Evaluation and Customized Support of Dynamic Query form through web search

Article *in* International Journal of Advanced Science and Technology · January 2019

CITATIONS
4

READS
45

4 authors, including:

Dr D Yuvaraj
Cihan University - Duhok
93 PUBLICATIONS **848** CITATIONS
SEE PROFILE

Mohamed Uvaze Ahamed Ayoobkhan
New Uzbekistan University
44 PUBLICATIONS **354** CITATIONS
SEE PROFILE

International Journal of Advanced Science and Technology
Vol. 28, No. 2, (2019), pp. 170-181

Evaluation and Customized Support of Dynamic Query form through web search

G.Sakthi[1], D.Yuvaraj[2],M.Sivaram[3],A. Mohamed Uvaze Ahamed[0]

0Department of Computer Science, Cihan University - Erbil, Kurdistan Region, Iraq

1Department of Computer Science and Engineering,Hindusthan College of Engineering, Coimbatore, India;

Department of computer science,Cihan University - Duhok, Kurdistan Region-Iraq

3Department of Computer Networking, Lebanese French University, Erbil,

mohamed.sha33@gmail.com
sakthighicet@gmail.com
yuva.r.d@gmail.com, yuvaraj.d@duhokcihan.edu.krd
phdsiva@gmail.com,sivaram.murugan@lfu.edu.krd

Abstract

New sorted out web databases keep up enormous and assorted information and these genuine databases incorporate more than hundreds or even a colossal number ofrelations and characteristics. Normal predefined request structures are not prepared to satisfy distinctive uncommonly selected inquiries from customers on those databases. Dynamic Question Structure (DQF) is a novel database request structure interface, which can effectively make question shapes. The focal thought of DQF is to get a customer's tendency and rank request structure parts, profitable anyone to choose. The making of an inquiry structure is an iterative strategy and is guided by the customer. At each accentuation, the system subsequently makes situating courses of action of structure fragments and the customer by then incorporates the favored structure parts into the request structure. The situating framework relies upon the got customer inclination. A customer can correspondingly stack the request structure and submit request to see the inquiry result at each accentuation. Thusly, a request structure could be viably refined till the customer satisfies with the inquiry results. A probabilistic model is made for measure the respectability of an inquiry structure in DQF. Exploratory appraisal and customer study demonstrate the sufficiency and adequacy of the structure are finished up with an experimentation results.

Keywords: *Query Form creation, User Interaction, Database, Query Form, Random query*

1. Introduction

The query structure is a champion among the most extensively used by UIs for addressing databases. Standard request structures are masterminded and predefined by draftsmen or database head in different data the board frameworks. With the quick improvement of web data and reasonable databases, the bleeding edge databases become incredibly tremendous and composite. In like manner sciences, for instance, genomics and ailments, the databases have more than numerous components for substance and natural data resources [11]. A couple of web databases, for instance, Freebase and DBPedia,

ISSN: 2005-4238 IJAST

ordinarily have a colossal number of sorted out web substances. In this way, it is difficult to configuration a ton of static inquiry structures to impact distinctive uniquely named database request on those composite databases. Many existing database the administrators and improvement gadgets, for instance, Straightforward Inquiry, Cold Blend, SAP and Microsoft Access; offer a couple of instruments to allow customers to make balanced request on databases. In any case, the creation of modified request thoroughly depends upon customers' manual control. The substance of DQF is to keep customer advantage during customer collaboration's and to change the request structure iteratively. In each cycle which involves two sorts of customer participation: It starts with a basic inquiry structure which contains not a lot of fundamental qualities of the database. The essential solicitation structure is then overhauled iteratively by strategies for the relationship between the customer and the system until the customer is content with the request results, in this paper the arranging of request structure parts and the dynamic times of request structures are executed [12].

The total capacities that can be utilized to manufacture informational collections in a flat design (denormalized with accumulations), robotizing Organized Inquiry Language (SQL) question composing and expanding SQL capabilities[17]. Assessing flat conglomerations is a troublesome and wonderful issue. The anticipated even collections give a few exceptional highlights and remuneration. To start with, they symbolize a format to produce SQL code from an information mining device. Such SQL code motorizes composing SQL questions, advancing them, and testing them for precision. This SQL code decreases physical work in the information readiness stage in an information mining task. Second, since SQL code is consequently created it is likely to be more effective than SQL code composed by an end client. For example, an individual who does not know SQL well or somebody who isn't notable with the database blueprint (e.g., an information mining specialist). Thusly, informational indexes can be shaped in a littler sum time. Third, the informational index can be made altogether inside the Database the executives Framework (DBMS).

This methodology results in noteworthy increment in execution without requiring any progressions to the physical format of the information. This undertaking normally requires composing extensive SQL articulations or redoing SQL code, on the off chance that it is more than once created by a few devices. There are two fundamental segments in such SQL code: for example joins and conglomerations; the proposed experimentation center on the total procedure.

2. Related Work

3.1similarity Measures For Categorıcal Data: A Comparatıve Evaluatıon

Evaluating closeness or severance between two components is a key development for different data mining instruments and learning disclosure endeavors. The possibility of similarity for steady data is commonly known, anyway for out and out data, the comparability calculation isn't immediate [14]. A couple of data propelled equivalence measures have been thinking in the composition to figure the closeness between two obvious data plots and their relative execution has not been evaluated. The introduction of a combination of similitude measures with regards to a scrupulous information mining task: exception identification. Results on an assurance of educational accumulations express that while no one measure oversees others for a wide scope of issues, a couple of measures are handy to have constantly first class. Evaluating closeness or partition between two data centers is a middle prerequisite for a couple of data mining and learning disclosure assignments that incorporate evacuating count. Models take in bunching (k-implies), separate based exception recognition, characterization and a few other information mining assignments. The key purpose of all out information is that the disparate qualities that an unmitigated characteristic takes intrinsically requested

structure. In this manner, it is preposterous to straightforwardly look at two changed clear cut qualities [10]. The least complex strategy to discover likeness between two absolute credits is to dispatch a closeness of 1 if the qualities are equivalent and a similitude of 0 if the qualities are not rise to. For two multivariate firm information focuses, the comparability between them will be legitimately similar to the quantity of properties in which they equivalent. This straightforward assess is otherwise called the overlie assessment in the writing. There are fourteen disparate all out methodology from various fields and study them all in all in a solitary situation. A large number of these strategies have not been examined outside the field that they were presented in, and not assessed with different occasions. The unmitigated measures in three distinct ways dependent on how they use data in the information. The different similitude measures for all out information on a wide assortment of benchmark information sets [16]. The adequacy of information driven systems for the emergency of persuasive comparability with unequivocal information.

3.2 A Case for Shared Query Framework Management

The information the board frameworks must give ground-breaking inquiry the executive's capacities from question perusing to programmed question suggestions. Essential talk with the necessities of general inquiry the executive's framework. On illustrating early framework engineering and examine the many research difficulties related with structure such a motor. Present day DBMSs give refined highlights to help clients in arranging, putting away, overseeing, and recovering information in a database [1], yet just deficient capacities for affiliation the inquiries that clients worry on the information. These abilities are restricted to inquiry by-model graphical apparatuses for creating questions and inquiry logging went for physical tuning. Customarily, increasingly confounded question the executives were not fundamental since applications would just issue canned inquiries over the information (e.g., bookkeeping or stock administration applications). These questions were grown once and utilized over and over. The client propose to manufacture a Community oriented Inquiry The board Framework (CQMS) directed at these new, huge scale, shared-information environments[8]. A CQMS ought to consent to play out the client's basic assignments, for example, peruse the log of all questions they presented the archive and their inquiries by clarifying them. Thusly, the clients will be skilled to hurriedly discover, alter and re-execute point of reference questions. Indeed, even upgraded framework ought to keep up advanced pursuit capacities enabling clients to perceive inquiries that work on unambiguous info information, have wanted properties (for example little outcome set, quick execution time), or produce explicit results[15]. Structure of information such a CQMS raises various significant innovative difficulties. To start with, dealing with a gathering of questions is increasingly like dealing with a creating set of source code pieces instead of overseeing customary information. Inquiries have expanded semantics and complex associations with one another.

3.3 The Design And Erection Of Query Forms

A standout amongst methods to request a web database is through a structure, somewhere a customer can load appropriate information to find desirable results by exhibiting the structure. Arranging extraordinary static structures is a non-unimportant manual endeavor, and the organizer needs a sound perception of both the data affiliation and the scrutinizing needs [5]. Also, structure design has two clashing goals: structures should be undemanding to grasp, and meanwhile should make open the broadest possible addressing ability to the customer. In his examination the presents of structure for making outlines in a customized and principled way, given the database plot and a model inquiry outstanding burden [2]. The customer plan a tunable gathering count for structure up

structure reliant on different "near" questions, which consolidates an instrument for extending structure to help other "equivalent" request the system may discover later on.

3.4 An Effective Data Clusterıng Method For VLDB

Discovering practical examples in outsized datasets has pulled in significant intrigue as of late, and a standout amongst the most widely considered issues around the acknowledgment of bunches and thickly occupied locales, in a multi-dimensional dataset [3]. Past work does not sufficiently address the issue of huge datasets and reduce of 1/0 costs. The creator introduces an information grouping technique named called BIRCH (Adjusted Iterative Lessening and Bunching utilizing Chains of importance), and show that it is particularly proper for exceptionally huge databases. BIRCH gradually and enthusiastically bunches approaching multi-dimensional metric information focuses to attempt to create the best quality grouping with the possible assets [6]. BIRCH can normally locate a top notch grouping with a solitary output of the information, and recoup the quality auxiliary with a couple of strengthening filters. BIRCH is likewise the main grouping calculation proposed in the database territory to deal with "clamor)' successfully. The client assesses BIRCH'S time/space fitness, information request affectability, and bunching quality through various analyses. An exhibition relationship of BIRCH vs. CLARANS, a grouping technique planned naturally for huge datasets, and S11OW that BIRCH is continually unrivaled. In this paper, on analytical information bunching, which is a specific sort of information mining issue, is introduced.

3.5 Construction of Dynamic Faceted Search Systems Over web databases:DYNACET

Removing records and up and coming from gigantic databases is a tedious movement and has regular significant research thought as of late. In this demo, DynaCet - a space free framework is utilized that gives successful least exertion based powerful faceted inquiry arrangements over big business databases [7]. At each progression, the creator proposes characteristic relying upon the client response at past advance. Aspects are chosen dependent on their capacity to quickly bore down to the most encouraging tuples, just as on the capacity of the client to give wanted qualities to them. The advantages gave incorporate quicker access to data put away in databases while contemplating the change in client information and preferences [9]. Encouraging significant quest for information records inside tremendous information stockrooms is one of the principle challenges in present day days. Be that as it may, in most genuine applications the client just has fractional data about the tuple and subsequently it is important to empower a powerful inquiry technique. An exceptionally straightforward faceted pursuit interface is one where the client is incited a property (e.g., On-screen character), to which the client reacts with an ideal worth, after which the following suitable ascribe is proposed to which the client reacts with an ideal worth (e.g., "Activity, etc. Along these lines the main test is to judiciously choose the aspects to be prescribed, so the client comes to the ideal tuple(s) with least exertion. Top-k calculations to grow early end procedures that abstain from filtering the total database for deciding the following most encouraging feature

Table 1. Various Inquiry Streams

Query Streams	Feature	Problems
Query-by example	Afford a basic edge for the client to penetrate questions.	1)Relational culmination 2)Ordering issue
Mechanized Positioning of Database Query	To fabricate a nonexclusive computerized positioning foundation for SQL databases.	1)Ranking capacity may neglect to achieve
Moment Reaction Interfaces	Interface created to help the client to type the database examination	1) The clients data need is express 2) Endeavor to apply productive file structures for essential catchphrase questioning
Structures based Database & Inquiry Interface	Automatic ways to compact with creation of database question shapes without client participation	1) Not suitable when the user does not have hard catchphrases to illustrate the queries.
Structure Customization	A construction which permits end-user to tweak the present queriesassociation during run time	1)Database blueprint is huge so it is hard to make wanted question shapes

In all the above writing audit it is noticed that (i)the web database construction is extremely large,(ii) it is hard for the user to discover proper web database elements credits and to make wanted query forms.(iii)they user contain the professional designers to design their databases, not for end-users.(iv)It obviouslyconstruct a great deal of question and shapeforward of time so it baffle the user.(v)It stipulate new terms recognized with the question or modify the terms as specified by the client in the web directory. (vi)Projection parts manages the defer of the question organization and which can't be ignored.(vii)A database inquiry is an preparedin terms of social question.(viii)Dealing with information passage shapes.

3. Dynamic Generation of Query Form system

DQF, anquery edge which is able to do intensely making request shapes for customers. Not exactly equivalent to ordinary record recuperation, customers in database recuperation are much of the time anxious to play out various rounds of exercises (i.e., refining request conditions) before perceiving the last hopefuls [4]. The concentrate of DQF is to confine customer interests during customer affiliations and to adjust the request structure iteratively. The situating of request structure instrument and the dynamic age of inquiry shapes. In this paper a customized procedures technique is to deliver the database question outlines without customer intrigue. Sought after by a data driven procedure is introduced. It first finds a great deal of data qualities, which are more likely than not addressed reliant on the database arrangement and data occasions [13]. By then, the inquiry structures are made reliant on the favored characteristics. It applies gathering estimation on mentioned request to discover the administrator demand. One issue of the as of late referenced frameworks is that, if the database model is immense and composite, client questions could be different. They make heaps of inquiry outlines early; there are still customer request that can't be satisfied by any of request shapes. Another issue is that, when the client makes interminable solicitation diagrams, clients locate a fitting and required request structure would be the challenge. An explanation that join watchword search with request structure age is foreseen. It accurately delivers a social occasion of request outlines in proceed. The customer inputs a couple of catchphrases to find relevant request outlines from a huge number of recouped question shapes. It works fit in the databases which have rich printed information in data tuples and outlines.

The dynamic solicitation structure framework which makes the request structures as exhibited by the client's craving at run time. The structure supplies a reaction for the solicitation interface in enormous and arranged databases. The F-measure is to evaluate the constancy of a request structure; The F-measure is a standard estimation to figure the solicitation results. This estimation is moreover proper for inquiry outlines since request structures are resolved to empower customers to address of the databases. The decency of an inquiry structure is managed by the request results made from the inquiry structure. In perspective on the situating and recommend the potential inquiry structure fragments with the objective that customers can refine the request structure viably. In context on the proposed estimation to make skilled figuring to assess the genuineness of the projection and affirmation structure parts. Here capability is huge because DQF is an online system where customers normally anticipate quick reaction. Inquiry structures empower customers to fill parameters to make different inquiries. Offhand inquiries joints aren't managed by our vivacious request structure since join isn't a section of the request structure and is indistinct for customers. Regarding "Aggregate" and "Solicitation by" in SQL, there are inadequate with regards to options for customers. To pick whether a request structure is needed or not, a customer does not have space plan insightful to go over every datum occasion in the inquiry results. In addition, different database addresses yield a tremendous proportion of data cases. In order to evade this "Many-Answer" issue, simply yield a stuffed result table to exhibit a strange state point of view on the inquiry results first. Every model in the insusceptible table addresses a lot of positive data events. By then, the customer can explore hypnotized bundles to see the exacting data models. Request structures are considered to reestablish the customer's favored result. here are two sets up measures to review the obviousness of the solicitation results: accuracy and review. Solicitation structures can pass on various requestby various information sources, and distinctive solicitation can yield grouped solicitation results and accomplish various precisions and reviews, so they use predicted that precision and evident study should assess the common presentation of the solicitation structure.

- Speak to a layout to produce SQL code from an information mining device
- Mechanizing testing them for accuracy.
- More effective than SQL code composed by an end client.
- The informational index can be made completely inside the DBMS.

4. Experimental Result

Game plan is a multi-step method that focuses on information constitution programming, procedural subtleties, (calculations and so forth.) interface among modules. The structure procedure additionally changes over the necessities into the game plan of programming that can be gotten to for quality before coding start.

Info configuration is the strategy for changing over client started contributions to a PC based arrangement. Information configuration is a standout amongst the most exorbitant periods of the task of mechanized framework and is every now and again the principle issue of a framework. Information configuration is the most noteworthy piece of the general framework plan, which requires incredibly cautious thought. Frequently the accumulation of info information is most costly piece of the framework.

Question Creation:

Information: Q = {Q1, Q2, … .} is the arrangement of past questions implements on Fi

Result: Qone is the question of One-query

Calculation 1: Qon creation

Information: α is the division of occasions wanted by client, DQone is the question aftereffect of Qone, Similar to the determination property.

Result: s*is the finest question state of As.

Start

// sort by As into an ordered set Dsorted

Dsorted ← Sort (DQone, As)

s ← fscore* ← 0

n ← 0, d ← α β 2

for i← 1 to |Dsorted| do

d ← Dsorted[i]

s ← " As ≤ dAs" // compute fscore of " As ≤ dAs"

n ← n + Pu (dAFi) P (dAFi) P (σ Fi |d) P (s|d)

d ← d + P (dAFi) P (σ Fi |d) P (s|d)

fscore ← (1 + β 2) · n/d

if fscore≥ fscore then

s* ← s

fscore* ← fscore

foreach form-group g ∈ T do

Label g relative to its parent group (use absolute path if

g is the root);

foreach form-element e ∈ g do

Label e relative to g;

end

end.

The user interest is based on the user's click-through on query results displayed by the query form by the method precision and recall, Fscore can be derived as follows

$$\text{FScoreE(F)}=(1+\beta 2)\ \text{i.e}\ \frac{\text{Precsiion}_{E}(F).\text{Recall}_{E}(F)}{\beta^{2}.\text{Pression}_{E}(F).\text{Recall}_{E}(F)}$$

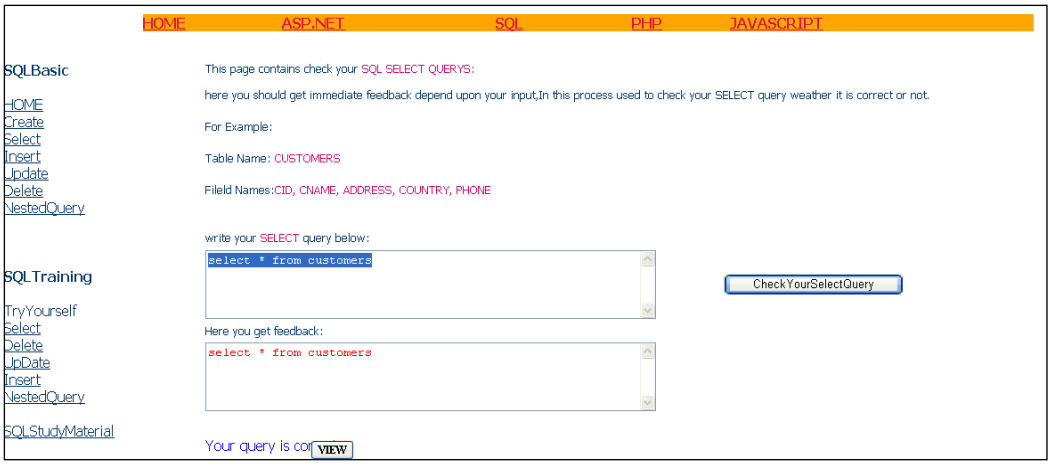

Fig. 1.Selecting database and table name

Table 2.Interactions among Clients AndDqf

1	**Query Structure Enrichment**	1) The customer adjusts the present request structure and exhibits an inquiry. 2) DQF executes the request and exhibits the results. 3) The customer gives the contribution about the inquiry results.
2	**Query Structure improvement**	1) DQF recommends a situated once-over of inquiry structure parts to the customer. 2) The customer picks the perfect structure parts into the present inquiry structure.

5.1 Pattern-Based Correctıon

The pattern is to develop a reachability file for identifying legitimacy of the inquiry. A n×n lattice is built, where entry(i,j) is valid if component name 'I' happens at littlest measure of a nth point descendent of component name 'j' in any information thing in the database, where 'n' is an upper bound farthest point set during database set up. For instance, a quality "representative" could contain traits "name" and "nation" in its information, while "designation"(an worker property) and "buildingtype"(an place of business' characteristic) won't have any basic first or second dimension predecessors in a staff database structure compares to a SQL inquiry design. An quuery structure ‘F’ is described as a tuple (BF, TF, σF, (TF)), which addresses database request configuration as seeks after: F = (SELECT B1, B2,… … .., AK FROM (TF) WHERE σF),Where, BF = {B1, B2,… … .,Bk} are k characteristics for projection, k > 0. TF = {T1, T2,… … ..,Tn} is the plan of n relations (or substances) stressed in this inquiry, n > 0. Each credit in BF has a spot with one association in TF. σF is a mix of explanations for judgments on relations in TF. (TF) is a join ability to make a mix of verbalizations for joining relations of TF. In the UI of a request structure F, BF is the game plan of fragments of the result table. σF is the course of action of data fragments for customers to fill. Question structures empower customers to fill parameters to deliver different request. For a request structure F, (TF) is normally created by the outside keys among relations in TF. Meanwhile, TF is constrained by 'BF' and 'F'. TF is the affiliation set of relations which contains at any rate one property of 'BF' or 'σF'. Thusly, the arrangement of inquiry

structure 'F' is essentially managed by 'BF' and 'σF'. As we referenced, just BF and σF are recognizable to the customer in the UI.

Construction of Queries for preferred queries

1. Select properties from table name
2. String s = "select" 3. String [ ] segment
4. For (i to segment. length; i++)
5. Segment [i] = section
6. String segment = join (section, ")
7. String table name
8. String question = s + section + table name

The proposal highlight gives intuitive direction over longer learning and preparing periods. Its point is summative and collective student evaluation. Finding based, i.e., customized considering singular understudy shortcomings separated from the exhibition model. Gathered, i.e., in light of weighted and positioned student evaluations considering the presentation information from the understudy model.

Calculation 2

Question development

Information: I= {I1,I2,..,} is the arrangement of past inquiries executed on Fi.

Result: Ione is the inquiry of One-Question

start

σ one ← − 0

for I∈ I do

σ one ← − σone∨ σ I

Aone ← − AFi

∪ Ar(Fi)

Ione ← − GenerateQuery(Aone,σone)

estimation

The target of our assessment is to verify the accompanying theories:

H1: Is DIF additional valuable than obtainable frameworks, for example, tweaked question structure and static inquiry structure?

H2: Is DIF increasingly significant to rank protrusion and determination instrument then the gauge and the arbitrary strategy?

H3: Is DIF viable to rank the related question structure segments in an online UI?

H4: Is DIF progressively functional for taking a decent choice between the resultant qualities?

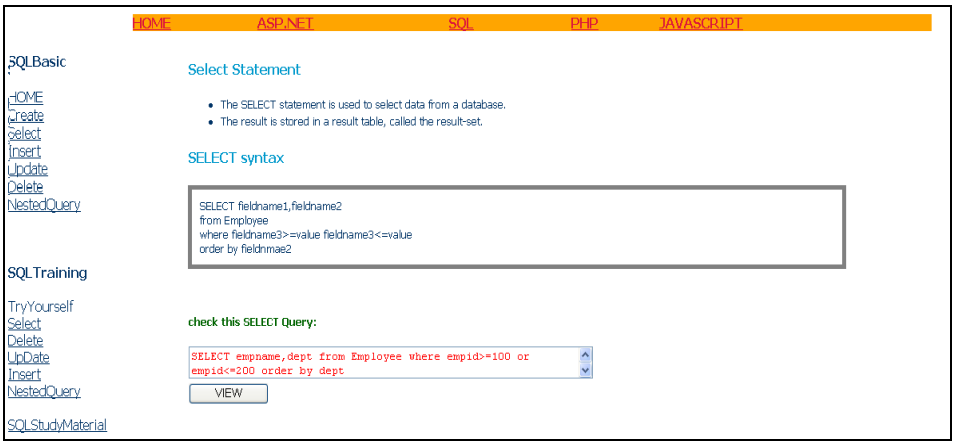

Fig. 2. Selecting Query Condition

Composing admirably controlled questions, in parlance, for example, SQL and XQuery, can be troublesome because of assorted clarifications, the client's absence of recognition with the inquiry language and the client's numbness of the fundamental diagram. The framework has actualized as independent framework utilizing java-5.1.12. The framework utilizes SQL Server as the database motor. The entire tests are run utilizing machine with Intel(R) Center (1M) i3-4005U CPU @ 1.70GHz,(Approx.) and running on Windows XP. Representative informational collection is utilized for trial. Representative dataset comprises of four databases, 15 tables, 25 characteristics, and close around 500 records from every one of the tables. In result examination the F-score is determined with the assistance of accuracy and review. F-score is utilized to quantify the integrity of inquiry shapes. Additionally the inputs reinforcement is store so that

id	formname	better	average	good	bad	fscore	preci	recall
235	Form236	1	null	null	null	0.335784808875173	0.465	0.75684
236	Form237	1	null	null	null	0.171072311556579	0.2325	0.75684
237	Form238	1	null	null	null	0.0692154956944099	0.0930000000000001	0.75684
238	Form239	1	null	null	null	0.137378242114204	0.186	0.75684
239	Form240	1	null	null	null	0.0768406795265623	0.103333333333333	0.75684
240	Form241	null	1	null	null	0.0542951386347528	0.0728313253012048	0.75684
241	Form242	null	1	null	null	0.0244404437698804	0.0326756756756757	0.75684
242	Form243	1	null	null	null	0.0430555555555556	0.186	0.75684
243	Form244	null	null	null	null	null	null	null
244	Form245	1	null	null	null	0.0329009433962265	0.0930000000000001	0.0830357142857144
245	Form246	null	1	null	null	0.0424012158054711	0.177142857142857	0.0830357142857142
246	Form247	null	null	null	null	0.0324830651989839	0.0905309734513274	0.0830357142857142
247	Form248	null	1	null	null	0.0458881578947369	0.2325	0.0830357142857144
248	Form249	null	null	null	null	null	null	null
249	Form250	null	null	null	null	0.037550471063257	0.126101694915254	0.0830357142857142
250	Form251	null	null	null	null	0.0222665602553871	0.0462111801242236	0.0830357142857142
251	Form252	1	null	null	null	0.0288223140495868	0.132857142857143	0.0540697674418605
252	Form253	null	1	null	null	0.0531428571428571	0.132857142857143	0.151836734693878
253	Form254	1	null	null	null	0.0571721311475411	0.93	0.0830357142857144
254	Form255	1	null	null	null	0.0238869863013699	0.0978947368421052	0.0472081218274112
255	Form256	1	null	null	null	0.032939787485242	0.1984	0.0564063684609552
256	Form257	1	null	null	null	0.0208416334661355	0.0858461538461539	0.0410898379970545

Fig 3.F-Score Result

It is to be noticed that what will be the input is given by the client to a specific structure is likewise by tapping on the structure name appeared in the fig.8-F-Score Result

demonstrates that one can alter structure again and furthermore see the outcome at whatever point required.

Conclusion

The Dynamic query constitutionapproach causes the customers effectively to make request shapes. The key action is to utilize a probabilistic model to rank structure fraction subject to customer tendencies. Using both chronicled request and run-time contribution, for instance, explore, customer tendency can be gotten. Preliminary outcomes demonstrate that the dynamic technique as frequently as potential prompts higher accomplishment rate and less troublesome request structures measure up to a static strategy. The situating of structure parts in like manner plan less complex for customers to change request shapes. This social data is connected with non-social data for better result and execution.

References

1. Balazinska, M., Khoussainova, N., Gatterbauer, W., Kwon, Y. and Suciu, D. (2009) 'A case for a collaborative query management system', In Proceedings of CIDR.

2. Bazeer Ahamed, & Ramkumar, T. An intelligent web search framework for performing efficient retrieval of data. Computers & Electrical Engineering, 56, 289-299,2016.

3. Jayapandian, M. and Jagadish, H. V. (2009) 'Automating the design and construction of query forms'. IEEE TKDE, 21(10):1389– 1402.

4. Bazeer Ahamed B., Ramkumar, Predict Keyword Based Search Process using Semantic Method, International Journal of Control Theory and Applications,Vol.10,Issues 16,2017.

5. Roy, S. B., Wang, H., Nambiar, U., Das, G. and Mohania, M. K. (2009) 'Dynacet: Building dynamic faceted search systems over databases', In Proceedings of ICDE, pages 1463–1466.

6. Seffah, A., Donyaee, M., Kline, R. B. and Padda, H. K. (2006) 'Usability measurement and metrics: A consolidated model', Software Quality Journal, 14(2):159–178.

7. Bazeer Ahamed B., Ramkumar .Deduce User Search Progression with Feedback Session, Advances in Systems Science and Application, Vol.15 No.4,2015.

8. K. Chen, H. Chen, N. Conway, J. M. Hellerstein, and T. S. Parikh. Usher: Improving data quality with dynamic forms. In Proceedings of ICDE conference, pages 321–332, Long Beach, California, USA, March 2010.

9. L. Tang, T. Li, Y. Jiang, Z. Chen, "Dynamic Query Forms for Database Queries", IEEE transactions on knowledge and data engineering, 2013.

10. Liang Tang, Tao Li, and Zhiyuan Chen, " Dynamic Query Forms for Database Queries" , IEEE Transaction On Knowledge and data Engineering, vol. 26, no.9, September 2014.

11. K. Chen, H. Chen, N. Conway, J. M. Hellerstein and T. S. Parikh. Usher: Improving data quality with dynamic forms. In proceedings of ICDE Conference, pages 321-332, Long Beach, California, USA, March 2010.

12. Jayashri M. Jambukar." Survey Paper on Creation Of dynamic query Form for mining highly Optimized transactional databases". International Journal of Computational Engineering Research,Vol, 04,Issue, 3, March 2014.

13. Boriah, S., Chandola, V. and Kumar, V. (2008) ' Similarity measures for categorical data: A comparative evaluation', In Proceedings of SIAM International Conference on Data Mining (SDM 2008), pages 243–254.

14. Bazeer Ahamed B, Ramkumar, T., & Hariharan, S. (2014, December). Data integration progression in large data source using mapping affinity. In Advanced Software Engineering and Its Applications (ASEA), 2014 7th International Conference on(pp. 16-21). IEEE.

15. Zhang, T., Ramakrishnan, R. and Livny, M. (1996) 'Birch: An efficient data clustering method for very large databases', In Proceedings of SIGMOD, pages 103–114.

16. Nandi, A. and Jagadish, H. V. (2007) 'Assisted querying using instant response interfaces', In Proceedings of ACM SIGMOD, pages 1156– 1158.

17. Bazeer Ahamed B, Ramkumar, T,Uncertainty Relations system in Semantic Web Search Engine, International Journal of Applied Engineering Research, Volume 10, Issue No.20,2015.