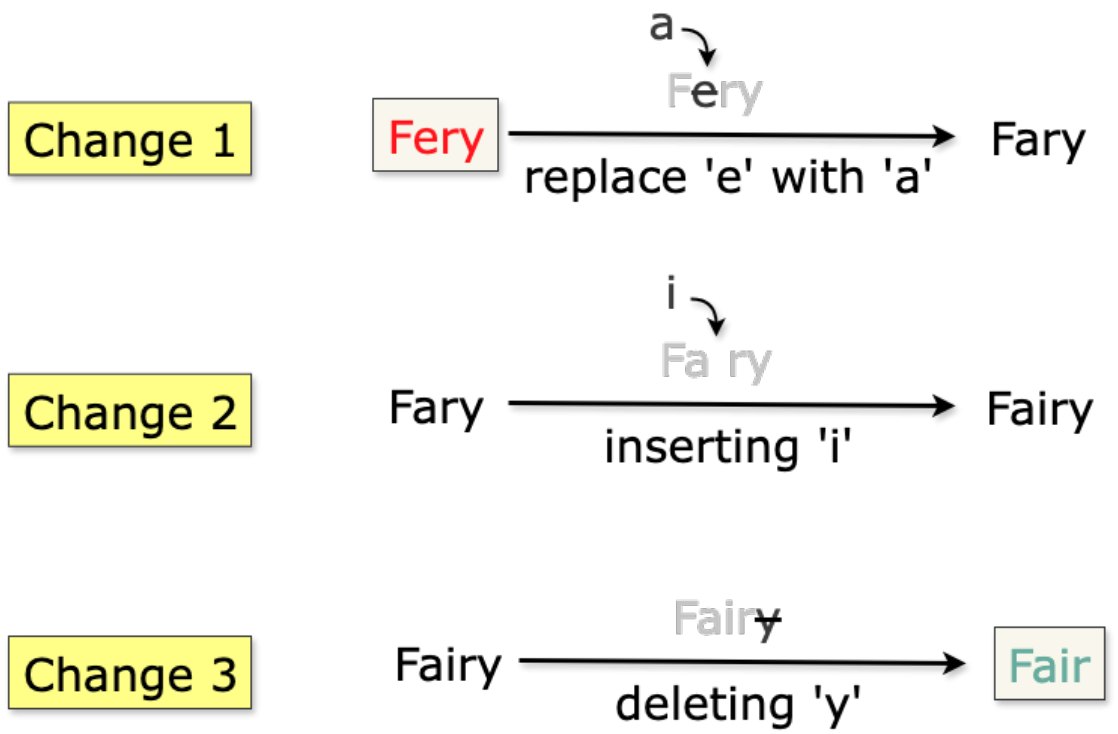
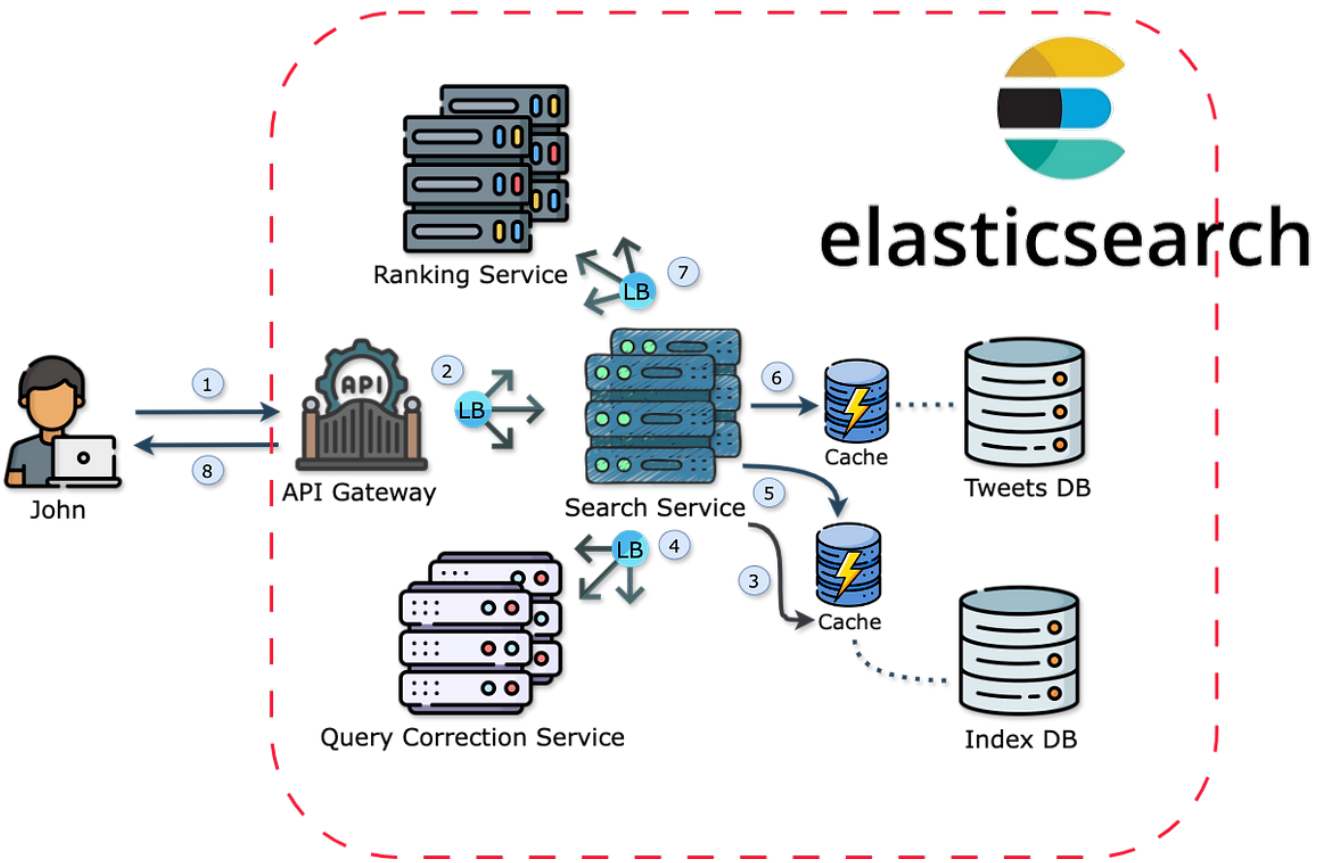


Query Correction Service (Fery to Fair)



Elastic Search