**Advanced Database System**

**Project 1 Query expansion**

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1. **Team members:**

* Chaozhong Lian (cl3190)
* Jinxi Zhao (jz2540)

1. **File List:**

* run.sh (the shell script to run our program)
* Makefile (the makefile to run our program)
* ./src (the folder containing the source code)
* commons-codec-1.9.jar, org-json.jar (the libraries needed to run Bing API)
* htmlparser.jar (the library to analyze a webpage, extracting the real content in "body" tag, ignoring any words inside tag declaration. Google open source library )
* all other files are generated by Eclipse, and are not useful to run our program, but for maintenance purpose, we include these files

1. **How to run:**

There are **two ways to run our program**, one is using run.sh, one is using "make" command

1. Using Makefile

Type in the following command in shell:

"make ACCOUNT=<value> PRECISION=<value> QUERY=<value>"

* The <value> following ACCOUNT= should be the Bing search account key
* The <value> following PRECISION= should be a real between 0 and 1
* The <value> following QUERY= should be a list of words in double quotes

Examples:

* make ACCOUNT= cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= PRECISION=0.9 QUERY="snow leopard"
* make ACCOUNT= cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= PRECISION=0.9 QUERY="gates"
* make ACCOUNT= cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= PRECISION=0.9 QUERY="columbia"

1. Using run.sh

Type in the following command in the shell:

"./run.sh <account key> <precision> <query>"

* <account key> is the Bing search account key
* <precision> is a real between 0 and 1
* <query> is a list of words in a double quotes

Examples:

* ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "snow leopard"
* ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "gates"
* ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "columbia"

1. **Bing Search Account Key**

The Bing search account key is:

**cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=**

1. **Internal Design of our project**

All the packages and .java files are listed follows:

Please see detail description for every class and package below:

│

├─bing

│ BingSearch.java

│ Result.java

│

├─expansionAlgorithm

│ │ Algorithm.java

│ │

│ ├─rocchio

│ │ │ Rocchio.java

│ │ │

│ │ └─sortAlgorithm

│ │ BM25.java

│ │ MaximumTf.java

│ │ NormalTf\_Idf.java

│ │ SortAlgorithm.java

│ │

│ └─termProximity

│ ProximityEval.java

│

├─indexer

│ IndexCreator.java

│ Posting.java

│ PostingNode.java

│

└─praser

UrlPraser.java

**As a general description, the workflow of our program is:**

**BingSearch** class captures the query user wants to make, and query to Bing API, and then storing each piece of result into a Result class. **BingSearch** class also interacts with the user, confirming which of the results are relevant, if the precision is reached or precision is 0, then we start the following process: **BingSearch** call on **IndexCreator** to create a inverted index file for these 10 webpages, the **IndexCreator** will for each result, call on **UrlPraser** to analyze and extract the real content in the body tag of each webpage and also filtering out stop words, and then building a inverted index file.

Then, **BingSearch** call on **Algorithm** class to expand the query, **Algorithm** class first calls **Rocchio** class, **Rocchio** class will calculates the two terms with the highest score and then return them to the **Algorithm** class. Because **Rocchio** is just a frame, it need an corresponding algorithm to calculate the weight of each term, and so, here we examine three algorithm, the cosine algorithm(**NormalTf\_idf** class), the maximum tf algorithm(**MaximumTf** class), the BM25 algorithm(**BM25** class). These three scoring algorithm can be switched to use one another just by changing a line in the **Rocchio** class(line 53: SortAlgorithm sa = **new** NormalTf\_Idf();), after our experience, we discover that **NormalTf\_idf**(cosine) is the best among all three, so the submitted program is using this algorithm.

After the two terms with the highest score is returned to the **Algorithm** class, it calls the **ProximityEval** class to find the best two place to insert these two terms, **ProximityEval** will changes the query String directly, and return the modified query back to the **BingSearch** class, going to the next round.

**Below is the detail description of the functionality of each package and class:**

* bing package

This package contains the major functionality for interacting with user and getting result from the Bing API.

* BingSearch.java

Class, this class acts as the entry point of our program. Also it encapsulates the operations to retrieve result from Bing API, and storing the result in an ArrayList of Result object.

* Result.java

Class, this class encapsulates the attribute of a retrieved webpage from Bing, its member variables are: ①url, title, description ②whether this webpage is relevant ③its length(count of words, used in BM25 scoring algorithm) ④normalized Sum(i.e., will be used to calculate square root), used in cosine(NormalTf\_Idf scoring method, MaximumTf scoring method) ⑤maxTf, the frequency of the term that appears most frequently in this page (used in MaximumTf scoring method)

* praser package

This package contains classes that will analyze the content of a given url(i.e. a result returned by Bing).

* UrlPraser.java

Class, this class encapsulates the operations to analyze the content inside a url's "body" tag. It will extracts all the words that is real content and then return an ArrayList of String. The String ArrayList is then processed(eliminate duplicates but recording the total repeat count) and returned to the IndexCreator class.

* indexer package

This package contains the classes related to building the inverted index file.

* IndexCreator.java

Class, encapsulates the operation to build the inverted index file. The inverted index file is a HashMap<String, Posting>, String is the word, and the Posting is a class representing the list of documents that has this word.

* Posting.java

Class, represents the list of document that has a specific word.

* PostingNode.java

Class, represents the a document that belongs to a Posting, this will includes a pointer to the Result class(pointing to the document), an ArrayList<Integer> storing the positions which this words shows in this document(the position list will be useful in deciding the order of the words in the ProximityEval class).

* expansionAlgorithm package

This package contains the classes to calculate the two terms to be added and reorder the terms in the best order.

* Algorithm class

This class acts as a linkage between Rocchio and ProximityEval, it calls the Rocchio class first to get the two terms to be added, and then pass those two terms to ProximityEval to calculate the best order, and return to BingSearch an expanded and reordered query String.

* expansionAlgorithm. rocchio package

Rocchio related algorithm, to calculate the two terms to be added.

* Rocchio.java

This class implements the Rocchio algorithm, it is a frame of Rocchio algorithm, because Roccio algorithm does not define how we should calculate the weight of each score, we implements its frame, and examine 3 weight scoring algorithm, cosine(normal tf idf), maximum tf and BM25 to complete the Rocchio algorithm.

* expansionAlgorithm. rocchio.sortAlgorithm package

Implements the scoring method used in the Rocchio algorithm.

* SortAlgorithm.java

Interface, all three other classes in this package will implement this interface, it define how the Rocchio algorithm will call the weight scoring algorithm.

* BM25.java

Implement the BM25 algorithm to be used in Rocchio algorithm.

* MaximumTf.java

Implement the maximum tf algorithm to be used in Roccchio algorithm.

* NormalTf\_Idf.java

Implement the normal cosine algorithm(tf×idf) to e used in Rocchio algorithm.

* expansionAlgorithm. rocchio. termProximity package

This package contains classes that expand the query and then reorder the query in the best order.

* ProximityEval.java

As stated earlier, this class will takes the original query(query from the previous round) and the two terms needed to be inserted. Then it calculates the best position to insert this two terms, and return to the Algorithm class the expanded query string.

1. **Detail of our query expansion algorithm**

Strictly speaking, our expansion algorithm only consists of two parts. The Rocchio algorithm, combined with scoring method, is used to select the two best terms to add into our query, and also the Proximity Evaluation algorithm, which is used to calculate the best place to add in these two best terms.

But only using the above two algorithm to expand query is not enough, the terms that are chosen are very likely to be useless words. We need to do a lot of pre-processing, filtering out stop words and meaningless single letter words. Also, due to our observation, passage in wikipedia.org, because their "Reference" sections, always contains junk words, if we are not careful enough, we will add many words in the "references" section in wikipedia.org, for example, "retrieved" from "retrieved from" appears in basically every references.

In considering all the previously mentioned problems, we discuss our query expansion algorithm in three parts. Firstly we discuss the Rocchio algorithm and the scoring method we choose, and then we discuss the Proximity Evaluation algorithm used to decide the optimal order, and finally we will discuss what we should be careful in the pre-processing stage, how we avoid adding junk words.

* **Rocchio Algorithm and its corresponding scoring algorithm**

After we have build our inverted index file(notice that we omits the pre-processing stage here, we will discuss it shortly), using the set of results which are labeled relevant or not, we can then choose the two terms to add into our query.

Recalls that the rocchio algorithm is as follow:

①

The main characteristic of this algorithm is that in order to compute the query in the next round, we add all the vectors belongs to the documents that are relevant, and minus all the documents vector that are not relevant. Because we don't need to delete words from the original query, only adding words, therefore we can ignore in this equation.

And so the only thing we need to do is, for each word that appears in relevant documents, we add their weights in the relevant documents, and also subtracting out their weights in the non-relevant documents. So we will have the score of each term:

②

After calculate the score for each term, we select the two non-negative score terms which has the highest score, all the terms with negative or 0 score will be ignored. We do this by maintaining a two element array bestTerm[2] to only storing the two best terms. For the value of β and γ, we use the recommended value suggested in chapter 9 in "Modern Information Retrieval: A Brief Overview", so β=0.75, γ=0.15.

But there is an important part missing here, that is, how do we calculate the weight of term t in a document (i.e. how do we calculate )? In here, we consider three weight scoring algorithm, BM25(one of the most successful probabilistic model algorithm), Maximum tf and cosine(normal tf idf). After our comparison, we conclude that using the cosine method(normal tf×idf) yields the best answer. So in our program, we use cosine(normal tf×idf), but we have left the completed BM25 method and Maximum tf method in our program, anyone who want to try the result of these two method could easily do that just by changing line 53 in Rocchio algorithm, in default this line is (line 53: SortAlgorithm sa = **new** NormalTf\_Idf();).

**For the detail description of how we tried to use BM25 and Maximum tf in our heuristic attempts, and the detailed comparison of the result of the three algorithm, please refer to part 7 " Other heuristic attempts And why we don't use them ".**

Back to our discussion, when using the cosine method, the equation we calculate the score of each term, equation ② becomes:

③

One small problem is that when calculating the score of a term, we need the weight of all terms, which we still don't know. Our solution is, we first calculate the tf×idf weight of every term in every file, and storing the sum of the square of weight in Result class. Then we run through every terms in every file again, only this time we already knows the sum of the square of weight, so calculating score(t) is a trivial operation now.

**Below is some test cases using our algorithm and which two words the algorithm adds in the first round, to our surprise, 85% of query can finish just in the first round, the below is some of the test cases that finished in 1 round:**

**For the full transcript, please refer to part 8 " Other interesting test cases using our algorithm ".**

1. Look for Mac OS X Snow Leopard, using[snow leopard]

Augmented by os apple

1. Look for Bill Gates, using [gates]

Augmenting by original microsoft

1. Look for columbia university, using [columbia]

Augmenting by university sipa

1. Look for Brad Pitt, using [brad]

Augmenting by tv pitt

1. Look for Penny in "The Big Bang Theory", using [penny]

Augmenting by sheldon leonard

1. Look for Indiana Jones, using [professor jones]

Augmenting by character indiana

1. Look for "Sleepless in Seattle", using [seattle annie]

Augmenting by jonah sleepless

1. Look for Miami Heat(Basketball team), using [heat]

Augmenting by ticket pm

1. Look for Resident Evil(game), using [resident]

Augmenting by reviews evil

1. Look for Frozen (2013 film), using [frozen]

Augmenting by anna animated

1. Look for Harry Potter, using [harry]

Augmenting by rowling voldemort

1. Look for Eclipse(the software) related information, using [eclipse]

Augmenting by foundation software

* **Reorder List based on Term Proximity**

Below we descript the algorithm originated in the paper [Rasolofo, Yves, and Jacques Savoy. "Term Proximity Scoring for Keyword-Based Retrieve Systems", *Lecture Notes in Computer Science 2633, 1611-3349,2003*][1].

This algorithm takes the assumption that if two words A and B have more than 5 words in between them(i.e. A C D E F G B), then these two words will not have a very strong context meaning, we can then see these two words separately; the closer these two words are, the more meaningfully connected these two words will be. Therefore, for a given word pair ti and tj, we compute a term pair instance (tpi) weight as follows:

is the distance between the two terms, notice the order is important, we will only consider the situation where tj is behind ti, and so when defining d(ti,tj)=pos(tj)−pos(ti), we will only consider when 0<d(ti,tj)≤5. The greatest possible value is 1 when the two terms are next to each other, and the smallest possible value is 0.04 when the two terms have 4 words in between.

One simply way to calculating the term proximity score would then be, for each term pair (ti,tj) with 0<d(ti,tj)≤5, summing up all the tpi(ti,tj). However, this method will bias long passage, because long passage will likely to contains more (ti,tj) pair, therefore, we should take some method to normalize the documents length.

In the paper, the author combining this algorithm with BM25 algorithm, provide us a way to calculate the term proximity score using normalized passage length:

where:

As in BM25 algorithm,

k1 is normally set to 1.2

b is normally set to 0.75

l is the length of this document

avdl is the average length of all relevant documents, we only calculate score for relevant documents.

Therefore, for a given term pair (ti,tj), we can now calculate the score using the algorithm described above.

Now, assume that the two terms to be extended is [e1, e2], and the query is [q1, q2 ... qn], our algorithm will first consider adding e1 into the query, so we first consider term pair (e1, q1) (q1, e1) (e1,q2) (q2,e1) ... (e1,qn) (qn, e1), by calculating the score of each term pair, we then know where we should add our e1 into. If all position to add are 0, then we just append e1 to the last of the query.

The tricky part in how we should add our e2 term, we might just add e1 into the query, and adding e2 into the query. But this approach has a potential problem. Consider an extreme case, where e1 is always 6 words ahead of q1, e2 is always 3 words ahead of q1, then the problem comes, the score of the term pair (e1,q1) will be 0, and then e1 will be appended to the end, then after e2 is added, the query becomes [e2 q1 e1], not optimal. The optimal obviously should be [e1 e2 q1], which can happen if we add e2 first, "connecting" e1 and q1.

The problem above is that we bias e1 and add it first. Therefore, in our algorithm, we first calculate where we should add e1 and the highest score of which e1 can get, then, we don't add e1 into the query, calculate where e2 should be added and the highest score of which e2 can get against the original query. After doing this, we add the expansion term with the highest score, and calculate where the another term should be added against the new query(the expanded one).

This algorithm is based on the observation that the expansion term with the highest score is obviously more related to the original query, and is likely to be a "bridge" to solve the problem we discussed above.

**Here is a list of the expanded query of some of the test cases that finish in 1 round (for full transcript, please refers to part 8):**

1. Look for Mac OS X Snow Leopard, using[snow leopard]

Becomes: snow leopard apple os

1. Look for Bill Gates, using [gates]

Becomes: microsoft gates original

1. Look for columbia university, using [columbia]

Becomes: columbia sipa university (one document do contains many columbia sipa, and so the result becomes in this order)

1. Look for Brad Pitt, using [brad]

Becomes: brad pitt tv

1. Look for Penny in "The Big Bang Theory", using [penny]

Becomes: sheldon leonard penny

1. Look for Indiana Jones, using [professor jones]

Becomes: professor indiana jones character

1. Look for "Sleepless in Seattle", using [seattle annie]

Becomes: seattle sleepless annie jonah

1. Look for Miami Heat(Basketball team), using [heat]

Becomes: heat ticket pm

1. Look for Resident Evil(game), using [resident]

Becomes: resident evil reviews

1. Look for Frozen (2013 film), using [frozen]

Becomes: frozen anna animated

1. Look for Harry Potter, using [harry]

Becomes: voldemort rowling harry

1. Look for Eclipse(the software) related information, using [eclipse]

Becomes: eclipse software foundation

1. **Other interesting test cases using our algorithm**
2. **Look for Brad Pitt, using [brad]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "brad"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = brad

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27brad%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.thefreedictionary.com/brad

Title: brad - definition of brad by the Free Online Dictionary ...

Summary: Summary: Brad Pitt and Angelina Jolie worked the red carpet at the European premiere of Brad 's new animated film, Megamind.

]

Relevant (Y/N)?n

Result 2

[

URL: http://en.wikipedia.org/wiki/Brad\_(band)

Title: Brad (band) - Wikipedia, the free encyclopedia

Summary: Brad is an American rock band that formed in Seattle, Washington in 1992. Brad's sound is influenced by the wide variety of influences brought by its members ...

]

Relevant (Y/N)?n

Result 3

[

URL: http://www.bradcorporation.com/

Title: BRAD | OFFICIAL WEBSITE

Summary: Stone Gossard releases his sophomore solo album, Moonlander today in digital, CD and limited edition vinyl formats as well as limited signed and hand numbered art ...

]

Relevant (Y/N)?n

Result 4

[

URL: http://dictionary.reference.com/browse/brad

Title: Brad | Define Brad at Dictionary.com

Summary: noun 1. a slender wire nail having either a small, deep head or a projection to one side of the head end. See illus. under nail . Relevant Questions Is Brad ...

]

Relevant (Y/N)?n

Result 5

[

URL: http://www.imdb.com/name/nm0000093/

Title: Brad Pitt - IMDb

Summary: Brad Pitt, Actor: Inglourious Basterds. An actor and producer known as much for his versatility as he is for his handsome face, Golden Globe-winning actor Brad Pitt's ...

]

Relevant (Y/N)?y

Result 6

[

URL: https://www.bradpaisley.com/home

Title: Brad Paisley - Official Site

Summary: Brad Paisley’s New Single, “The Mona Lisa,” to Impact Country Radio on December 9

]

Relevant (Y/N)?n

Result 7

[

URL: http://en.wikipedia.org/wiki/Brad\_Pitt

Title: Brad Pitt - Wikipedia, the free encyclopedia

Summary: William Bradley "Brad" Pitt (born December 18, 1963) is an American actor and film producer. Pitt has received five Academy Award nominations and five ...

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.people.com/people/brad\_pitt

Title: Brad Pitt - People.com : Celebrity News, Celebrity Photos ...

Summary: Get everything Brad Pitt straight from America's #1 celebrity brand, PEOPLE. The latest Brad Pitt news, a full collection of photos, fun facts and his complete bio ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.bravotv.com/people/brad-goreski/bio

Title: Brad Goreski - Bio | Bravo TV Official Site

Summary: Brad Goreski is making great strides in the fashion world, which is documented on his series, It’s a Brad, Brad World. Brad’s love affair with fashion began at ...

]

Relevant (Y/N)?n

Result 10

[

URL: http://www.merriam-webster.com/dictionary/brad

Title: Brad - Definition and More from the Free Merriam-Webster ...

Summary: Definition of BRAD. 1: a thin nail of the same thickness throughout but tapering in width and having a slight projection at the top of one side instead of a head

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: brad

Precision: 0.3

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by tv pitt

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = brad pitt tv

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27brad%20pitt%20tv%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.tv.com/people/brad-pitt/

Title: Brad Pitt - TV.com

Summary: Brad Pitt biography, pictures, credits,quotes and more... Brad was born in Shawnee, Oklahoma and raised in Springfield, Missouri...

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.imdb.com/name/nm0000093/filmoseries

Title: Brad Pitt - Filmography by TV series - IMDb

Summary: Brad Pitt on IMDb: Movies, TV, Celebs, and more... IMDb. Movies, TV & Showtimes. MOVIES. In Theaters; Showtimes & Tickets; Latest Trailers; Coming Soon; Release ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://www.tvguide.com/celebrities/brad-pitt/tv-listings/142557

Title: Brad Pitt TV Listings

Summary: Brad Pitt TV Listings on TVGuide.com ... Buy Charlie Rose - An hour with Brad Pitt (December 17, 2007) from Amazon.com

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.imdb.com/name/nm0000093/

Title: Brad Pitt - IMDb

Summary: Brad Pitt, Actor: Inglourious Basterds. An actor and producer known as much for his versatility as he is for his handsome face, Golden Globe-winning actor Brad Pitt's ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://variety.com/2014/scene/news/brad-pitt-angelina-jolie-celebrate-12-years-a-slave-bafta-win-1201109077/

Title: Brad Pitt, Angelina Jolie Party After BAFTA Win for 12 ...

Summary: TV Digital Voices Video Scene ... Tinie Tempah and Brad Pitt attend Entertainment One’s BAFTA after-party hosted by Grey Goose at The ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.amazon.com/s?ie=UTF8&page=1&rh=i%3Advd%2Ck%3ABrad%20Pitt

Title: Amazon.com: Brad Pitt - Movies & TV

Summary: The Assassination of Jesse James ~ Brad Pitt, Casey Affleck, Sam Shepard and Molly Parker (Amazon Instant Video - 2009)

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.tvguide.com/celebrities/brad-pitt/142557

Title: Brad Pitt Movies - Brad Pitt Pictures, Photos, News and Video

Summary: Brad Pitt movies, pictures news and video at TVGuide.com

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.hollywood.com/celebrities/190237/brad-pitt

Title: Brad Pitt - Hollywood.com | Movies, Celebrities, TV News ...

Summary: Despite his leading man looks and movie star charisma, actor Brad Pitt spent most of his career trying to avoid bloated box office roles in favor of riskier, lower ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.locatetv.com/person/brad-pitt/20015

Title: Brad Pitt - Movies and TV | LocateTV - Find TV Shows ...

Summary: Find out where and when you can watch Brad Pitt on TV, online and on DVD. A full filmography with upcoming showings at LocateTV.

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.eonline.com/news/511535/brad-pitt-and-angelina-jolie-reunite-in-london-for-valentine-s-day

Title: Brad Pitt and Angelina Jolie Reunite in London for ...

Summary: Angelina Jolie and Brad Pitt made sure to spend their Valentine's Day together. The busy couple reunited in London after the Oscar winner flew in from Los ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: brad pitt tv

Precision: 1.0

Desired precision reached, done

1. **Look for Penny in "The Big Bang Theory", using [penny]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "penny"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = penny

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27penny%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://en.wikipedia.org/wiki/Penny

Title: Penny - Wikipedia, the free encyclopedia

Summary: A penny is a coin (pl. pennies) or a unit of currency (pl. pence) used in several English-speaking countries. It is often the smallest denomination within ...

]

Relevant (Y/N)?n

Result 2

[

URL: http://www.pennyskateboardsonline.com/

Title: Penny Skateboards USA Penny Skateboards USA Home

Summary: Penny Skateboards: the Original Plastic Skateboard. Each Penny Skateboard is built with the highest quality raw materials and fanatical attention to detail. Penny ...

]

Relevant (Y/N)?n

Result 3

[

URL: http://bigbangtheory.wikia.com/wiki/Penny

Title: Penny - The Big Bang Theory Wiki

Summary: Penny is the show's main female protagonist. She lives in apartment 4B across the hall from Leonard Hofstadter and Sheldon Cooper, who live in apartment 4A.

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.jcpenney.com/

Title: J. C. Penney - Official Site

Summary: FREE Shipping at jcpenney.com. Shop for women's clothing, men's clothing, boy's and girl's clothing, home furniture, bedding, jewelry and shoes

]

Relevant (Y/N)?n

Result 5

[

URL: http://en.wikipedia.org/wiki/Cent\_(United\_States\_coin)

Title: Penny (United States coin) - Wikipedia, the free encyclopedia

Summary: The United States one-cent coin, commonly known as a penny, is a unit of currency equaling one one-hundredth of a United States dollar. The cent's symbol is ¢

]

Relevant (Y/N)?n

Result 6

[

URL: http://www.thefreedictionary.com/penny

Title: penny - definition of penny by the Free Online Dictionary ...

Summary: Place a penny on the middle of one of your tables in Space; and leaning over it, look down upon it.

]

Relevant (Y/N)?n

Result 7

[

URL: http://dictionary.reference.com/browse/penny

Title: Penny | Define Penny at Dictionary.com

Summary: penny (ˈpɛnɪ) —n, pl pennies, pence, pennies: 1. Also called (formerly): new penny, p (in Britain) a bronze coin having a value equal to one hundredth of a pound

]

Relevant (Y/N)?n

Result 8

[

URL: http://www.merriam-webster.com/dictionary/penny

Title: Penny - Definition and More from the Free Merriam-Webster ...

Summary: Full Definition of PENNY 1 a : a monetary unit of the United Kingdom formerly equal to 1 ⁄ 240 pound but now equal to 1 ⁄ 100 pound b : a similar monetary unit of ...

]

Relevant (Y/N)?n

Result 9

[

URL: http://www.penny-arcade.com/

Title: Penny Arcade

Summary: Videogaming-related online strip by Mike Krahulik and Jerry Holkins. Includes news and commentary.

]

Relevant (Y/N)?n

Result 10

[

URL: http://www.enchantedlearning.com/math/money/coins/penny/

Title: The US Penny - Enchanted Learning

Summary: The penny is a US coin worth one cent. One hundred pennies make a dollar. One cent can be written 1¢ or $0.01. The US penny was named after the British penny.

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: penny

Precision: 0.1

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by sheldon leonard

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = sheldon leonard penny

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27sheldon%20leonard%20penny%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://en.wikipedia.org/wiki/List\_of\_characters\_from\_The\_Big\_Bang\_Theory

Title: List of The Big Bang Theory characters - Wikipedia, the ...

Summary: Penny (Her surname has not yet been revealed.) (Kaley Cuoco), is Leonard and Sheldon's neighbor across the hallway. Originally from a small town outside Omaha ...

]

Relevant (Y/N)?y

Result 2

[

URL: http://en.wikipedia.org/wiki/Penny\_(The\_Big\_Bang\_Theory)

Title: Penny (The Big Bang Theory) - Wikipedia, the free encyclopedia

Summary: Penny is a fictional character on the CBS sitcom, The Big Bang Theory, portrayed by actress Kaley Cuoco. Cuoco began being credited as Kaley Cuoco-Sweeting, starting ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://bigbangtheory.wikia.com/wiki/Penny

Title: Penny - The Big Bang Theory Wiki

Summary: Penny is the show's main female protagonist. She lives in apartment 4B across the hall from Leonard Hofstadter and Sheldon Cooper, who live in apartment 4A.

]

Relevant (Y/N)?y

Result 4

[

URL: http://en.wikipedia.org/wiki/Leonard\_Hofstadter

Title: Leonard Hofstadter - Wikipedia, the free encyclopedia

Summary: Leonard Leakey Hofstadter Ph.D., is a fictional character on the CBS television series The Big Bang Theory, portrayed by actor Johnny Galecki. Leonard is an ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://en.wikipedia.org/wiki/The\_Big\_Bang\_Theory

Title: The Big Bang Theory - Wikipedia, the free encyclopedia

Summary: 3.3 Leonard and Penny's relationship; 3.4 Sheldon and Amy's relationship; 3.5 Religion; 3.6 Howard's mother; 3.7 Vanity card; 4 Reception. 4.1 Critical reception;

]

Relevant (Y/N)?y

Result 6

[

URL: http://bigbangtheory.wikia.com/wiki/Leonard\_and\_Penny

Title: Leonard and Penny - The Big Bang Theory Wiki

Summary: Penny, Leonard and Sheldon. Hanging out with Penny. Penny about to kiss "Poppy". Who proposes during SEX? Gently saying no to the marriage proposal.

]

Relevant (Y/N)?y

Result 7

[

URL: http://sheldon-penny.livejournal.com/

Title: Paradox: The Sheldon/Penny Community - LiveJournal

Summary: Sheldon has to take a vacation. Penny quits her job, Leonard struggles to be supportive. Bert the Geologist has a crush on Amy. Bernadette tries to replace a damaged ...

]

Relevant (Y/N)?y

Result 8

[

URL: http://nikneuk.deviantart.com/art/Sheldon-Leonard-and-Penny-Apartment-from-TBBT-322943897

Title: Sheldon, Leonard and Penny Apartment from TBBT by nikneuk ...

Summary: This is a house-plan based in the apartments of Sheldon, Leonard and Penny from the TV show "The Big Bang Theory". It's an original hand drawed plan, in scale ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.ebay.com/sch/i.html?\_nkw=penny+sheldon

Title: penny sheldon | eBay - Electronics, Cars, Fashion ...

Summary: Visit eBay for great deals on a huge selection penny sheldon. Shop eBay!

]

Relevant (Y/N)?y

Result 10

[

URL: http://insidetv.ew.com/2010/01/09/big-bang-scoop-romance-for-penny-and-sheldon/

Title: 'Big Bang' scoop: Romance for Penny and Sheldon? | Inside ...

Summary: Holding out hope for a Sheldon-Penny romance on The Big Bang Theory? It might be time to throw in the towel. Speaking to reporters at press tour this ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: sheldon leonard penny

Precision: 1.0

Desired precision reached, done

1. **Look for Indiana Jones using [professor jones]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "professor jones"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = professor jones

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27professor%20jones%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://en.wikipedia.org/wiki/Steven\_E.\_Jones

Title: Steven E. Jones - Wikipedia, the free encyclopedia

Summary: Steven Earl Jones is an American physicist. For the majority of his career, Jones was known primarily to other scientists for his work on muon-catalyzed fusion.

]

Relevant (Y/N)?n

Result 2

[

URL: http://www.amazon.com/Winning-Lottery-Everyday-Players-Edition/dp/1580420478

Title: Winning Lotto / Lottery For Everyday Players, 3rd Edition ...

Summary: Winning Lotto / Lottery For Everyday Players, 3rd Edition [Professor Jones] on Amazon.com. \*FREE\* shipping on qualifying offers. The world's foremost lotto and ...

]

Relevant (Y/N)?n

Result 3

[

URL: http://en.wikipedia.org/wiki/Indiana\_jones

Title: Indiana Jones - Wikipedia, the free encyclopedia

Summary: Dr. Henry Walton "Indiana" Jones, Jr., often shortened to "Indy", is the main character of the Indiana Jones franchise. George Lucas created the character in homage ...

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.ebay.com/sch/i.html?\_nkw=professor+jones

Title: professor jones | eBay - Electronics, Cars, Fashion ...

Summary: Visit eBay for great deals on a huge selection professor jones. Shop eBay!

]

Relevant (Y/N)?n

Result 5

[

URL: http://www.barnesandnoble.com/c/professor-jones

Title: Professor Jones | Barnes & Noble

Summary: Barnes & Noble - Professor Jones - Save with New Lower Prices on Millions of Books. FREE Shipping on $25 orders! Skip to Main Content; Sign in. My Account. Manage ...

]

Relevant (Y/N)?n

Result 6

[

URL: http://www.linkedin.com/pub/dir/professor/jones

Title: professor jones profiles | LinkedIn

Summary: professor jones and 250M+ professionals are on LinkedIn. Join to contact and view their full profiles now. Join Now

]

Relevant (Y/N)?n

Result 7

[

URL: http://www.linkedin.com/pub/professor-jones/37/4a8/175

Title: Professor Jones | LinkedIn

Summary: View Professor Jones's professional profile on LinkedIn. LinkedIn is the world's largest business network, helping professionals like Professor Jones discover inside ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://www.amazon.com/The-Basics-Winning-Lotto-Lottery/dp/1580420710

Title: The Basics of Winning Lotto/Lottery: Professor Jones ...

Summary: The Basics of Winning Lotto/Lottery [Professor Jones] on Amazon.com. \*FREE\* shipping on qualifying offers. Learn to be a winner in just one quick read! This handy ...

]

Relevant (Y/N)?n

Result 9

[

URL: http://www.wcl.american.edu/faculty/jones/

Title: Jones, Cynthia - Faculty - American University Washington ...

Summary: Professor Jones is an associate law professor at the Washington College of Law. She was hired as a full-time professor in 2004, and received tenure in 2010.

]

Relevant (Y/N)?n

Result 10

[

URL: http://www.ratemyprofessors.com/ShowRatings.jsp?tid=1213327

Title: Don Jones at Arizona State University - RateMyProfessors.com

Summary: Ratings and reviews for Professor Don Jones from Arizona State University Tempe, AZ

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: professor jones

Precision: 0.1

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by character indiana

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = professor indiana jones character

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27professor%20indiana%20jones%20character%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://en.wikipedia.org/wiki/Indiana\_jones

Title: Indiana Jones - Wikipedia, the free encyclopedia

Summary: Dr. Henry Walton "Indiana" Jones, Jr., often shortened to "Indy", is the main character of the Indiana Jones franchise. George Lucas created the character in homage ...

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.imdb.com/character/ch0001064/

Title: Professor Henry Jones, Sr. (Character) - IMDb

Summary: IMDb > Professor Henry Jones, Sr. (Character) Edit Photo Update Data . Quicklinks ... From Indiana Jones and the Last Crusade (1989) Professor Henry Jones: Marcus.

]

Relevant (Y/N)?y

Result 3

[

URL: http://en.wikipedia.org/wiki/List\_of\_Indiana\_Jones\_characters

Title: List of Indiana Jones characters - Wikipedia, the free ...

Summary: Dr. Henry Walton "Indiana" Jones, Jr. (Harrison Ford), the titular character of the franchise, is an archaeologist and college professor who leads a double life as a ...

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.imdb.com/character/ch0087315/

Title: Professor Oxley (Character) - IMDb

Summary: Professor Oxley (Character) from Indiana Jones and the Kingdom of the Crystal Skull (2008) Share this page: ... Professor 'Ox' Oxley: Well done, Henry!

]

Relevant (Y/N)?y

Result 5

[

URL: http://www.cnn.com/2014/02/19/living/biracial-black-identity-answers/index.html

Title: The evolving terms used to describe black Americans - CNN.com

Summary: Professor Martha Jones writes that the language of race ... Actress Michael Michele was born in Indiana to a black ... and simply look at the character and ...

]

Relevant (Y/N)?n

Result 6

[

URL: http://legoindianajones.wikia.com/wiki/Indiana\_Jones\_(Professor)

Title: Indiana Jones (Professor) - The Lego Indiana Jones Wiki

Summary: Indiana Jones (Professor) is what Indiana Jones looks like when he teaches at Barnett College...

]

Relevant (Y/N)?y

Result 7

[

URL: http://disney.wikia.com/wiki/Indiana\_Jones\_(character)

Title: Indiana Jones (character) - Disney Wiki

Summary: Dr. Henry "Indiana" Walton Jones, Jr., Ph.D., is a fictional professor of archaeology, an adventurer and the main protagonist of the Indiana Jones film series.

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.zimbio.com/Raiders+of+the+Lost+Ark/articles/AtWl0mELgPW/Great+Character+Professor+Henry+Jones+Indiana

Title: Great Character: Professor Henry Jones (“Indiana Jones ...

Summary: This month’s theme: Father figures. Today’s guest post by Jason Cuthbert features Professor Henry Jones from the 1989 movie Indiana Jones and the Last Crusade ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://indianajones.wikia.com/wiki/Professor

Title: Professor - Indiana Jones Wiki - Raiders of the Lost Ark ...

Summary: Characters. Indiana Jones; Henry Jones; Marion Ravenwood; Sallah; Mutt Williams; ... See the category Professors for a list of professors in the world of Indiana Jones.

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.partialobserver.com/rss.cfm?articleid=3935

Title: The Partial Observer - Sharing the Same Movie Worlds

Summary: The characters and actors are ... about a mysterious object discovered in the mid-20th century by "Henry Jones, an eccentric professor who liked to call ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: professor indiana jones character

Precision: 0.9

Desired precision reached, done

1. **Look for "Sleepless in Seattle", using [seattle annie]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "seattle annie"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = seattle annie

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27seattle%20annie%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.talkinbroadway.com/regional/seattle/se5.html

Title: Talkin' Broadway Regional News & Reviews - Seattle: Annie

Summary: Annie. It's hard to believe that Annie is over 20 years old, and it is more than a little depressing to realize that I have literally grown up with Annie (and with ...

]

Relevant (Y/N)?n

Result 2

[

URL: http://events.seattlepi.com/seattle-wa/events/annie+musical+in+seattle

Title: Seattle Annie Musical In Seattle, Shows & Things To Do ...

Summary: Find 4 Seattle annie musical in seattle events and show tickets and more on Zvents. Popular annie musical in seattle Events are Morsels for a Mongrel,March is Cabaret ...

]

Relevant (Y/N)?n

Result 3

[

URL: http://events.seattlepi.com/seattle\_wa/events/show/216524385-annie

Title: Annie - Seattle Events & Entertainment - seattlepi.com

Summary: Get details for Annie, including date, start time, driving directions and more. Find other - Other events in Seattle, WA.

]

Relevant (Y/N)?n

Result 4

[

URL: http://www.theatermania.com/seattle-theater/shows/annie\_113078/

Title: Annie Tickets, News and Information | Paramount Theatre ...

Summary: Get Annie tickets, discount tickets, theater information, reviews, cast, pictures, news, video and more! - Seattle, WA

]

Relevant (Y/N)?n

Result 5

[

URL: http://www.ticketloot.com/annie-tickets/seattle-WA-Theatre

Title: Annie Seattle WA Tickets - TicketLoot

Summary: Buy Cheap Annie Seattle Tickets from Ticketloot. Get 5% discount on Seattle Annie Tickets WA instantly with discount coupon code. Get your Tickets

]

Relevant (Y/N)?n

Result 6

[

URL: http://en.wikipedia.org/wiki/Sleepless\_in\_Seattle

Title: Sleepless in Seattle - Wikipedia, the free encyclopedia

Summary: Sleepless in Seattle is a 1993 American romantic comedy film directed and co-written by Nora Ephron. Based on a story by Jeff Arch, it stars Tom Hanks as Sam Baldwin ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://aniseattle.com/

Title: Annie's Nannies, Inc.| Seattle's Original Nanny Agency ...

Summary: Nanny Seattle Child Care Agency Annie's Nannies experienced household placement in Seattle Child Care In-home Childcare Nanny Service Employment Placement Agency ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://www.yelp.com/biz/annies-art-and-frame-seattle

Title: Annie's Art and Frame - Ballard - Seattle, WA | Yelp

Summary: 58 Reviews of Annie's Art and Frame "Annie's is one of the best frame shops I have ever been to. They have absolutely fantastic service, ...

]

Relevant (Y/N)?n

Result 9

[

URL: http://www.seattle.gov/default.aspx

Title: Seattle.gov Home Page - The Official Web Site for the City ...

Summary: Seattle Parks and Recreation invites you to celebrate by visiting one of the many parks named for Seattle's African American leaders and learn about their ...

]

Relevant (Y/N)?n

Result 10

[

URL: http://seattle.eventful.com/events/annie-/E0-001-044772749-1@2012011319

Title: ANNIE in Seattle, WA - Jan 13, 2012 7:00 PM | Eventful

Summary: ANNIE on Jan 13, 2012 in Seattle, WA at Broadway Performance Hall. When Annie first wowed audiences at Connecticut's Goodspeed Opera House more than...

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: seattle annie

Precision: 0.1

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by jonah sleepless

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = seattle sleepless annie jonah

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27seattle%20sleepless%20annie%20jonah%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.imdb.com/title/tt0108160/

Title: Sleepless in Seattle (1993) - IMDb

Summary: Title: Sleepless in Seattle (1993) 6.8 /10. Want to share IMDb's rating on your own site? Use the HTML below. Show HTML View more styles ...

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.imdb.com/title/tt0108160/synopsis

Title: Sleepless in Seattle (1993) - Synopsis

Summary: Sleepless in Seattle on IMDb: Movies, TV, Celebs, and more... IMDb ... However, Annie discovers Jonah's backpack with Howard, his teddy bear, inside.

]

Relevant (Y/N)?y

Result 3

[

URL: http://en.wikipedia.org/wiki/Sleepless\_in\_Seattle

Title: Sleepless in Seattle - Wikipedia, the free encyclopedia

Summary: Sleepless in Seattle is a 1993 American romantic comedy film directed and co-written by Nora Ephron. ... Annie asks Jonah if the teddy bear is his, and he says it is.

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.movie-locations.com/movies/s/Sleepless\_In\_Seattle.html

Title: Film locations for Sleepless In Seattle (1993)

Summary: Film location guide for Nora Ephron's Sleepless In Seattle (1993), with Tom Hanks and Meg Ryan; around Seattle, Baltimore and New York.

]

Relevant (Y/N)?y

Result 5

[

URL: http://romances.com/movie-sleepless-seattle.htm

Title: Sleepless In Seattle - MOVIE ROMANCES / Romances.com

Summary: Sleepless In Seattle - Movie Romances - Romances.com ... Jonah had written a letter back to Annie, pretending to be his father, and had ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.movieguide.org/reviews/sleepless-in-seattle.html

Title: SLEEPLESS IN SEATTLE | Movieguide | The Family Guide to ...

Summary: In the film, SLEEPLESS IN SEATTLE, an eight-year-old Jonah calls a talk-show host on Christmas Eve to discuss his recently widowed father's problems while Annie, in ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.youtube.com/watch?v=WdehPsCJab8

Title: Sam is Sleepless in Seattle - Sleepless in Seattle (1/8 ...

Summary: Sam (Tom Hanks) and Jonah (Ross Malinger) talk to Dr. Fieldstone on the radio about life without a wife and mother while Annie (Meg Ryan) listens. Film ...

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.rottentomatoes.com/quiz/sleepless-in-seattle-860209/

Title: Sleepless in Seattle - Rotten Tomatoes

Summary: Question 9. What did Sam just say to Jonah when he spots Annie at the airport? These are things I'm willing to get to the bottom of; Can you appreciate the difference?

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.rottentomatoes.com/quiz/sleepless-in-seattle-99700/

Title: Sleepless in Seattle - Rotten Tomatoes

Summary: In Sleepless in Seattle, what city was Sam and Jonah from before moving to Seattle? ... In sleepless in seattle,How did Annie and Walter meet? at the health club;

]

Relevant (Y/N)?y

Result 10

[

URL: http://movies.yahoo.com/movie/sleepless-in-seattle/

Title: Sleepless in Seattle | Trailer and Cast - Yahoo Movies

Summary: Get the complete cast, production details, reviews and trailer of Sleepless in Seattle on Yahoo Movies. ... Jonah's lovely dad. And as Annie sees it, ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: seattle sleepless annie jonah

Precision: 1.0

Desired precision reached, done

1. **Look for Miami Heat(Basketball team), using [heat]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "heat"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = heat

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27heat%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.imdb.com/title/tt0113277/

Title: Heat (1995) - IMDb

Summary: Directed by Michael Mann. With Al Pacino, Robert De Niro, Val Kilmer, Jon Voight. A group of professional bank robbers start to feel the heat from police when they ...

]

Relevant (Y/N)?n

Result 2

[

URL: http://www.nba.com/heat/

Title: THE OFFICIAL SITE OF THE MIAMI HEAT

Summary: Official site of the Miami HEAT provides information on HEAT players, coaches, stats, HEAT schedules, HEAT tickets, HEAT Dancers, the Miami HEAT store and more. The ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://throwbackblack.com/

Title: Miami HEAT Throwback Black — Miami HEAT Throwback Jerseys

Summary: heat.com; best websites of the world. Watch player intro #3 Dwyane Wade #22 James Jones #15 Mario Chalmers #40 Udonis Haslem #34 Ray Allen #1 Chris Bosh #20 Greg Oden

]

Relevant (Y/N)?y

Result 4

[

URL: http://en.wikipedia.org/wiki/Heat

Title: Heat - Wikipedia, the free encyclopedia

Summary: The discipline of heat transfer, typically considered an aspect of mechanical engineering and chemical engineering, deals with specific applied methods by ...

]

Relevant (Y/N)?n

Result 5

[

URL: http://en.wikipedia.org/wiki/Heat\_(1995\_film)

Title: Heat (1995 film) - Wikipedia, the free encyclopedia

Summary: Heat is a 1995 American crime film written and directed by Michael Mann. It stars Al Pacino, Robert De Niro, and Val Kilmer. De Niro plays Neil McCauley, a ...

]

Relevant (Y/N)?n

Result 6

[

URL: http://heat.com/

Title: THE OFFICIAL SITE OF THE MIAMI HEAT

Summary: Official site of the Miami HEAT provides information on HEAT players, coaches, stats, HEAT schedules, HEAT tickets, HEAT Dancers, the Miami HEAT store and more. The ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.thefreedictionary.com/heat

Title: heat - definition of heat by the Free Online Dictionary ...

Summary: heat (hēt) n. Physics. 1. a. A form of energy associated with the motion of atoms or molecules and capable of being transmitted through solid and fluid media by ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://msn.foxsports.com/nba/team/miami-heat/71088?q=miami-heat

Title: Miami Heat | NBA Basketball Schedule, Stats, News, Picture ...

Summary: Miami Heat home page, team center for Miami Heat news, videos, NBA team reports, roster depth charts, results, stats, schedule and more.

]

Relevant (Y/N)?y

Result 9

[

URL: http://espn.go.com/nba/team/\_/name/mia/miami-heat

Title: Miami Heat Basketball Clubhouse - ESPN

Summary: Heat's Plan For Wade Down The Stretch. Chris Broussard discusses Miami's plan for how they will manage Dwyane Wade during the second half of the season.

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.merriam-webster.com/dictionary/heat

Title: Heat - Definition and More from the Free Merriam-Webster ...

Summary: Full Definition of HEAT intransitive verb 1 : to become warm or hot 2 : to start to spoil from heat transitive verb 1 : to make warm or hot 2 : excite — heat·able ...

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: heat

Precision: 0.5

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by ticket pm

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = heat ticket pm

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27heat%20ticket%20pm%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.stubhub.com/miami-heat-tickets/

Title: Miami Heat tickets - Heat NBA Basketball tickets on StubHub!

Summary: Miami Heat tickets - Buy and sell Miami Heat tickets and other NBA tickets on StubHub! Where Fans Buy & Sell tickets

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.nba.com/heat/

Title: THE OFFICIAL SITE OF THE MIAMI HEAT

Summary: Official site of the Miami HEAT provides information on HEAT players, coaches, stats, HEAT schedules, HEAT tickets, HEAT Dancers, the Miami HEAT store and more. The ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://www.ticketmaster.com/Miami-Heat-tickets/artist/805966#!

Title: Miami Heat Tickets | Single Game Tickets & Schedule ...

Summary: Tickets for Basketball games: buy Miami Heat Basketball single game tickets at Ticketmaster.com. Find game schedules and team promotions.

]

Relevant (Y/N)?y

Result 4

[

URL: https://m.ticketsnow.com/NBA/ViewTickets/1445172/Chicago%20Bulls%20at%20Miami%20Heat%20at%20American%20Airlines%20Arena%20%20%20FL%20on%20Sun,%20Feb%2023rd,%202014%20330%20PM.html

Title: Miami HEAT Tickets

Summary: Chicago Bulls at Miami Heat Tickets Sun, Feb 23rd, 2014 3:30 PM American Airlines Arena - FL, Miami, FL. Seating Chart . Tickets may still be available on ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://www.ticketsnow.com/miami-heat-tickets/

Title: Miami HEAT Tickets | NBA Tickets | TicketsNow!

Summary: Miami HEAT Basketball Tickets: Always known by their Miami Heat title, the team was born in 1988 alongside the Charlotte Hornets as an expansion franchise.

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.tickets.com/miami-heat-tickets/

Title: Miami Heat Tickets at Tickets.com

Summary: Find affordable tickets for Miami Heat at Tickets.com. Save money on Miami Heat tickets!

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.nba.com/heat/schedule/

Title: HEAT: 2013-14 HEAT SCHEDULE | THE OFFICIAL SITE OF THE ...

Summary: Official site of the Miami HEAT provides information on HEAT players, coaches, stats, HEAT schedules, HEAT tickets, HEAT Dancers, the Miami HEAT store and more. The ...

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.vividseats.com/nba-basketball/miami-heat-tickets.html

Title: Miami Heat Tickets - 2013-14 Miami Heat Schedule | Vivid Seats

Summary: Find Miami Heat tickets and seating information for home and away games at Vivid Seats. You'll find the regular and post-season Miami Heat schedule and a variety of ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.ticketliquidator.com/tix/miami-heat-tickets.aspx

Title: Miami Heat Tickets - Miami Heat Schedule | Ticket Liquidator

Summary: Miami Heat Tickets on Sale Now! See the Biggest Miami Heat Games and the Most Exciting Basketball Action. Buy Miami Heat Basketball Tickets at Ticket Liquidator. Safe ...

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.tickettweet.com/tickets/pnc-arena-formerly-rbc-center/10\_23\_2012\_700\_pm/preseason-charlotte-bobcats-vs-miami-heat-tickets.aspx

Title: Tickets for , at on - Ticket Tweet

Summary: Preseason Charlotte Bobcats Vs Miami Heat Tickets are available now for , at Pnc Arena Formerly Rbc Center on 10/23/2012 7:00:00 pm. Do not miss your chance to see ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: heat ticket pm

Precision: 1.0

Desired precision reached, done

1. **Look for Resident Evil(game), using [resident]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "resident"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = resident

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27resident%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://dictionary.reference.com/browse/resident

Title: Resident | Define Resident at Dictionary.com

Summary: resident (ˈrɛzɪdənt) —n: 1. a person who resides in a place: 2. social welfare Former name: inmate an occupant of a welfare agency home: 3. (esp formerly) a ...

]

Relevant (Y/N)?n

Result 2

[

URL: http://en.wikipedia.org/wiki/Resident

Title: Resident - Wikipedia, the free encyclopedia

Summary: Resident may refer to: Resident, a person who maintains residency (domicile) in a given place; Resident, a person who has tax residence in a country or jurisdiction

]

Relevant (Y/N)?n

Result 3

[

URL: http://www.imdb.com/title/tt1334102/

Title: The Resident (2011) - IMDb

Summary: Directed by Antti Jokinen. With Hilary Swank, Jeffrey Dean Morgan, Lee Pace, Christopher Lee. When a young doctor suspects she may not be alone in her new Brooklyn ...

]

Relevant (Y/N)?n

Result 4

[

URL: http://www.merriam-webster.com/dictionary/resident

Title: Resident - Definition and More from the Free Merriam ...

Summary: Full Definition of RESIDENT 1 a : living in a place for some length of time : residing b : serving in a regular or full-time capacity <the resident engineer for a ...

]

Relevant (Y/N)?n

Result 5

[

URL: http://www.thefreedictionary.com/resident

Title: resident - definition of resident by the Free Online ...

Summary: Everything there is regulated by resident partners; that is to say, partners who reside in the tramontane country, but who move about from place to place, either with ...

]

Relevant (Y/N)?n

Result 6

[

URL: http://thesaurus.com/browse/resident

Title: Resident Synonyms, Resident Antonyms | Thesaurus.com

Summary: Synonyms for resident at Thesaurus.com with free online thesaurus, antonyms, and definitions. Dictionary and Word of the Day.

]

Relevant (Y/N)?n

Result 7

[

URL: http://resident.com/

Title: The Resident

Summary: The Resident Magazine ... By W.A. Muller. Madison Equities is a real estate development company respected for its creativity and commitment to innovation through ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://en.wikipedia.org/wiki/Resident\_Evil

Title: Resident Evil - Wikipedia, the free encyclopedia

Summary: Resident Evil (バイオハザード, Baiohazādo ?, literally "Biohazard") is a media franchise created by Shinji Mikami and owned by the video game ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.residentevil.com/agegate.php

Title: Capcom - Resident Evil Portal

Summary: Read the feed, follow the wall postings, or visit one of the many fan-created Resident Evil communities.

]

Relevant (Y/N)?y

Result 10

[

URL: http://medical-dictionary.thefreedictionary.com/resident

Title: resident - definition of resident in the Medical ...

Summary: resident /res·i·dent/ (rez´ĭ-dent) 1. resident physician. 2. being or pertaining to such a physician. res·i·dent (rĕz′ĭ-dənt) n. A physician during residency.

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: resident

Precision: 0.2

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by reviews evil

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = resident evil reviews

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27resident%20evil%20reviews%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.rottentomatoes.com/m/resident\_evil/

Title: Resident Evil (2002) - Rotten Tomatoes: Movies | TV Shows ...

Summary: Like other video game adapations, Resident Evil is loud, violent, formulaic, and cheesy.

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.rottentomatoes.com/m/resident\_evil\_afterlife/

Title: Resident Evil: Afterlife (2010) - Rotten Tomatoes: Movies ...

Summary: As dim-witted and lifeless as its undead antagonists, Resident Evil: Afterlife is a wholly unnecessary addition to the franchise.

]

Relevant (Y/N)?y

Result 3

[

URL: http://www.imdb.com/title/tt1855325/reviews

Title: Resident Evil: Retribution Reviews & Ratings - IMDb

Summary: I love Resident Evil series. Despite the mediocre reviews it gets in the past, I still go to the cinema on its release and always looking forward for the next sequel.

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.geekyuniverse.com/resident-evil-revelations-review/

Title: Resident Evil: Revelations- review | Geeky Universe

Summary: Good morning my fellow bittuneers I had a small problem with malware recently, and like my grandma always said, “when life gives you a virus, do a review on how bad ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://www.ign.com/articles/2012/10/01/resident-evil-6-review

Title: Resident Evil 6 Review - IGN - Video Games, Wikis, Cheats ...

Summary: In its attempt to create the biggest Resident Evil game of all time, Capcom has managed to produce a game that lacks consistency. Read our full review for ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.gamespot.com/reviews/resident-evil-review/1900-2549086/

Title: Resident Evil Review - GameSpot

Summary: Resident Evil - a super-slick, realistically mapped, and ultra-violent Alone in the Dark - is at the top of the heap in cinematic 3-D adventure games.

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.metacritic.com/movie/resident-evil

Title: Resident Evil Reviews - Metacritic

Summary: Resident Evil movie reviews & Metacritic score: A secret experiment...a deadly virus...a fatal mistake. Based on the wildly popular video game series, Reside...

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.imdb.com/title/tt1220634/reviews

Title: Resident Evil: Afterlife Reviews & Ratings - IMDb

Summary: Review: Am I not getting something? - In a series that deals with viral mutations, it's pretty fitting that the fourth Resident Evil, a film that...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.ign.com/games/resident-evil-5/ps3-734381

Title: Resident Evil 5 - PlayStation 3 - IGN - Video Games, Wikis ...

Summary: IGN is the Resident Evil 5 (PS3) resource with reviews, wikis, videos, trailers, screenshots, cheats, walkthroughs, previews, news and release dates

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.bestbuy.com/site/resident-evil-damnation-ultraviolet-digital-copy-blu-ray-disc/6438046.p?id=2539198&skuId=6438046&st=my-best-buy-offer-118230&cp=1

Title: Resident Evil: Damnation Ultraviolet Digital Copy Blu-ray ...

Summary: Buy Resident Evil: Damnation (Ultraviolet Digital Copy) (Blu-ray Disc) (Eng/Fre/Por/Spa/TH) 2012 online and read movie reviews at Best Buy. Free shipping on thousands ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: resident evil reviews

Precision: 1.0

Desired precision reached, done

1. **Look for Frozen(2013 movie), using [frozen]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "frozen"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = frozen

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27frozen%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://www.imdb.com/title/tt2294629/

Title: Frozen (2013) - IMDb

Summary: Directed by Chris Buck, Jennifer Lee. With Kristen Bell, Idina Menzel, Jonathan Groff, Josh Gad. Fearless optimist Anna teams up with Kristoff in an epic journey ...

]

Relevant (Y/N)?y

Result 2

[

URL: http://en.wikipedia.org/wiki/Frozen\_(2013\_film)

Title: Frozen (2013 film) - Wikipedia, the free encyclopedia

Summary: Frozen is a 2013 American 3D computer-animated musical fantasy-comedy film produced by Walt Disney Animation Studios and released by Walt Disney Pictures ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://movies.disney.com/frozen/

Title: Frozen - Official Site

Summary: Welcome to the official site for Disney Frozen. Watch the trailer, learn about the story, browse the photo gallery and play online games.

]

Relevant (Y/N)?y

Result 4

[

URL: http://movies.yahoo.com/movie/frozen-2013/

Title: Frozen | Trailer and Cast - Yahoo Movies

Summary: 2014 Oscar Predictions: Can '12 Years a Slave' Hold Off 'Gravity' and 'American Hustle'? Bookmark this page and come back often as Yahoo Movies experts Thelma Adams ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://disney.wikia.com/wiki/Frozen

Title: Frozen - DisneyWiki - Disney Wiki

Summary: Frozen is an American 3D computer animated musical fantasy comedy drama film produced by Walt Disney Animation Studios and distributed by Walt Disney Pictures.

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.frozen-film.com/

Title: Frozen - Official Site

Summary: November 6, 2013 Why You Still Have Bags Under Your Eyes. Nothing is a more clear indication of a poor nights sleep than bags under your eyes. The skin directly below ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://dictionary.reference.com/browse/frozen

Title: Frozen | Define Frozen at Dictionary.com

Summary: verb (used without object), froze, frozen, freezing. 1. to become hardened into ice or into a solid body; change from the liquid to the solid state by loss of heat.

]

Relevant (Y/N)?n

Result 8

[

URL: http://www.rottentomatoes.com/m/frozen\_2013/

Title: Frozen (2013) - Rotten Tomatoes: Movies | TV Shows | Movie ...

Summary: Beautifully animated, smartly written, and stocked with singalong songs, Frozen adds another worthy entry to the Disney canon.

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.merriam-webster.com/dictionary/frozen

Title: Frozen - Definition and More from the Free Merriam-Webster ...

Summary: Definition of FROZEN 1 a : treated, affected, or crusted over by freezing b : subject to long and severe cold <the frozen north> 2 a : incapable of being changed ...

]

Relevant (Y/N)?n

Result 10

[

URL: http://www.imdb.com/title/tt1323045/

Title: Frozen (2010) - IMDb

Summary: Directed by Adam Green. With Shawn Ashmore, Emma Bell, Kevin Zegers, Ed Ackerman. Three skiers are stranded on a chairlift and forced to make life-or-death choices ...

]

Relevant (Y/N)?n

=========================

FEEDBACK SUMMARY

Query: frozen

Precision: 0.7

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

WARNING: URL http://movies.yahoo.com/movie/frozen-2013/ does not contain text

Augmenting by anna animated

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = frozen anna animated

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27frozen%20anna%20animated%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://disney.wikia.com/wiki/Frozen

Title: Frozen - DisneyWiki - Disney Wiki

Summary: Frozen is an American 3D computer animated musical fantasy comedy drama film produced by Walt Disney Animation Studios and distributed by Walt Disney Pictures.

]

Relevant (Y/N)?y

Result 2

[

URL: http://en.wikipedia.org/wiki/Frozen\_(2013\_film)

Title: Frozen (2013 film) - Wikipedia, the free encyclopedia

Summary: Frozen is a 2013 American 3D computer-animated musical fantasy - comedy film produced by Walt Disney Animation Studios and released by Walt Disney Pictures. It is the ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://www.usatoday.com/story/life/movies/2013/06/17/frozen-disney/2389171/

Title: 'Frozen' defrosts Kristen Bell's Disney dreams

Summary: Kristen Bell voices the heroine of Disney's next animated film, 'Frozen,' alongside Broadway star Idina Menzel.

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.huffingtonpost.com/2014/02/20/frozen-deleted-scene\_n\_4825260.html

Title: 'Frozen' Deleted Scene Offers Totally New Look At Anna And ...

Summary: The bond between sisters Elsa and Anna in Disney's "Frozen" is a cornerstone of the hit animated flick, but a new deleted scene offers a very different ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://www.imdb.com/title/tt2294629/

Title: Frozen (2013) - IMDb

Summary: Directed by Chris Buck, Jennifer Lee. With Kristen Bell, Josh Gad, Idina Menzel, Jonathan Groff. Fearless optimist Anna teams up with Kristoff in an epic journey ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://en.wikipedia.org/wiki/Anna\_(Disney)

Title: Anna (Disney) - Wikipedia, the free encyclopedia

Summary: Princess Anna of Arendelle is a fictional character who appears in Walt Disney Animation Studios' 53rd animated feature Frozen. She is voiced primarily by actress ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://gifsoup.com/view/4943151/frozen-anna.html

Title: Frozen, Anna Animated GIF | GIFs - GIFSoup.com

Summary: Frozen, Anna animated gif, Create animated GIFs from YouTube videos free and easy.

]

Relevant (Y/N)?y

Result 8

[

URL: https://gifsoup.com/view/4894420/frozen-anna-kristoff.html

Title: Frozen Anna Kristoff Animated GIF | GIFs - GIFSoup.com

Summary: Frozen Anna Kristoff animated gif, Create animated GIFs from YouTube videos free and easy.

]

Relevant (Y/N)?y

Result 9

[

URL: http://disney.wikia.com/wiki/Anna

Title: Anna - DisneyWiki - Disney Wiki

Summary: Princess Anna of Arendelle is the main protagonist in the 2013 Disney animated feature film Frozen. She is the fearless, spunky and innocently-awkward younger sister ...

]

Relevant (Y/N)?y

Result 10

[

URL: http://www.orlandosentinel.com/the-daily-disney/os-frozen-let-it-go-changed-film,0,3311720.story

Title: 'Let It Go' led Disney 'Frozen' creators to rewrite film ...

Summary: Disney's 'Frozen' Kingdom Melena Ryzik explores the Disney animation studios and speaks with the creators of the Oscar-nominated film 'Frozen.'

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: frozen anna animated

Precision: 1.0

Desired precision reached, done

1. **Look for Harry Potter, using [harry]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "harry"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = harry

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27harry%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://twitter.com/Harry\_Styles

Title: Harry Styles (Harry\_Styles) on Twitter

Summary: The latest from Harry Styles (@Harry\_Styles). Hiiiiiiiiii. Cute as a B\*\*\*\*\* every single one of you

]

Relevant (Y/N)?n

Result 2

[

URL: http://www.harryanddavid.com/

Title: Harry and David Gourmet Gift Baskets with Fresh Fruit and ...

Summary: Gourmet gift baskets with fresh fruit, chocolates and more from Harry and David are the perfect gifts for all occasions.Join the original Fruit of the Month Club.

]

Relevant (Y/N)?n

Result 3

[

URL: http://dictionary.reference.com/browse/harry

Title: Harry | Define Harry at Dictionary.com

Summary: male personal name, a familiar form of Henry (q.v.). Weekley takes the overwhelming number of Harris, Harrison surnames as evidence that "Harry," not "Henry," was the ...

]

Relevant (Y/N)?n

Result 4

[

URL: http://www.harrypotterwizardscollection.com/

Title: Harry Potter Wizard's Collection

Summary: Reveal the exciting features of the Harry Potter Wizard's Collection box set at HarryPotter.com. Own it September 7th on Blu-ray™ Combo Pack with UltraViolet ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://en.wikipedia.org/wiki/Harry\_Potter

Title: Harry Potter - Wikipedia, the free encyclopedia

Summary: Harry Potter is a series of seven fantasy novels written by the British author J. K. Rowling. The series, named after the titular character, chronicle the adventures ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://harrypotter.wikia.com/wiki/Harry\_Potter

Title: Harry Potter - Harry Potter Wiki

Summary: Harry James Potter (born 31 July 1980) was a half-blood wizard, the only child and son of James Potter and Lily Potter (née Evans), and one of the most famous ...

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.potterpuppetpals.com/

Title: Potter Puppet Pals - Apparate

Summary: Harry's Welcome; Home Apparate . We have 19 guests and no members online. Joomla template created with Artisteer. ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://www.surfnetkids.com/games/harry\_potter/

Title: Harry Potter Games: Surfing the Net with Kids

Summary: Play Harry Potter games online at Surfnetkids.com, including Quidditch Game, Harry Potter Knight Driving, Harry Potter jigsaw puzzles and Harry Potter crossword puzzles.

]

Relevant (Y/N)?y

Result 9

[

URL: http://en.wikipedia.org/wiki/Harry\_Potter\_(character)

Title: Harry Potter (character) - Wikipedia, the free encyclopedia

Summary: Harry James Potter is the title character of J. K. Rowling's Harry Potter series. The majority of the books' plot covers seven years in the life of the ...

]

Relevant (Y/N)?y

Result 10

[

URL: https://www.universalorlando.com/harrypotter/

Title: The Wizarding World of Harry Potter - Official Site

Summary: See the magic of The Wizarding World of Harry Potter™ Now at Universal Orlando! Experience in person the rides, shops and dining of Harry Potter Today! Official Site.

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: harry

Precision: 0.6

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by rowling voldemort

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = voldemort rowling harry

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27voldemort%20rowling%20harry%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://en.wikipedia.org/wiki/Voldemort

Title: Lord Voldemort - Wikipedia, the free encyclopedia

Summary: Lord Voldemort (born Tom Marvolo Riddle) is a fictional character in J. K. Rowling's Harry Potter series. Voldemort first appeared in Harry Potter and the Philosopher ...

]

Relevant (Y/N)?y

Result 2

[

URL: http://en.wikipedia.org/wiki/Harry\_Potter

Title: Harry Potter - Wikipedia, the free encyclopedia

Summary: Harry Potter is a series of seven fantasy novels written by the British author J. K. Rowling. The series, named after the titular character, chronicle the adventures ...

]

Relevant (Y/N)?y

Result 3

[

URL: http://www.elephantjournal.com/2013/04/j-k-rowling-to-release-new-harry-potter-novel-sara-crolick/

Title: J.K. Rowling to Release New Harry Potter Novel. ~ Sara ...

Summary: In a surprisingly unpublicized interview, Harry Potter creator, J.K. Rowling, confirmed that she is in the early stages of a new installment of the Harry Potter series.

]

Relevant (Y/N)?y

Result 4

[

URL: http://www.mugglenet.com/jkr/interviews/dh-webchat.shtml

Title: J.K. Rowling Interview - MuggleNet | The World's #1 Harry ...

Summary: Harry Potter news, images, and video from the most popular Harry Potter site online. Including Deathly Hallows movie coverage.

]

Relevant (Y/N)?y

Result 5

[

URL: http://www.languageisavirus.com/jk\_rowling/Lord\_Voldemort.php

Title: Lord Voldemort - Language is a Virus

Summary: Lord Voldemort is a fictional character of the the Harry Potter book series written by J.K. Rowling. He first appeared in the bestseller Harry Potter and the ...

]

Relevant (Y/N)?y

Result 6

[

URL: http://characters.wikia.com/wiki/Voldemort

Title: Voldemort - Fictional Characters Wiki

Summary: Lord Voldemort (Template:IPAc-en; born Tom Marvolo Riddle) is the main antagonist of the Harry Potter series written by British author J. K. Rowling.

]

Relevant (Y/N)?y

Result 7

[

URL: https://www.fanfiction.net/s/8693917/1/Voldemort-Meets-JK-Rowling

Title: Voldemort Meets JK Rowling, a harry potter fanfic | FanFiction

Summary: Voldemort Meets J.K. Rowling. Jo frowned and closed her eyes in frustration. She crumbled yet another sheet of paper and tossed it carelessly into the near trash basket.

]

Relevant (Y/N)?y

Result 8

[

URL: http://www.jkrowling.com/en\_GB/

Title: J.K. Rowling

Summary: J.K. Rowling official website. Welcome to J.K. Rowling's new website, the home of information about the author's life and work. We hope that you will enjoy exploring ...

]

Relevant (Y/N)?y

Result 9

[

URL: http://www.freewebs.com/ashanpotter/voldemort.htm

Title: Voldemort - Ashan Potter - Webs - Make a free website, get ...

Summary: Lord Voldemort makes his debut in Harry Potter and the Philosopher's Stone. In this story, Rowling introduces him as the Dark Lord who has murdered Harry Potter's ...

]

Relevant (Y/N)?y

Result 10

[

URL: http://harrypotter.wikia.com/wiki/Talk:Nagini

Title: Talk:Nagini - Harry Potter Wiki

Summary: The part of Voldemort's soul in Harry was destroyed in the ... Some people criticise Rowling for the fact that Harry's wounds from Nagini in Deathly Hallows are ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: voldemort rowling harry

Precision: 1.0

Desired precision reached, done

1. **Look for Eclipse(the software) related information, using [eclipse]**

kevin@ubuntu:~/ADB/BingSearch/Eclipse/bingSearch$ ./run.sh cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc= 0.9 "eclipse"

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = eclipse

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27eclipse%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://eclipse.org/

Title: Eclipse - Official Site

Summary: Today is the Eclipse Foundation's tenth birthday. A lot has changed, our community is awesome and we look forward to the next 10 years!

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.imdb.com/title/tt1325004/

Title: The Twilight Saga: Eclipse (2010) - IMDb

Summary: Includes cast and crew list, filming locations, message board, trivia, soundtrack listing, photo gallery, box office information, links and plot summary.

]

Relevant (Y/N)?n

Result 3

[

URL: http://en.wikipedia.org/wiki/Eclipse

Title: Eclipse - Wikipedia, the free encyclopedia

Summary: An eclipse is an astronomical event that occurs when an astronomical object is temporarily obscured, either by passing into the shadow of another body or by having ...

]

Relevant (Y/N)?n

Result 4

[

URL: http://www.eclipsethemovie.com/

Title: The Twilight Saga: Eclipse - Official Site

Summary: Blending romance and action fantasy, The Twilight Saga: Eclipse is the third of the Twilight Saga blockbuster films based upon the best-selling novels by Stephanie Meyer.

]

Relevant (Y/N)?n

Result 5

[

URL: http://www.eclipsemovie.org/

Title: Eclipse

Summary: Total Eclipse Movie Info Including Eclipse DVD, Eclipse Trailer, Eclipse Soundtrack and Release Date

]

Relevant (Y/N)?n

Result 6

[

URL: http://www.merriam-webster.com/dictionary/eclipse

Title: Eclipse - Definition and More from the Free Merriam ...

Summary: Full Definition of ECLIPSE 1 a : the total or partial obscuring of one celestial body by another b : the passing into the shadow of a celestial body — compare ...

]

Relevant (Y/N)?n

Result 7

[

URL: http://www.thefreedictionary.com/eclipse

Title: eclipse - definition of eclipse by the Free Online ...

Summary: e·clipse (ĭ-klĭps′) n. 1. a. The partial or complete obscuring, relative to a designated observer, of one celestial body by another. b. The period of time during ...

]

Relevant (Y/N)?n

Result 8

[

URL: http://stepheniemeyer.com/eclipse.html

Title: StephenieMeyer.com | Twilight Series | Eclipse

Summary: Click here to read the first chapter of Eclipse. (if you are having problems viewing it, please click here.) This material is copyrighted by Stephenie Meyer.

]

Relevant (Y/N)?n

Result 9

[

URL: http://dictionary.reference.com/browse/eclipse

Title: Eclipse | Define Eclipse at Dictionary.com

Summary: eclipse (ɪˈklɪps) —n: 1. total eclipse partial eclipse See also annular eclipse Compare occultation the total or partial obscuring of one celestial body by another.

]

Relevant (Y/N)?n

Result 10

[

URL: http://en.wikipedia.org/wiki/Eclipse\_(software)

Title: Eclipse (software) - Wikipedia, the free encyclopedia

Summary: In computer programming, Eclipse is an integrated development environment (IDE). It contains a base workspace and an extensible plug-in system for ...

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: eclipse

Precision: 0.2

Still below the desired precision of 0.9

Indexing results ....

Indexing results ....

Augmenting by foundation software

Parameters:

Client key = cnLsEsvYTSd+XBWkE4lO7z02Wgh3W14UTAwgJ/JURdc=

Query = eclipse software foundation

Precision = 0.9

URL: https://api.datamarket.azure.com/Bing/Search/Web?$top=10&$format=json&Query=%27eclipse%20software%20foundation%27

Total no of results : 10

Bing Search Results:

=========================

Result 1

[

URL: http://eclipse.org/

Title: Eclipse - Official Site

Summary: Today is the Eclipse Foundation's tenth birthday. A lot has changed, our community is awesome and we look forward to the next 10 years!

]

Relevant (Y/N)?y

Result 2

[

URL: http://www.eclipse.org/org/

Title: About the Eclipse Foundation

Summary: About the Eclipse Foundation. What is Eclipse and the Eclipse Foundation? Services of the Foundation; IT Infrastructure; Intellectual Property (IP) Management

]

Relevant (Y/N)?y

Result 3

[

URL: http://en.wikipedia.org/wiki/Eclipse\_(software)

Title: Eclipse (software) - Wikipedia, the free encyclopedia

Summary: In computer programming, Eclipse is an integrated development environment (IDE). It contains a base workspace and an extensible plug-in system for customizing the ...

]

Relevant (Y/N)?y

Result 4

[

URL: http://en.wikipedia.org/wiki/Eclipse\_Foundation

Title: Eclipse Foundation - Wikipedia, the free encyclopedia

Summary: The Eclipse Foundation is a not-for-profit, member supported corporation that acts as the steward of Eclipse, an open source community focused on "building an open ...

]

Relevant (Y/N)?y

Result 5

[

URL: http://download.cnet.com/windows/eclipse-foundation/3260-20\_4-6281227.html

Title: Eclipse Foundation - Download.com - CNET

Summary: Find Eclipse Foundation software downloads at CNET Download.com, the most comprehensive source for safe, trusted, and spyware-free downloads on the Web

]

Relevant (Y/N)?y

Result 6

[

URL: http://www.youtube.com/user/EclipseFdn

Title: Eclipse Foundation - YouTube

Summary: Eclipse is a community for individuals and organizations who wish to collaborate on commercially-friendly open source software. Its projects are focused on b...

]

Relevant (Y/N)?y

Result 7

[

URL: http://www.top4download.com/free-eclipse-foundation/

Title: eclipse foundation Software - Free Download eclipse ...

Summary: Top 4 Download periodically updates software information of eclipse foundation full versions from the publishers, but some information may be slightly ...

]

Relevant (Y/N)?y

Result 8

[

URL: http://eclipse-foundation.sharewarejunction.com/

Title: Eclipse Foundation - Free Eclipse Foundation Software Download

Summary: Eclipse foundation, free eclipse foundation software download ... Home; Newest Software ; Featured Software; Most Popular; Link To Us; Terms and Conditions

]

Relevant (Y/N)?y

Result 9

[

URL: http://finance.yahoo.com/news/azavea-submits-geotrellis-software-framework-140000528.html

Title: Azavea Submits GeoTrellis Software Framework to the ...

Summary: Azavea Submits GeoTrellis Software Framework to the Eclipse Foundation By Submitting Its GeoTrellis Framework, Azavea Joins Major Companies Committed to ...

]

Relevant (Y/N)?y

Result 10

[

URL: http://publisher.brothersoft.com/the-eclipse-foundation.html

Title: The Eclipse Foundation software free download, http://www ...

Summary: The Eclipse Foundation publisher page, Download software programs developed by The Eclipse Foundation

]

Relevant (Y/N)?y

=========================

FEEDBACK SUMMARY

Query: eclipse software foundation

Precision: 1.0

Desired precision reached, done

1. **References**
2. Rasolofo, Yves, and Jacques Savoy. "Term Proximity Scoring for Keyword-Based Retrieve Systems", *Lecture Notes in Computer Science 2633, 1611-3349,2003*
3. Lee, Dong-Hyun, "Multi-Stage Rocchio Classification for large-scale Multi-labeled Text data ", *Web.14,Feb,2014,<*[*http://lshtc.iit.demokritos.gr/system/files/lshc3\_lee.pdf*](http://lshtc.iit.demokritos.gr/system/files/lshc3_lee.pdf)*>*
4. "这就是搜索引擎 核心技术详解" Chapter 5 "检索模型与搜索排序", *Publishing House of Electronics Inducstry, ISBN 978-7-121-14865-1*