



**The Faculty of Information and Communication Technology
Mahidol University**

Project 2: Prototype IR System

Miss Russarin	Eaimrittikrai	6488021
Miss Supithcha	Jongphoemwatthanaphon	6488045
Miss Kanita	Karunkittikun	6488049

ITCS 414 Information Retrieval and Storage
Dr. Suppawong Tuarob

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Introduction

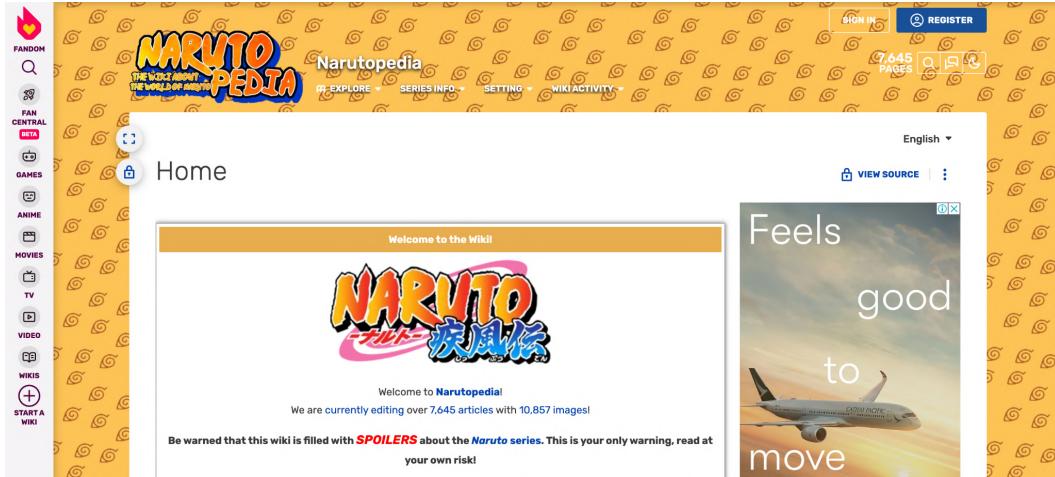
This project is an implementation of a comprehensive search system for Naruto characters' information. Naruto is a Japanese manga series that dives into the narrative of Naruto Uzumaki, a young ninja with aspirations of earning recognition from his peers and achieving the honored title of Hokage, the village leader. The primary goal of this search system is to provide insights and detailed information about Naruto characters to fans who are interested in an accessible platform to learn more about the information that they might not know about Naruto characters. Furthermore, it is beneficial for individuals who are unfamiliar with Naruto and would like to discover more about Naruto characters. There are a total of 105 Naruto characters in this search system with information about their names, descriptions, affiliations, background information, abilities, and pictures that the users can search for. This Naruto characters' search system strives to create a user-friendly and informative platform that caters to both dedicated fans and those new to the Naruto universe.

Problems that we are trying to solve

This project aims to address several key challenges and problems to provide users with a comprehensive and user-friendly resource for accessing Naruto characters' information. While there are numerous resources available for obtaining general information about Naruto including episode details and main characters' information, most of the time, those resources may be difficult and time-consuming to locate specific information about a particular Naruto character, especially with a series with a large number of characters like Naruto. This search system offers a centralized source of information, allowing users to explore in-depth details about each of the Naruto characters by typing in the search bar, users will be able to gain the information they desire to obtain. Moreover, some fans may want a way to find characters with specific traits or abilities without manually scanning through the entire character list. Thus, this search system provides advanced functionalities, such as multi-field search and partial word matching, enabling users to efficiently find characters based on specific criteria like descriptions, affiliations, or abilities. Finally, this search system allows the users to find character information without the necessity to remember the complete name of the character because it can return relevant results even when the input query matches only part of a word.

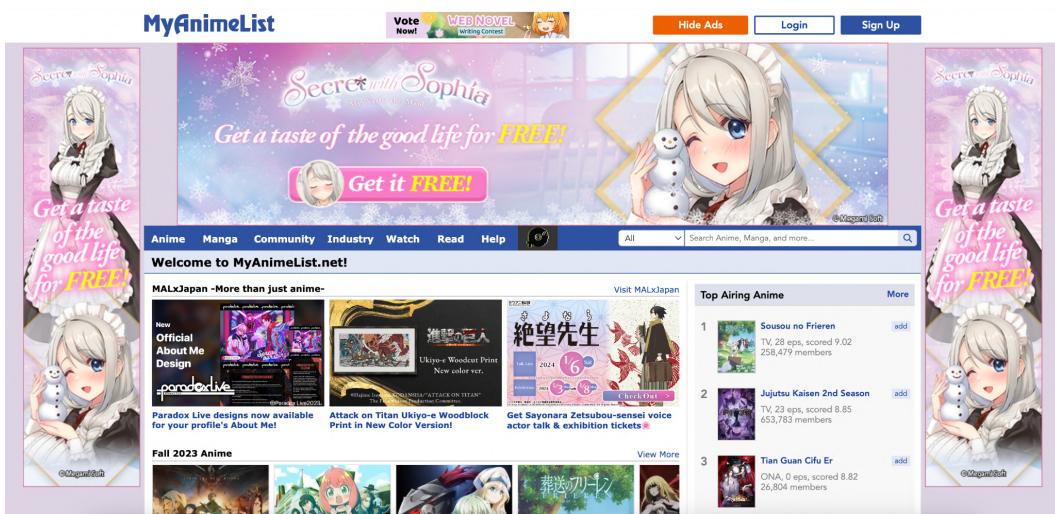
Existing relevant systems

Narutopedia



Narutopedia (naruto.fandom.com) is a website that provides comprehensive and popular online resources for information about several anime, movies, and games. The website offers a vast database of information about Naruto characters, character information, and much more. Narutopedia is known for its detailed character profiles, episode summaries, and thorough explanations of various aspects of the Naruto universe.

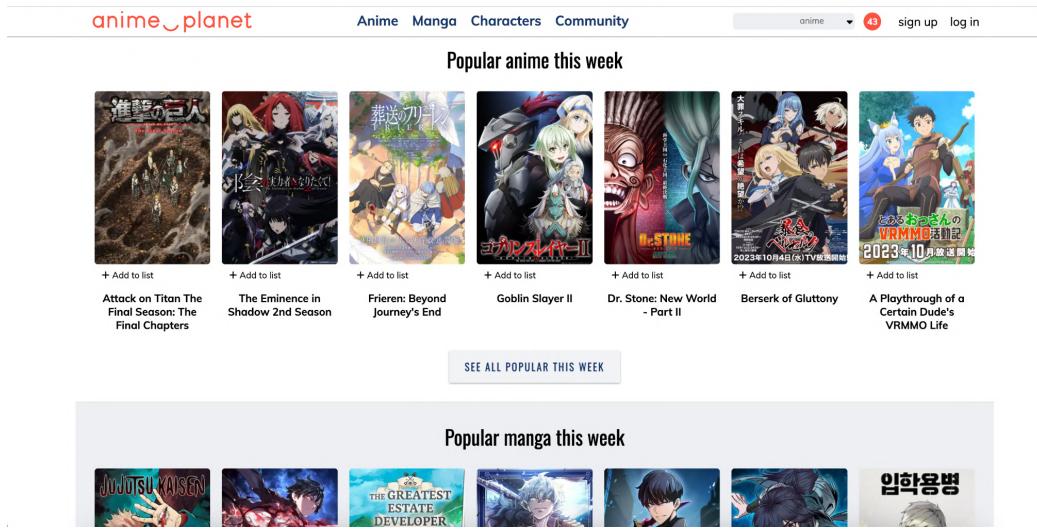
Myanimelist.net



MyAnimeList (myanimelist.net) abbreviated as MAL, is a popular and widely used social cataloging website and social networking that serves as a comprehensive resource for anime and

manga enthusiasts run by volunteers. It provides a wealth of information and features related to anime and manga series, making it a go-to platform for fans looking to explore, track, and engage with their favorite titles by providing its users with a list-like system to organize and score anime and manga.

Anime-planet.com



Anime-Planet (anime-planet.com) is a popular streaming website for anime and manga fans that features an extensive database of titles with summaries, personal tracking and recommendation lists, a robust community for user reviews and discussions, and detailed character information. The website encourages a strong sense of community, allowing users to connect and share their thoughts on anime and manga through forums and discussions. With features like seasonal anime charts and manga recommendations.

Implementation

- Data collection, example documents, and data statistics

The information of every character is retrieved from the website called Naruto Fandom (<https://naruto.fandom.com/wiki/Category:Characters>) which consists of more than thousands of characters' information, and the data is collected in the form of a JSON Document in which the document is uploaded into an index of Elasticsearch through the interface of Kibana.

The process of data collection is done manually by copying and pasting in the JSON format with 7 fields including the character's name, link to the character's picture, character's description, character's affiliation, character's background, character's ability, and character's appearance.

- Example of documents in the index

105 hits	
Documents	Field statistics
Sort fields	
Document	
✓ <input type="checkbox"/>	ability As the First Raikage and the founder of Kumo, A was undoubtedly a powerful shinobi. affiliation Kumogakure appearance A was a dark-skinned man, with prominent creases under his eyes and a mop of shaggy black hair, which partially obscured his forehead protector. In terms of attire, he wore a high-collared dark kimono-shirt, dark pants bound by a sash and a light-coloured scarf around his neck. He also wore s...
✓ <input type="checkbox"/>	ability As the Fourth Raikage, A is an extremely powerful shinobi, being chosen as the Supreme Leader of the Allied Shinobi Forces, even after losing his dominant arm. His signature fighting style combines the elements of ninjutsu and taijutsu to form nintaijutsu. Using it, he could easily directly engage in battle with a tailed beast, defeat a fully transformed Jūgo, and overwhelm a Mangekyō Sharingan-wielding Sasu...
✓ <input type="checkbox"/>	ability (empty) affiliation Sunagakure appearance Abiru has short puffy dark-coloured hair and big brown eyes. He wears a long-sleeved black shirt. background Abiru had only just entered the Academy and was inexperienced in ninjutsu. He used to play games with Tsuchinno, Kashike, and Tomari around Sunagakure. He loved football, but when his ball got stuck on a roof he had no way of getting it down since he had yet to...
✓ <input type="checkbox"/>	ability As with most members of Kara, Ada had been modified with Scientific Ninja Tools by Amado. While the true depths of her power is unknown, and she claims she can only use taijutsu, Amado has noted that her combat abilities exceed Jigen's. affiliation Kara, Konohagakure appearance Ada has long blue hair with loops on the tips and pink streaks, and a beauty mark under the outer corner on both of her eyes. H...
✓ <input type="checkbox"/>	ability (empty) affiliation Land of Ancestors appearance Aino had long black hair tied in a bun and brown eyes. She wore the uniform accustomed to attendants appropriate for women of her era with a pink bandana. background Aino lived a full millennium before the start of the main story. She worked as an the attendant of the emperor of the Land of Ancestors. After arriving on Earth, Kaguya was made Tenji's concubine a...
✓ <input type="checkbox"/>	ability (empty) affiliation Land of Waves appearance Akane has short brown hair and small dark-coloured eyes. background After he lost interest in Pochi, Akane threw him into the sea. When Inari hesitated to go in and save him, Akane pushed him in too. Although Inari started to drown, Akane and his friends left. After Kaiza saved Inari, he gave Akane a stern talking to. He appears to not own Pochi anymore...

- Tools and software

Elasticsearch

Elasticsearch is a tool for searching and analyzing data in web applications. It allows users to manage data in a multidimensional format and assign relevance scores to search results based on specified queries. Elasticsearch's ability to provide real-time results makes it efficient for quickly retrieving data. It works as a query-based system, allowing users to search and filter data based on specific criteria and combine data from multiple sources for flexible and rapid searching and analysis.

The main steps in the operation of Elasticsearch are:

- Data Storage: Elasticsearch stores data in structures called “documents” that utilize JSON to represent data within each record. Each document contains a group of searchable fields and is assigned a unique ID for data referencing. The example documents are provided in the previous section.
- Custom Text Analyzer: To implement a scalable search system, it is recommended that this search system should have a text analyzer. In this search system, the utilization of edge_ngram tokenizer is implemented to divide input text into a sequence of n-grams which is suitable for autocomplete or partial match scenarios [1].

The custom settings for text analysis	The example usage of edge_ngram tokenizer
<pre>PUT /naruto2 { "settings": { "analysis": { "analyzer": { "edge_ngram_analyzer": { "type": "custom", "tokenizer": "edge_ngram_tokenizer" } }, "tokenizer": { "edge_ngram_tokenizer": { "type": "edge_ngram", "min_gram": 2, "max_gram": 20, "token_chars": ["letter", "digit"] } } } } }</pre> <p>This edge_ngram_tokenizer divides text input into a minimum of 2 characters and a maximum of 20 characters. The only characters that can be part of a token are letters and digits.</p>	<pre>{ "tokens": [{ "token": "na", "start_offset": 0, "end_offset": 2, "type": "word", "position": 0 }, { "token": "nar", "start_offset": 0, "end_offset": 3, "type": "word", "position": 1 }, { "token": "naru", "start_offset": 0, "end_offset": 4, "type": "word", "position": 2 }, { "token": "narut", "start_offset": 0, "end_offset": 5, "type": "word", "position": 3 }, { "token": "naruto", "start_offset": 0, "end_offset": 6, "type": "word", "position": 4 }] }</pre>

- Sorting based on score: Elasticsearch assists in sorting search results based on specific values, such as relevance scores or time ranges. In this search system, boosting and boolean query are implemented with a focus on the "character_name" field and additional boosting based on the existence of this field.

Usage of boolean query

```
"function_score": {
  "query": {
    "bool": {
      "should": [
        {
          "match_phrase_prefix": {
            "character_name": keyword
          }
        },
        {
          "multi_match": {
            "query": keyword,
            "fields": ["character_name", "description", "affiliation", "background", "ability", "appearance"],
            "fuzziness": "AUTO"
          }
        },
        {
          "match": {
            "affiliation": {
              "query": keyword,
              "boost": 1
            }
          }
        }
      ],
      "minimum_should_match": 1,
      "boost": 2.0
    }
  }
}
```

The function_score utilizes a boolean query with multiple should clauses which indicates that at least one of the specified conditions should match [8]. By using the minimum_should_match parameter, it ensures that at least one of the conditions in the should array must match for a document to be considered a match and the match will be boosted to assign a higher importance.

Usage of weight-boosting

```
"functions": [
  {
    "filter": { "exists": { "field": "character_name" } },
    "weight": 3
  }
],
```

This function boosts documents where the "character_name" field exists by giving a higher score (weight of 3).

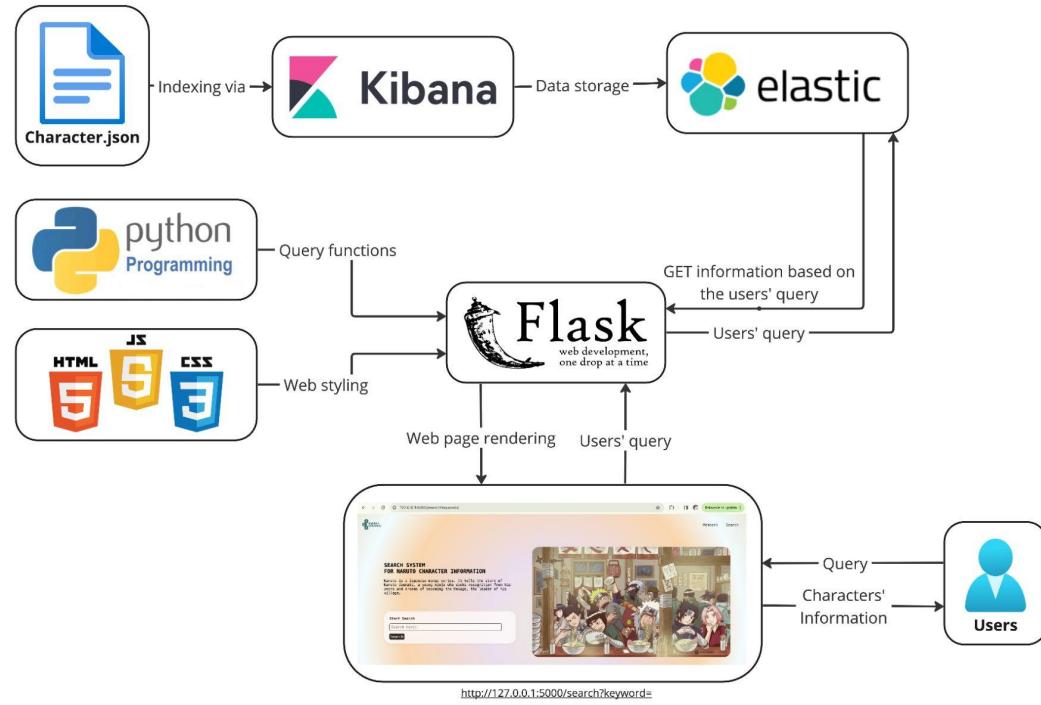
Kibana

Kibana is an open-source data visualization dashboard and exploration tool designed to work with Elasticsearch. Kibana is part of the Elastic Stack, which also includes Elasticsearch, Logstash, and Beats. Its primary purpose is to provide a user-friendly interface for data analysis, allowing users to interact with and visualize their data stored in Elasticsearch.

Flask

Flask is a micro web application framework for building web applications in Python that does not require particular tools or libraries. It is designed to be simple, easy to use, and ideal for small to medium-sized projects.

- System Diagram



Initially, characters' information, which is stored in a JSON file, is indexed in Elasticsearch via the interface of Kibana, and then Elasticsearch's powerful query DSL is utilized via Flask to search and retrieve data through Python programming language. Additionally, the final web page is styled by using HTML, JS, and CSS to attract the users who search for Naruto characters' information by inserting a query in the search box on the web page.

- Snapshots of the system

Before search:

In the search system navigation located in the left corner, clicking on 'Members' seamlessly navigates the user to the member section on the page, similar to 'Search' which will navigate to the search box. Moreover, in the top right corner of the header, users will find the ICT logo. A simple click on this logo seamlessly navigates the user to the official ICT website at <https://www.ict.mahidol.ac.th/>. Furthermore, all images within the system, excluding character images in the search result, are embedded with direct links to their respective sources.

The screenshot shows a web browser window with the URL 127.0.0.1:5000/search?keyword=. The page title is "SEARCH SYSTEM FOR NARUTO CHARACTER INFORMATION". The main content area features a search bar with "Start Search" and "Search here!" placeholder text, and a "Search" button. To the right of the search bar is a large, vibrant illustration of a group of Naruto characters eating ramen in a restaurant. Below this are four smaller character portraits: Naruto waving, Sasuke, Kakashi, and another character. At the bottom of the page, there are three profile boxes for "Miss Russarin Eaimrittikrai" (ID 6488021), "Miss Supithcha Jongphoewatthanaphon" (ID 6488045), and "Miss Kanita Karunkittikun" (ID 6488049). The footer of the page reads "ITCS414 Information Storage and Retrieval".

After search:

The user can type in the query for search in the search box and the result of the search will be shown after clicking on the ‘search’ button. Furthermore, the system includes a page navigation feature that automatically activates when the search results exceed three rows.

The screenshot shows a web application for searching Naruto characters. At the top, there's a header with the Mahidol University logo, a search bar containing '127.0.0.1:5000/search?keyword=F', and a 'Relaunch to update' button. Below the header is a navigation bar with 'Members' and 'Search' links. The main content area features a search form with a text input containing 'F' and a 'Search' button. To the right of the search form is a vibrant illustration of several Naruto characters at a ramen shop. Below this are four smaller character portraits: Faz, Fugi, Fukasaku, and Daikoku Funeno. Each character has a detailed profile below their portrait, including their name, a short description, and a 'Read more' button. The overall design is clean and modern, with a focus on the anime art style.

**SEARCH SYSTEM
FOR NARUTO CHARACTER INFORMATION**

Welcome to our Character Search System! Our intuitive search allows you to discover characters based on their names, affiliations, backgrounds, abilities, and appearances. Powered by Elasticsearch, our system ensures quick and relevant results. Embark on a Journey: Explore the World of Naruto Characters with Our Powerful Search System!

Start Search

F

Search

Members Search

Search Results

Faz

Faz (ファズ, Fazu) is a young citizen of the Tonika Village.

[Read more](#)

Fugi

Fugi (フギ) was a shinobi from Sunagakure.

[Read more](#)

Fukasaku

Fukasaku (フカサク), often referred to as 'Head' (頭, Kashira) is an elder toad over eight hundred years old that resides on Mount Myōboku. As the heirs of the Great Toad Sage, he and his wife Shima are revered as the 'Two Great Sage Toads' (二大仙蠅, Nidaisengama).

[Read more](#)

Daikoku Funeno

Daikoku Funeno (ふねのダイコク, Funeno Daikoku) is a chūnin of Konohagakure where he serves as a teacher at the Academy.

[Read more](#)

Fire Daimyō



He is the former daimyō of the Land of Fire.

[Read more](#)

Fū Yamanaka



Fū Yamanaka (山中富一, Yamanaka Fū, Viz: Foo) was a shinobi from Konohagakure's Yamanaka clan, as well as a high-ranking shinobi of the disbanded Anbu faction Root.

[Read more](#)

A (First Raikage)



A (エ-, È, Viz: Ei, English TV: Ay) was the First Raikage (初代雷影, Shodai Raikage, literally meaning: First or Founding Lightning Shadow) who founded Kumogakure in the Land of Lightning.

[Read more](#)

A (Fourth Raikage)



A is the Fourth Raikage (四代目雷影, Yondaime Raikage, literally meaning: Fourth Lightning Shadow) of Kumogakure.

[Read more](#)

1 2 » Last



Miss Russarin Eaimrittikrai
6488021



Miss Supithcha Jongphoemwathanaphon
6488045



Miss Kanita Karunkittikun
6488049

ITCS414 Information Storage and Retrieval

- Example step-by-step search sessions that highlight the following functionality:
 - One-word query

One-word query search: Gaara

Search result:

127.0.0.1:5000/search?keyword=Gaara

Search Results



Gaara

Gaara (我愛羅) is a shinobi of Sunagakure and the youngest of the Three Sand Siblings. He was made the jinchūriki of the One-Tailed Shukaku before he was born, causing the villagers to fear him as a monster. With nobody to connect to, Gaara grew up hating the world and looking out only for himself, giving his life meaning by killing anyone he came across. After being defeated by Naruto Uzumaki – a jinchūriki like himself who found strength in his friendships – Gaara began emulating him. He later became Suna's s

[Read more](#)



Jōseki

Jōseki (ジョウセキ) is a Senior from Sunagakure.

[Read more](#)



Rasa

Rasa (羅砂) was the Fourth Kazekage (四代目風影, Yondaime Kazekage, literally meaning: Fourth Wind Shadow) of Sunagakure. Renowned for his ability to use Gold Dust, Rasa's reign was marked by his frequent quelling of rampages by the One-Tailed Shukaku, which he had sealed into his youngest son, Gaara.

[Read more](#)



Temari Nara

Temari Nara (奈良テマリ, Nara Temari) is a former kunoichi of Sunagakure's Kazekage Clan and the eldest of the Three Sand Siblings. After marrying Shikamaru Nara, she becomes a member of the Nara Clan and emigrates to Konohagakure, where she works as a kunoichi for the village.

[Read more](#)

127.0.0.1:5000/search?keyword=Gaara



Gaara

Gaara (我愛羅) is a shinobi of Sunagakure and the youngest of the Three Sand Siblings. He was made the jinchūriki of the One-Tailed Shukaku before he was born, causing the villagers of Suna to fear him as a monster. With nobody to connect to, Gaara grew up hating the world and looking out only for himself, giving his life meaning by killing anyone he came across. After being defeated by Naruto Uzumaki – a jinchūriki like himself who found strength in his friendships – Gaara began emulating him. He later became Suna's s

[Affiliation: Sunagakure, Allied Shinobi Forces](#)

[Background: Because of heavy cuts to Sunagakure's budget by the Wind Daimyō, the Fourth Kazekage wanted to make one of his children the jinchūriki of the tailed beast. Shukaku to be the best candidate for the village. His first two children, Temari and then Kankurō, had not been compatible with Shukaku. Rasa's third child, **Gaara**, was compatible with Shukaku. For that reason, Shukaku was sealed inside of **Gaara** by Chiyo before he was even born, when **Gaara** was still a fetus inside of his mother Karura's womb.](#)

[Read less](#)



Jōseki

Jōseki (ジョウセキ) is a Senior from Sunagakure.

[Affiliation: Sunagakure](#)

[Background: With the village believing **Gaara**, the jinchūriki of the One-Tail Shukaku was a failure, Dōsaku Nara had decided to depend on the Fourth's development of new techniques and the trading of gold to keep their economy from crumbling. After making this announcement, he noted that they needed to deal with **Gaara** as well.](#)

[Ability: As a member of the advisory council, he is most likely one of Sunagakure's wisest shinobi.](#)

[Appearance: Jōseki's face was noticeably lined with deep tear troughs, and a small scar crept to his nose. Attire wise he wore the standard uniform of the Sunagakure Seniors along with a turban. He also has black hair and dark-coloured eyes.](#)

[Read less](#)



Rasa

Rasa (羅砂) was the Fourth Kazekage (四代目風影, Yondaime Kazekage, literally meaning: Fourth Wind Shadow) of Sunagakure. Renowned for his ability to use Gold Dust, Rasa's reign was marked by his frequent quelling of rampages by the One-Tailed Shukaku, which he had sealed into his youngest son, **Gaara**.

[Affiliation: Sunagakure](#)

[Background: because the Land of Wind's daimyō began to cut down on Sunagakure's budget and instead used Konohagakure's less expensive services, Rasa therefore saw his own village in danger of extinction. In order to prevent this, he decided to focus on passing the skills of the ninja in the village. As such, he ordered Chiyo to seal Shukaku within his youngest son, **Gaara**, so that he could become Suna's ultimate weapon. As a result, his wife Karura died from childbirth while **Gaara** was born prematurely, despite Rasa's desperation to save her life. He then taught **Gaara** ninjutsu, but assisted **Gaara**'s caretaker, ostracizing him from his elder siblings Temari and Kankurō.](#)



Temari Nara

Temari Nara (奈良テマリ, Nara Temari) is a former kunoichi of Sunagakure's Kazekage Clan and the eldest of the Three Sand Siblings. After marrying Shikamaru Nara, she becomes a member of the Nara Clan and emigrates to Konohagakure, where she works as a kunoichi for the village.

[Affiliation: Sunagakure](#)

[Background: Temari was born the eldest child of Karura and the Fourth Kazekage: Rasa. While it was Karura who became a Kage, neither she nor her younger brother Kankurō were compatible with the One-Tail, so **Gaara** was chosen. In the anime, given her close relationship to the Fourth Kazekage and **Gaara**, Temari had a hard time making friends as everyone was always intimidated by her lineage. One boy, however, became good friends with her at this time. **Gaara** was born prematurely, despite Rasa's desperation to save her life. She also used to play pranks on her. She used to play with Sen and Yome when they were little girls.](#)

[Ability: Temari wields a giant iron fan \(鐵扇, tessen\) in battle, which she uses in tandem with her Wind Release nature manipulation to](#)

○ Multiple word query

Multiple word query search: Konohagakure Bamboo

Search result: Konohagakure + Bamboo

(Characters that contain the word ‘Konohagakure’.)

Kae Yukiwari

Eagle-Masked Anbu Member

Naori Uchiha

Kakoi

The screenshot shows a search results page with four character profiles. Each profile includes a thumbnail image, the character's name, a brief description, and detailed background information.

Kae Yukiwari: A female exchange student to the Konohagakure Academy and the princess of the Land of Bamboo. She is described as having short grey hair and blue eyes. Her background involves being heir to the throne and spending time with her younger stepbrother. Her appearance is formal, with white clothing and a necklace.

Eagle-Masked Anbu Member: An Anbu from Konohagakure. He has spiky brown hair and wears a mask. His background involves being part of a group that was attacked by Iwagakure shinobi. He is skilled in water release jutsu and can create clones.

Naori Uchiha: A female kunoichi from the Uchiha clan. She has purple hair and a headband. Her background involves being close friends with Hatake Kakashi and being obsessed with power. She is skilled in water release jutsu and can use clones.

Kakoi: A member of the Konoha Barrier Team. He has shoulder-length brown hair and unique markings under his eyes. He wears a high-collared white tunic. His background involves being part of a team that monitors the area around the Third Hokage's house.

(Characters that contain the word ‘Bamboo’.)

Kae Yukiwari

Eagle-Masked Anbu Member

Bamboo

Kakoi

This screenshot shows a search results page for 'Bamboo' within the Konohagakure database. It displays the same four characters as the previous screenshot, but with some differences in their descriptions.

Kae Yukiwari: Described as having average height and being very pretty. She wears a blue and white outfit with a necklace. Her background involves being heir to the throne and attending parties hosted by the queen.

Eagle-Masked Anbu Member: Described as having tall spiky brown hair and wearing a mask. His background involves being part of a group that was attacked by Iwagakure shinobi. He is skilled in water release jutsu and can create clones.

Naori Uchiha: Described as having long wavy purple hair and wearing a headband. Her background involves being close friends with Hatake Kakashi and being obsessed with power. She is skilled in water release jutsu and can use clones.

Kakoi: Described as having shoulder-length brown hair and unique markings under his eyes. He wears a high-collared white tunic. His background involves being part of a team that monitors the area around the Third Hokage's house.

○ Partial match

Partial match search: assigned to + Team + 7

Search result: assigned + to + Team + 7

Partial word: ‘assigned’

Character	Affiliation	Description
Sakura Haruno	Konohagakure	Sakura Uchiha (うちはさくら, Uchiha Sakura, née Haruno (春野)) is a kunoichi of Konohagakure. When assigned to Team 7, Sakura quickly finds herself ill-prepared for the duties of a shinobi. However, after training under the Sanin Tsunade, she overcomes this, and becomes recognised as one of the greatest medical-nin in the world.
Shikaku Nara	Konohagakure	Shikaku Nara (奈良シカク, Nara Shikaku) was the Jōnin Commander of Konohagakure, head of the Nara clan and was a member of an Ino-Shika-Chō trio alongside Inoichi Yamanaka and Chōza Akimichi.
Yamato	Konohagakure	Yamato (ヤマト), also known as 'Tenzō' (テンゾウ, Tenzo), are both code names for this Anbu-turned-jōnin of Konohagakure. As his Wood Release would allow him to be able to keep the Nine-Tails sealed within Naruto Uzumaki in check, he was reassigned from Anbu to the regular forces, joining Team Kakashi as a temporary replacement for their jōnin-sensei, Kakashi Hatake. While Kakashi eventually returns to the team, Yamato stays on to provide assistance as needed.
Yoroi Akadō	Konohagakure	Yoroi Akadō (赤羽ヨロイ, Akadō Yoroi) is a Konohagakure shinobi and a teammate of Kabuto Yakushi and Misumi Tsurugi, who later defected and joined Orochimaru and Otogakure.

Partial word: ‘Team’

Character	Affiliation	Description
Sakura Haruno	Konohagakure	Sakura Uchiha (うちはさくら, Uchiha Sakura, née Haruno (春野)) is the only child of Kizashi and Mebuki Haruno. She had an healthy childhood, raised by her parents without any serious tragedy or complications, unlike her team members. When she entered Konoha's Academy, a few of the girls in her class started picking on her because of her broad forehead. Sakura tried to combat their teasing by hiding her forehead with her bangs, but this caused the girls to bully her even more. Ino Yamanaka, one of her classmates, saw this, and defended Sakura from her bullies and encouraged her to embrace her forehead rather than hide it. Over the following years, Ino's guidance and friendship helped Sakura become
Shikaku Nara	Konohagakure	Shikaku Nara (奈良シカク, Nara Shikaku) was the Jōnin Commander of Konohagakure, head of the Nara clan and was a member of an Ino-Shika-Chō trio alongside Inoichi Yamanaka and Chōza Akimichi.
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Yoroi Akadō	Otogakure	Yoroi Akadō (赤羽ヨロイ, Akadō Yoroi) is a Konohagakure shinobi and a teammate of Kabuto Yakushi and Misumi Tsurugi, who later defected and joined Orochimaru and Otogakure.

Partial word: '7'

127.0.0.1:5000/search?keyword=assigned+to+Team+7

Sakura Haruno	Shikaku Nara	Yamato	Yoroi Akadō
			
<p>Sakura Haruno (うちはさくら, Uchiha Sakura, née Haruno (春野)) is a kunoichi of Konohagakure. When assigned to Team 7, Sakura quickly finds herself ill-prepared for the duties of a shinobi. However, after training under the Sannin Tsunade, she overcomes this, and becomes recognised as one of the greatest medical-nin in the world.</p> <p>Affiliation: Konohagakure</p> <p>Background: Sakura is the only child of Kisame and Matsuki Haruno. She had an healthy childhood, raised by her parents without any serious tragedy or complications, unlike her team-mates. When she entered Konoha's Academy, few of the girls in her class started picking on her because of her broad forehead. Sakura tried to combat their teasing by fighting them, but this caused more bangs, but this caused the girls to bully her even more. Ino Yamanaka, one of her classmates, saw this, and defended Sakura from her bullies and encouraged her to stand up for herself rather than hide it. Over the following years, Ino's guidance and friendship helped Sakura become</p>	<p>Shikaku Nara (奈良シカク, Nara Shikaku) was the Jōnin Commander of Konohagakure, head of the Nara clan and was a member of an Ino-Shika-Chō trio alongside Inoichi Yamanaka and Chōza Akimichi.</p> <p>Affiliation: Konohagakure</p> <p>Background: When he became a genin, Shikaku was partnered with Chōza Akimichi and Inoichi Yamanaka. In the anime, nearing the end of the Third Shinobi War, his team was assigned to deliver a request for a peace treaty between Konoha and Iwagakure. Anticipating the Iwagakure's attack, Shikaku and his team-mates assisted in the village's defence. He wondered if it was Minato who had deflected the Nine-Tails' Tailed Beast Ball.</p> <p>Ability: As a jōnin-level shinobi and head of his clan, Shikaku was</p>	<p>Yamato (ヤマト), also known as 'Tenzō' (テンゾウ, Tenzō), are both code names for this Anbu-turned-jōnin of Konohagakure. As his Wood Release would allow him to be able to keep the Nine-Tails sealed within Naruto Uzumaki in check, he was reassigned from the village's forces, joining Team Kakashi as a temporary replacement for their jōnin-sensei, Kakashi Hatake. While Kakashi eventually returns to the team, Yamato stays on to provide assistance as needed.</p> <p>Affiliation: Konohagakure</p> <p>Background: Yamato graduated from the Academy at the age of six, and at that same age was promoted to the rank of chūin, a shinobi child (in the anime), he was abducted by Orochimaru and became one of sixty children that were his test subjects. He was injected with the First Hokage's DNA in the hopes that they could replicate the First's ability to use Wood Release. Before Orochimaru could finalise the results of his experiments, he was caught by Hiruzen for his other experiments and had to flee the village. Because every child who had</p>	<p>Yoroi Akadō (赤羽ヨロイ, Akadō Yoroi) is a Konohagakure shinobi and a teammate of Kabuto Yakushi, and Misumi Tsurugi, who later defected and joined Orochimaru and Otogakure.</p> <p>Affiliation: Konohagakure and Otogakure</p> <p>Background: Yoroi was previously a shinobi of Konohagakure. For unknown reasons, he defected to Otogakure with his team, Kabuto, Misumi, Tsurugi. He and his team were able to keep their defection a secret, and at some point, Orochimaru had them participate in the Chunin Exams to spy on the other participants.</p> <p>Ability: Yoroi's most notable ability is his capacity to absorb the physical and spiritual energy of an opponent by simply coming into physical contact with them. Yoroi was quite proficient with this technique; he was able to drain Shikaku's chakra away just by slightly grazing his hair. This extra chakra could also be utilised by himself to perform chakra-taxing techniques.</p>

○ Ranking

Ranking search: Naruto Hokage October

Search result: Naruto + Hokage + October

‘Naruto’

Naruto Uzumaki

Menma Namikaze

Obito Uchiha

Sakura Haruno

Background: **Naruto** was born on the night of October 10th to Minato Namikaze (the Fourth Hokage) and Kushina Uzumaki (the second jinchūriki of the Nine-Tails). He was named after his father, who was the protagonist of Jiraiya's first book, which made the Sannin his godfather. The Third Hokage had specifically requested for Minato to preserve Kushina's seal containing the Nine-Tails while she gave birth to **Naruto** as a remote location, as Minato's wife, Ayame, was a midwife. After the sealed man, Tobi, tracked down their location, however, killed the midwives and Anbu, and captured **Naruto**, Minato rushed to quickly rescue him and teleport him to a safe house. With **Naruto** gone, Tobi captured Kushina and took her to the Akatsuki. Minato saved Kushina and left **Naruto** in her care before he died. Minato died in the battle, eventually defeating Tobi and freeing the Nine-Tails from Tobi's control. Returning to Konoha, the only way Minato and **Naruto** realized was to seal it within **Naruto**. Believing that the seal would not need the fox's power to defeat Tobi when he returned. Since the Nine-Tails' chakra was too intense to be sealed into **Naruto**, Minato sacrificed his soul to split the fox's chakra in half, sealing the Yin half within himself and the Yang half within **Naruto**. After killing **Naruto**, they loved him, Minato and Kushina succumbed to their wounds from protecting their son from the Akatsuki and died away.

Ability: Originally, **Naruto** was rather inept, failing to graduate from the Academy three times. Through sheer determination and training, however, his skills improved rapidly. As a child, he stopped genin like Neji Hyuga, Gaius, and Kabuto Yakushi, earning acknowledgement from the Sannin. As he grew up, he became a various tutelage, **Naruto** was able to defeat various members of Akatsuki, ultimately earning the title of the "Miracle of the World" and a Hokage-material hero. **Naruto's** personally defeated various reincarnated Kage and jinchūriki during the Fourth Shinobi World War, with many believing he was the central key to winning the battle. By adulthood, his accolades made him the Seventh Hokage.

Background: **Naruto** is a shinobi of Konohagakure's Uzumaki clan. He became the jinchūriki of the Nine-Tails, the due of his birth—a fate that caused him to be shunned by most of Konoha throughout his childhood. After joining Team Kakashi, **Naruto** worked hard to gain the village's acknowledgement, all the while chasing his dream to become Hokage. In the following years, through many hardships and ordeals, he became a capable ninja, regarded as a hero both by the villagers, and seen as the "Hero of the world", becoming known as the "Hero of the Hidden Leaf" (木ノ葉隠れの英雄, Konohagakure no Eiyū, literally meaning: Hero of the Hidden Tree Leaves). He soon proved to be one of the main factors in ending the Fourth Shinobi World War, leading him to achieve his dream and become the village's Seventh Hokage (火代目火影, Nanadaiime Hokage, literally meaning: Seventh Fire Shadow).

Affiliation: Konohagakure, Mount Hyoboku, Allied Shinobi Forces

Background: **Naruto** was born on the night of October 10th to Minato Namikaze (the Fourth Hokage) and Kushina Uzumaki (the second jinchūriki of the Nine-Tails). He was named after his father, who was the protagonist of Jiraiya's first book, which made the Sannin his godfather. The Third Hokage had specifically requested for Minato to preserve Kushina's seal containing the Nine-Tails while she gave birth to **Naruto** as a remote location, as Minato's wife, Ayame, was a midwife. After the sealed man, Tobi, tracked down their location, however, killed the midwives and Anbu, and captured **Naruto**, Minato rushed to quickly rescue him and teleport him to a safe house. With **Naruto** gone, Tobi captured Kushina and took her to the Akatsuki. Minato saved Kushina and left **Naruto** in her care before he died. Minato died in the battle, eventually defeating Tobi and freeing the Nine-Tails from Tobi's control. Returning to Konoha, the only way Minato and **Naruto** realized was to seal it within **Naruto**. Believing that the seal would not need the fox's power to defeat Tobi when he returned. Since the Nine-Tails' chakra was too intense to be sealed into **Naruto**, Minato sacrificed his soul to split the fox's chakra in half, sealing the Yin half within himself and the Yang half within **Naruto**. After killing **Naruto**, they loved him, Minato and Kushina succumbed to their wounds from protecting their son from the Akatsuki and died away.

Ability: Originally, **Naruto** was rather inept, failing to graduate from the Academy three times. Through sheer determination and training, however, his skills improved rapidly. As a child, he stopped genin like Neji Hyuga, Gaius, and Kabuto Yakushi, earning acknowledgement from the Sannin. As he grew up, he became a various tutelage, **Naruto** was able to defeat various members of Akatsuki, ultimately earning the title of the "Miracle of the World" and a Hokage-material hero. **Naruto's** personally defeated various reincarnated Kage and jinchūriki during the Fourth Shinobi World War, with many believing he was the central key to winning the battle. By adulthood, his accolades made him the Seventh Hokage.

Background: **Menma** is a descendant of the Uzumaki clan in Tenten's Infinite Tsukuyomi dream. Her background is unknown.

Affiliation: Konohagakure

Background: Menma's life was greatly different than **Naruto** Uzumaki's, as Menma didn't lose his parents, and had more opportunities during his childhood. At some point, Kurama was safely transferred from Kushina Uzumaki onto Menma, letting Menma keep his mother while eventually becoming friends with the tailed beast. After graduating from the Academy, Menma became a member of Team Kakashi alongside Sakura Haruno and Sasuke Uchiha. Eventually, Menma became a chūnin.

Ability: Much Like **Naruto** by the Fourth Shinobi World War, Menma is a very skilled shinobi, sharing essentially the same abilities and skillset as **Naruto**. By himself, Menma could fight on par with Hanzo, who single-handedly fended off the entire Akatsuki during the Ame-gakure leader's two summonings. Menma is also well-respected within the village, as he could personally speak with the higher-ups of the village and helped TenTen's situation, and helped her being freed from jail.

Background: **Menma** looks virtually identical to **Naruto**, though his blonde hair is slightly shorter, showing a male style with jaw-length bangs framing either side of his face, similar to his father's. He wears a black and orange suit, consisting of a black and orange suit, consisting of a black and orange suit III, consisting of a black and orange suit outfit, with a long black headband for his forehead. Menma wears white zori sandals reaching his ankles. In addition, Menma wears black fingerless gloves and instead of the hokage symbol on the back of his jacket, he has green circles. Menma wears smaller red circles in one, in the centre and four around the ends connected by two crossed lines, with two more lined-up red circles above and below the green circle.

Affiliation: Konohagakure, Akatsuki, Kirigakure

Background: **Obito** grew up not knowing who his parents were; in the anime, he was left in the care of his grandmother. Feeling alone in the world, he sought out the village's being Kakashi so that the people of the village would acknowledge his existence. He enrolled in the Academy to help him achieve that goal, where he developed a rivalry with Kakashi, whose natural talent world he sought to replace.

Ability: As a genin, **Obito**'s abilities were average at best, struggling to match his classmates from the Academy. Determined to improve himself, he trained for several months at a time to eventually become a chūnin. Madara saw his potential in **Obito** and thus selected him as his disciple. Madara's hopes were proven correct, as **Obito**'s training greatly improved his abilities as a late bloomer, with his skills leading to others. As a member of the Akatsuki, a teenager **Obito** posed a threat to the Five Great Shinobi Countries, having taken control of the Akatsuki and fighting effectively Kirigakure, as well as posing a challenge to the Fourth Hokage and nearly defeating Konoha. The Fifth Hokage, after seeing teenage **Obito**'s powers, believed that he would bring catastrophe to the world if he continued with his path of Nine-Tails world stop. It. Years later even **Naruto** agrees that Fourth Hokage could not do anything against **Obito** as he was still a child, he defeated Root's most skilled ninjas, and simultaneously held his own against Konoha's best shinobi. As the leader of the Ten-Tails Jinchūriki, **Obito**'s power exceeded that of even Hirashima Senju, he was also able to defeat the most powerful Hokage with ease, overwhelm both **Naruto** and Sasuke several times, and had the ability to destroy the entire Allied Shinobi Forces.

Appearance: As a child, **Obito** had black eyes and short, spiky, black hair. He wore a long sleeved blue uniform and a blue tattered cloth with an orange phial and

Background: **Obito** Uchiha (うちはオビト, Uchiha Obito) was a member of Konohagakure's Uchiha clan. He was believed to have died during the Third Shinobi World War, but only surviving legacy being the Sharingan he gave to his teammate, Kakashi Hatake. In truth, **Obito** was saved from death and trained by **Kakashi** on the events of the war. **Obito** disillusioned with reality, and he inherited Madara's plan to create an ideal world. Resurfacing under the names of Tobi (トビ, Tobii) and Madara Uchiha himself, **Obito** subtly took control of the Akatsuki, using them as a means to advance his machinations, eventually going public and starting the Fourth Shinobi World War. However, towards the war's conclusion, **Obito** had a change of heart, as atonement, sacrificed his life to save the same world he sought to replace.

Ability: Konohagakure, Akatsuki, Kirigakure

Background: **Obito** grew up not knowing who his parents were; in the anime, he was left in the care of his grandmother. Feeling alone in the world, he sought out the village's being Kakashi so that the people of the village would acknowledge his existence. He enrolled in the Academy to help him achieve that goal, where he developed a rivalry with Kakashi, whose natural talent world he sought to replace.

Background: **Sakura** (さくら, Uchiha Sakura, née Haruno (春野)) is a kunoichi of Konohagakure and was assigned to Team 7, Sakura quickly found herself ill-prepared for the duties of a shinobi. However, after training under the Sannin Tsunade, she overcomes this, and becomes recognised as one of the greatest medical-nin in the world.

Affiliation: Konohagakure

Background: **Sakura** is the only child of Kizashi and Mebuki Haruno. She had an healthy childhood, raised by her mother, who was a serious tragedy or complications, unlike her team members. When she entered Konoha's Academy, a few of the girls in her class made fun of her forehead. Sakura tried to combat their teasing by hiding her forehead with her bangs, but this caused the girls to bully her even more. Ino Yamanaka, one of her classmates, saw this and defended Sakura from her bullies and encouraged her to embrace her forehead rather than hide it. Over the following years, Ino's guidance and friendship helped Sakura become comfortable with herself and develop into her own person. Though she felt inferior to Ino in her strength, Sakura began to feel that she was living in Ino's shadow when she,

'Hokage'

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Naruto Uzumaki

Naruto Uzumaki (うずまきナルト, Uzumaki Naruto) is a shinobi of Konohagakure's Uzumaki clan. He became the jinchūriki of the Nine-Tails on the day of his birth, a fate that caused him to be shunned by the rest of the village during his childhood. After joining Team Kakashi, Naruto worked hard to gain the village's acceptance, eventually becoming the Hokage. In the following years, through many hardships and ordeals, he became a capable leader of the village, respected by the villagers, and soon after, the rest of the world, becoming known as the Hero of the Hidden Leaf (木ノ隠れの里忍, Konohagakure no Eiga, literally "Hidden Leaf Hermit"). He was the Head of the Hidden Leaf (木ノ隠れの里の木ノ隠れの葉, Konohagakure no Sato no Konohagakure no Hana). He soon proved to be one of the main factors in winning the Fourth Shinobi World War, defeating the Akatsuki, and became the village's Seventh Hokage (代火影, Nanadaine Hokage, literally meaning: Seventh Fire Shadow).

Affiliation: Konohagakure, Mount Myōboku, Allied Shinobi Forces

Background: Naruto was born on the night of October 10 to Minato Namikaze (the Fourth Hokage) and Kushina Uzumaki (the second wife of Minato and mother of Naruto). He was named after Naruto Musashi, the protagonist of Jiraiya's first book, which made the name famous. As the Fourth Hokage made special arrangements for Minato to preserve Kushina's seal contract, he had to leave her alone as she gave birth to Naruto in a remote location, assisted by midwives and Anbu. A skilled man, he was able to save both his wife, however, killed the midwives and Anbu, and captured Naruto. Fearing Minato would misrule



Menna Namikaze

Menna Namikaze (波麗メンマ, Namikaze Menna) is a descendant of the Uzumaki clan in Tenten's Infinite Tsukuyomi dream.

Affiliation: Konohagakure

Background: Menna's life was greatly different than Obito's, as Menna did not lose his parents, and had some friends during his childhood. At some point, Kurama was safely transferred from Kohiru to Menna, and Menna was able to keep his mother while eventually becoming friends with the tailed beast. After Obito died, Menna became the new Hokage and became a member of Team Kakashi alongside Sakura Haruno and Sasuke Uchiha. Eventually, Menna became the Eighth Hokage.

Ability: Biju (九尾人柱), created by the Fourth Shinobi World War, Menna has the same abilities and skillset as Naruto. By himself, he is able to fight on par with Hidan, who single-handedly fought off the entire Sannin, and the Akatsuki leader's two summonings. Menna is also well-respected by the other shinobi, as he could personally speak with the higher-ups of the village about Tenten's situation, and help her get the medical treatment she needs.

Appearance: Menna looks virtually identical to Naruto, though his hair is longer and more shaggy-looking in style with jagged bangs framing either side of his face. He wears a headband and wears the same attire as Naruto's in Part II, consisting of a black and orange slim suit, with a long blue tail extending from his back.



Obito Uchiha

Obito Uchiha (うちはオビト, Uchiha Obito) was a member of Konohagakure's Uchiha clan. He was believed to have died during the Third Shinobi World War, but only surviving legacy being the Sharingan eye that he传承给了 his teammate Hatake. In truth, Obito was saved from death and trained by Madara, but the events of the war took their toll on him, and he became ill and he inherited Madara's plan to create an ideal world. Resurfacing under the names of Tobi (トビ, Tobii) and Madara Uchiha himself, Obito sought to continue the path of his master, using them as a means to advance his machinations, eventually going public and starting the Fourth Shinobi World War. In the end of Part I, conclusion, Obito had a change of heart and, as atonement, sacrificed his life to save the same world he sought to replace.

Affiliation: Konohagakure, Akatsuki, Kirigakure

Background: bito grew up not knowing who his parents were; in the anime, he was left in the care of his grandfather. Feeling alone in the world, Obito dreamed of becoming Hokage so that the people of the village would acknowledge his existence. He attended the Konoha Academy to help him achieve that goal, where he developed a one-sided rivalry with Kakashi. Obito was popular among the students and popularity was he jealous of. He also became a close friend of Rin Nohara, whom he eventually fell in love with. After finally graduating some years later, Obito, Rin, and Kakashi were placed on a team under the leadership of Minato Namikaze.

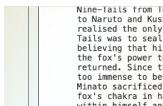


Sakura Haruno

Sakura Uchiha (うちはさくら, Uchiha Sakura, née Haruno (春野)) is a kunoichi of Konohagakure. When assigned to Team 7, Sakura quickly finds herself ill-prepared for the duties of a shinobi, and often gets into trouble. With the Sannin Tsunade, she overcomes this, and becomes recognized as one of the greatest medical-nin in the world.

Affiliation: Konohagakure

Background: Sakura is the only child of Kizashi and Mebuki Haruno. She had an healthy childhood, raised by her parents without any serious trials or tribulations. She lived with only her three members, when entered Konoha's Academy, a few of the girls in her class started picking on her because of her pink hair. Sakura tried to combat their teasing by hiding her forehead with her bangs, but they still continued to tease her even more. Ino Yamanaka, one of her classmates, saw this, and defended Sakura from her bullies. She then decided to hide her forehead rather than hide it. Over the following years, Ino's guidance and support helped her become more comfortable with herself and develop into her own person. Though she felt indebted to Ino for her guidance and support, she was living in Ino's shadow when she, instead, wanted to be Ino's equal. In one point after she entered in Academy, she met Sasuke Uchiha and she developed a crush on him. When told her friends, she was surprised to learn that they all liked Sasuke. Like the girls, Sakura heard a rumour of Sasuke being attracted to girls with long hair.



Nine-Tails

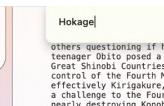
Nine-Tails from Tobi's control. Returning to Naruto and Kushina's location, Minato realized the only way to stop the Nine-Tails was to seal it within Naruto, believing that his son would someday need the fox's power to defeat Tobi. When he returned to the scene, he found that the fox was too immense to be sealed into an infant. Minato sacrificed his soul to split the fox's power in half, sealing the Yang half within himself and the Yang half within Naruto. After telling Naruto how much they loved him, Minato sealed the foxes' tails to their wounds from protecting their son from the Nine-Tails and passed away.

Ability: Originally, Naruto was a rather inept ninja, failing to graduate from the Academy due to his lack of skill, but with determination and training, however, his skills rapidly improved to defeat strong shinobi like Neji Hyuga, Gaara, and Orochimaru. Even though he was born with the power of the Nine-Tails, he was still a very weak shinobi. Akatsuki ultimately earned praise from Konohagakure as a Hokage-material, when Naruto's personally defeated numerous jinchūriki and jinchūriki during the Fourth Shinobi World War, with many believing he was the central key to victory. As he grew older, his prowess made him the Seventh Hokage, regarded as the strongest shinobi in history, and the most powerful jinchūriki jutsu. With the combined might of Sasuke Uchiha, noted as his only rival in power, they are considered the strongest shinobi in the world. Together, they overpowered Momoshiki Ōtsutsuki who absorbed Kinsuki Ōtsutsuki, and his son, the God of Death, Zetsu.

Overall, he could compete against if not defeat world-threatening opponents, such as Obito Uchiha, Madara Uchiha, Kurotsuchi, Toneri Ōtsutsuki, and while fighting at his absolute peak managed to overwhelm Isshiki Ōtsutsuki.

Appearance: According to Jiraiya, Naruto strongly resembled his father, with yellow-toned spiky hair and blue eyes, while inheriting the shape of his mother's eyes and face. His trademark character is the three whisker markings on his cheeks. During the Fourth Shinobi World War, Dan Katō initially mistook him for his son, Obito, due to their stark resemblance. Naruto was rather short for his age during Part I, though he grew to be average height by Part II. Naruto originally wore green goggles on his forehead, though he discards them upon becoming a genin.

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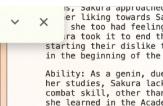


Hokage

After positioning it if he was Madara, As a techgen Obito posed a threat to the Five Great Shinobi Countries, having taken control of the Fourth Mizukage and effectively Kirigakure, as well as posing a threat to the Leaf and Suna, nearly destroying Konoha. The Fourth Hokage after seeing teenager Obito's power and potential, and fearing a coming catastrophe to the world and only Naruto with the power of Nine-Tails would stop it. Realizing that he was right, the Fourth Hokage could not do anything against the power of Obito. As an adult, he defeated Obito and his clones and simultaneously held his own against Konoha's top shinobi and Killer B. As the renegade Akatsuki member, he exceeded the power of Benim Hashirama Senju, he was able to effortlessly fight three powerful Hokage with ease, overwhelm both Naruto and Sasuke, and even Obito and had the capability to destroy the entire Allied Shinobi Forces.

Appearance: As a child, Obito had black eyes and short, spiky black hair. He wore a long-sleeved blue uniform and a blue jacket with an orange collar and gold trimmings. The jacket was fastened to the rest of the uniform with a white belt. The collar and had the Uchiha clan crest at the back. He also wore a white belt, shinobi pants, and a dark blue forehead protector, and a pair of goggles with orange lenses connected to earphones. As an adult, Obito's face was left heavily scarred after the events in Konosakure, resembling wrinkles, while the skin on his left arm and hand and his right arm have been replaced by White Zetsu matter, which have a much lighter colour than his body. His hair has grown during his rehabilitation, and he would repeatedly grow it out and cut it over the years.

Read less



Ino Yamanaka

Ino Yamanaka (山中井のぞみ, Yamanaka Ino) is a kunoichi of Konohagakure. She is the only child of Kizashi and Mebuki Yamanaka. She had an healthy childhood, raised by her parents without any serious trials or tribulations. She lived with only her three members, when entered Konoha's Academy, a few of the girls in her class started picking on her because of her pink hair. Ino Yamanaka, one of her classmates, saw this, and defended Sakura from her bullies. She then decided to hide her forehead rather than hide it. Over the following years, Ino's guidance and support helped her become more comfortable with herself and develop into her own person. Though she felt indebted to Ino for her guidance and support, she was living in Ino's shadow when she, instead, wanted to be Ino's equal. In one point after she entered in Academy, she met Sasuke Uchiha and she developed a crush on him. When told her friends, she was surprised to learn that they all liked Sasuke. Like the girls, Sakura heard a rumour of Sasuke being attracted to girls with long hair.

Read less

20

'October'

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 <p>Naruto Uzumaki</p> <p>Naruto Uzumaki (うずまきナルト, Uzumaki Naruto) is a shinobi of Konohagakure's Uzumaki clan. He became a jinchūriki of the Nine-Tails Fox on the day of his birth – a fate that caused him to be shunned by most of Konoha throughout his childhood. Despite this, through his strength, Kakashi, and the support of his friends, Naruto worked hard to gain the village's acknowledgement all the while chasing his dream to be Hokage. In the following years, through many hardships and ordeals, he became a capable ninja, regarded as a hero both by the villagers, and soon after the rest of the world. He is also known as the Hero of the Hidden Leaf (木ノ葉隠れの英雄, Konohagakure no Eiyū, literally meaning: Hero of the Hidden Tree). Leaving his village, he traveled to obtain factors in winning the Fourth Shinobi World War, leading him to achieve his dream and become the village's Seventh Hokage (七代目火影, Nenadisimo Hokage, literally meaning: Seventh Fire Shadow).</p> <p>Affiliation: Konohagakure, Mount Myobō, Allied Shinobi Forces</p> <p>Background: Naruto was born on the night of October 10th to Minato Namikaze (the Fourth Hokage) and Kushina Uzumaki (the second Jinchūriki of the Nine-Tails). He was born with the curse seal, which was the protagonist of Jiraiya's first book, which made the Sannin his godfather. The Third Hokage, who had been sent to the village for Minato to preserve Kushina's seal containing the Nine-Tails while she gave birth, had to find a safe location, assisted by midwives and Anko. A masked man, Tobi, tracked down their location, however, and the midwives were captured and captured Naruto, forcing Minato to quickly rescue him and teleport him to a safe house. With the gods' help, he calmed down the Nine-Tails and released the Nine-Tails from her, using it to devastate Konoha. Minato saved Kushina and left Naruto in her care.</p>	 <p>Menna Namikaze</p> <p>Menna Namikaze (波風メンマ, Namikaze Menna) is a descendant of the Uzumaki clan in Tenten's Infinite Tsukuyomi dream.</p> <p>Affiliation: Konohagakure</p> <p>Background: Menna's life was greatly different than Naruto Uzumaki's, as Menna didn't lose her parents, and had many friends. She was born in the same point, Kurama was safely transferred from Kushina Uzumaki onto Menna, letting Menna keep her封印 (Fuin, seal). She became friends with the tailed beast. After graduating from the Academy, Menna became a member of Team Kakashi, alongside Sakura Haruno and Sasuke Uchiha. Eventually, Menna became a chūnin.</p> <p>Ability: Much like Naruto by the Fourth Shinobi World War, Menna is a very skilled shinobi, and essentially the same abilities, and she lived as Naruto did herself, Menna could fight on par with Hanzo, who single-handedly fended off the entire Akatsuki in the Akatsuki's Grade 5 two summonings. Menna is also well-respected within the village, as he could pass on his knowledge to the people of the village would acknowledge his existence. He enrolled in the Academy to help his mother, and when he did, he developed a one-sided rivalry with Kakashi, whose natural talent and popularity was greater than his own. He also became a close friend of Rin Nohara, whom he eventually fell in love with. After finalizing his training with Kakashi, Obito, Rin, and Kakashi were placed on a team under the leadership of Minato Namikaze.</p> <p>Appearance: Menna looks virtually identical to Naruto, though his blond hair is longer and she is wearing In style with jaw-length bangs framing either side of his face, similar to his father's. He wears a white headband with a red leaf symbol, a black vest over a white long-sleeved shirt II, consisting of a black and orange slum outfit, with a long black headband on his forehead, and a black vest over a white tank top reaching his ankles. In addition, Menna wears black fingerless gloves and instead of a green headband on his forehead, his jacket, he has a green circle with five smaller red circles in it, one in the</p>	 <p>Obito Uchiha</p> <p>October 2/2</p> <p>Obito Uchiha (うちはオビト, Uchiha Obito) was a member of Konohagakure's Uchiha clan. He was believed to have died during the Fourth Shinobi World War, his only surviving legacy being the Sharingan he gave to his teammate, Kakashi. However, he was still alive, saved by Kakashi and trained by Madara, but the events of the war left Obito disillusioned with reality, and he initiated a plan to create a new ideal world. Reincarnating under the name of Tobi (トビ, Tobi) and Madara Uchiha himself, Obito subtly took control of the Akatsuki, using them as a means to advance his mission, eventually going public and starting the Fourth Shinobi World War. However, towards the war's conclusion, Obito had a change of heart, and, as atonement, saved his wife to save the same world he sought to replace.</p> <p>Affiliation: Konohagakure, Akatsuki, Kidoukure</p> <p>Background: Obito grew up not knowing who his parents were; in the anime, he was left in the care of his grandmother. Feeling alone in the world, Obito dreamed of becoming Hokage, and the people of the village would acknowledge his existence. He enrolled in the Academy to help his mother, and when he did, he developed a one-sided rivalry with Kakashi, whose natural talent and popularity was greater than his own. He also became a close friend of Rin Nohara, whom he eventually fell in love with. After finalizing his training with Kakashi, Obito, Rin, and Kakashi were placed on a team under the leadership of Minato Namikaze.</p> <p>Ability: As a genin, Obito's abilities were not as strong as his teammates, but he tried to match his classmates from the Academy. Determined to improve himself, he trained for several months at a time to eventually</p>	 <p>Sakura Uchiha</p> <p>Sakura Uchiha (うちはサクラ, Uchiha Sakura, nee Haruno (春野)) is a kunoichi of Konohagakure. When assigned to Team 7, Sakura must find herself ill-prepared for the duties of a shinobi. However, after training under the Sanin Tsunade, she overcomes this, and becomes recognized as one of the greatest medical-nin in the world.</p> <p>Affiliation: Konohagakure</p> <p>Background: Sakura is the only child of Kizashi Uchiha and Mikoto Uchiha. She had an eventful childhood, raised by her parents without any serious tragedy or complications, unlike her team members. However, when she entered the academy, a few of the girls in her class started picking on her because of her broad forehead. To avoid being picked on, she began hiding by hiding her forehead with her bangs, but this caused the girls to bully her even more. Her best friend, Ino Yamanaka, saw this, and defended Sakura from her bullies and encouraged her to embrace her natural features. Over the next few years, Ino's guidance and friendship helped Sakura become comfortable with herself and develop into an up-and-comer. Though she felt indebted to Ino for helping her, Sakura began to feel that she was living in Ino's shadow and that she was not as good as Ino. This was equal. At some point after she entered in the Academy, Sakura met Sasuke Uchiha and became his best friend. When Sasuke told her friends, she was surprised to learn how popular Sasuke was with the girls. She was also surprised to learn that Sasuke was being attracted to girls with long hair and she began letting her hair grow to get closer to Sasuke. However, when she learned Ino had a crush on Sasuke, Sakura ended their friendship so that they could compete for Sasuke's love,</p>
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Discussion

- Limitations of the system

The system contains some limitations including the search results may show documents of characters that are unrelated to the query. We attempted to solve this problem by adding the minimum should match parameter in the query function to ensure that a minimum number of terms must match for a document to be considered relevant, but it did not solve the problem entirely since some search queries still contain some irrelevant documents.

- Technical difficulties, challenges, and lessons learned

Throughout the project, some team members encountered several technical challenges. One prominent issue revolved around Elasticsearch and Kibana, both essential tools for our project. We repeatedly experienced difficulties accessing Kibana, with error messages preventing us from connecting to Elasticsearch. Initially, we turned to online resources and documentation in an attempt to troubleshoot and resolve the issue. However, despite our persistent efforts, the problem persisted, leaving us unable to access Elasticsearch through Kibana. To address this issue, we resorted to reinstalling Elasticsearch and Kibana multiple times. We learned that the persistent issue might be related to the IP address or network used during the initial program download. Therefore, we tried to work on the project on the same network we used initially.

Furthermore, implementing this project allows us to understand the usage of Elasticsearch from the index construction to retrieving data through Python and RESTful API. We have learned that field selection is necessary to be considered early in the process of creating a search system because each field in the document holds a different purpose for searching. For instance, some users may only know the hair color of the character, so they may search “pink hair” which may appear in the field of appearance. Thus, it is crucial to understand the needs of the users beforehand in order to execute a competent search system. In addition, we learned that utilizing a text analyzer is beneficial to the search system in enhancing the functionality and performance of search systems and contributing to better search accuracy. While there are numerous analyzers and tokenizers applicable to Elasticsearch, it is crucial to select the appropriate one that can enhance the searchability of the search system. For instance, we selected the Edge n-gram tokenizer because we believe that most users do not know the full name of the characters which can affect the search result. However, the text analyzer must be inserted each

time the data is utilized in a new Elasticsearch instance. Specifically, one of the team members initially put an analyzer in Elasticsearch to develop a search function, but when another team member attempted to execute the same code on a different Elasticsearch account, the program failed to run unless the analyzer was manually inserted into Elasticsearch beforehand.

- Opportunities for future improvements

For future implementations, there are several avenues for improving the search system. First, add more documents of characters since the current version does not contain all the characters in Naruto. Furthermore, enhances the accuracy of the system because at the moment system sometimes returns irrelevant characters in search results. Additionally, the system may introduce user interaction features. For example, integrating user accounts can provide a personalized touch, allowing users to customize their experience, save favorite characters, or track their search history. Lastly, implementing a user feedback mechanism encourages user engagement such as enabling users to report inaccuracies or propose additional characters.

Conclusion

In conclusion, this project represents a search system for Naruto characters that are desirable to both dedicated fans and newcomers. The primary objective is to provide valuable information about the various characters in Naruto, while also addressing the limitations of current resources that hinder the search for specific information details. The project's preliminaries involved data collection from the Naruto Fandom website, where character information was manually organized into well-structured JSON documents, utilizing Elasticsearch, a powerful search and analytics engine, along with Kibana for data virtualization, a highly efficient and user-friendly platform was created. Although the project had significant accomplishments, it is essential to acknowledge the system's limitations, particularly in generating search results that may contain irrelevant characters. The existing relevant systems, including Narutopedia, MyAnimeList, and Anime-Planet are important resources for anime and manga fans, particularly those interested in the Naruto movies. While these platforms provide valuable information and community engagement, the introduction of a dedicated Naruto character search system strives to address specific challenges and provide a unique and user-focused experience for Naruto fans.

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