CLAIMS

What is claimed is:

1. A method for generating a custom index, comprising:

determining at least one first-order operator, the first-order operator being an index of basic category or custom category, and determining a data processing rule corresponding to each first-order operator in the at least one first-order operator, wherein each data processing rule is determined from a set of data processing rules corresponding to a data type of its corresponding first-order operator, and defines how to process and compute data of its corresponding first-order operator; and

generating the custom index based on the at least one first-order operator and the data processing rule corresponding to each first-order operator, the custom index being an index of the custom category,

wherein the custom index can serve as the first-order operator, to generate a new custom index.

2. The method for generating a custom index according to claim 1, wherein the determining at least one first-order operator comprises:

receiving one or more first selection operations performed by a user on an index set via a terminal device, to determine one or more first-order operators; or

receiving one or more first text entry operations performed by the user via a terminal device, and identifying one or more first-order operators based on received one or more first text entry operations; or

importing one or more first-order operators from an index sharing platform; or

providing a first chatbot human-computer interface via a terminal device, to receive one or more first input information from a user; and extracting semantics from the one or more first input information, to determine the one or more first-order operators.

3. The method for generating a custom index according to claim 1 or 2, wherein the determining a data processing rule corresponding to each first-order operator in the at least one first-order operator, comprises:

performing the following processes on each first-order operator:

determining, based on the set of data processing rules corresponding to the data type of the first-order operator, one data processing rule in the set of data processing rules as the data processing rule of the first-order operator, wherein the data type of the first-order

operators is numeric, character, time, or geography; data processing rules corresponding to the numerical value comprise one or more of the following: averaging, summing, counting, de-duplication counting, maximum, minimum, value proportion and accumulation.

4. The method for generating a custom index according to any one of claims 1 to 3, wherein after determining the at least one first-order operator and determining the data processing rule corresponding to each first-order operator in the at least one first-order operator, the method further comprises:

performing the following processes on one or more first-order operators in the at least one first-order operator: and

determining at least one second-order operator corresponding to the first-order operators, and determining a secondary filtering rule corresponding to each second-order operator in the at least one second-order operator, the second-order operator being an index of basic category or custom category,

wherein the generating the custom index based on the at least one first-order operator and the data processing rule corresponding to each the first-order operator, comprises:

generating the custom index based on the at least one first-order operator and the data processing rule corresponding to each the first-order operator, and the at least one second-order operator and the secondary filtering rule corresponding to each the second-order operator.

5. The method for generating a custom index according to claim 4, wherein the determining at least one second-order operator corresponding to the first-order operators, comprises:

receiving one or more second selection operations performed by the user for the index set via a terminal device, to determine one or more second-order operators; or

receiving one or more second text entry operations performed by the user, to identify the one or more second-order operators based on received one or more second text entry operations via a terminal device,

wherein the determining a secondary filtering rule corresponding to each second-order operator in the at least one second-order operator, comprises:

receiving third text entry operations and/or third selection operations performed by the user via a terminal device, to determine the secondary filtering rule corresponding to the second-order operator; or

receiving a type selection operation performed by the user on a set of judgement types via a terminal device, to determine a judgement type corresponding to the second-order operator; receiving a fourth text entry operation and/or a fourth selection operation performed by the user via the terminal device, to determine the secondary filtering rule corresponding to the second-order operator in combined with the judgement types.

6. The method for generating a custom index according to claim 5, wherein the receiving a type selection operation performed by the user on a set of judgement types, to determine a judgement type corresponding to the second-order operator, comprises:

displaying the set of judgement types corresponding to data types of the second-order operators via the terminal device, the data type of the second-order operator being: numeric, character, time, or geography; and

receiving a type selection operation performed by the user on one judgement type in the set of judgement types, and taking a judgement type selected by the user as a judgement type corresponding to the second-order operator.

7. The method for generating a custom index according to any one of claims 1-6, wherein when the at least one first-order operator comprises a plurality of first-order operators, the method further comprises:

determining operation rules among the plurality of first-order operators;

wherein the generating the custom index based on the at least one first-order operator and the data processing rule corresponding to each first-order operator, comprises:

generating the custom index based on the plurality of first-order operators, the data processing rule corresponding to each the first-order operator, and the operation rules among the plurality of first-order operators.

8. The method for generating a custom index according to claim 7, wherein the operation rules among the plurality of first-order operators comprise an operation order and one or more operators as follows: arithmetic operator, comparison operator, and logical operator, and the operator order is used for indicating an operational precedence,

wherein the determining operation rules among the plurality of first-order operators, comprises:

receiving a fifth text entry operation and/or a fifth selection operation performed by the user, to determine operation rules among the plurality of first-order operators; or

providing a second chatbot human-computer interface via the terminal device, to receive one or more second input information from the user; and extracting semantics from each second input information in the one or more second input information, to determine the operation rules among the plurality of first-order operators.

9. The method for generating a custom index according to any one of claims 1-8, further comprising:

checking an index formula corresponding to the custom index, to obtain a check result, wherein the check result indicates whether the formula is correct or incorrect.

10. The method for generating a custom index according to claim 9, further comprising:

generating a correction prompt information corresponding to the custom index and displaying the correction prompt information on the terminal device when the formula is incorrect.

11. The method for generating a custom index according to any one of claims 1-10, further comprising:

using an index editor to provide a custom index generating interface, which comprises:

a combo box configured to receive first text entry operations and/or first selection operations performed by a user, to determine at least one first-order operators;

a formula edit box configured to display each first-order operator in the at least one first-order operator determined by the user through an operator control, and to receive rule selection operations performed by the user for a drop-down list box in the operator control, to determine a data processing rule corresponding to each first-order operator, wherein each data processing rule is determined from a set of data processing rules corresponding to a data type of its corresponding first-order operator, and defines how to process and compute data of its corresponding first-order operator;

an index generating button configured to generate a custom index based on the at least one first-order operator and the data processing rule corresponding to each first-order operator upon being clicked, the custom index being of custom category;

wherein the custom index can serve as the first-order operator, to generate a new custom index.

12. The method for generating a custom index according to claim 11, wherein the

operator control further comprises:

a secondary filter configured to determine at least one second-order operator corresponding to the at least one first-order operator and a secondary filtering rule corresponding to each second-order operator in the at least one second-order operator.

13. The method for generating a custom index according to claim 11 or 12, wherein the custom index generating interface further comprises:

a tooltip control configured to display a prompt information corresponding to the formula edit box when a mouse hover operation is received.

14. The method for generating a custom index according to any one of claims 1-13, further comprising:

performing data processing on a set of to-be-processed data based on the custom index to obtain data analysis result of the set of to-be-processed data,

wherein the to-be-processed data comprises patent data, and the first-order operator comprises at least one of the following:

receiving office, applicant, inventor, agency, patent agent, application date, grant date, priority date, application number, publication number, patent abstract, patent title, patent type, patent classification number, citations, number of claims, first claim, patent legal status, international patent classification, patent examiner, patent priority, patent litigation information, patent transfer information, citation count for a patent , backward citation count for a patent, patent family members, patent technology field classification, or patent application field classification.

15. An electronic device comprising a memory and at least one processor, wherein the memory stores a computer program therein, and the at least one processor is configured to execute the computer program, to perform steps of the method according to any one of claims 1-14.

16. A computer readable storage medium storing a computer program thereon, wherein when executed by at least one processor, the computer program causes the at least one processor to perform steps of the method according to any one of claims 1-14.