

CLAIMS

What is claimed is:

1. A data processing method, executable by an electronic device, the method comprising:
obtaining a preset value range, and historical operation information of data units;
counting quantities of times of historical operations of the data units based on the historical
operation information;
grouping the data units based on the quantities of times of historical operations and the preset
value range to obtain a data group set;

obtaining an operation instruction, the operation instruction comprising operation type information and to-be-operated data unit information corresponding to a to-be-operated data unit;

querying a target data group in ~~a~~the data group set according to the to-be-operated data unit information, the data group set comprising at least one data group, the data group comprising at least one data unit;

obtaining locked-state information of the target data group;

performing locking detection on the to-be-operated data unit based on the locked-state information and the operation type information to obtain a detection result;

performing locking processing on the to-be-operated data unit based on the detection result;
and

executing the operation instruction after the locking processing is performed, to perform an operation corresponding to the operation type information on the to-be-operated data unit.

2. The data processing method according to claim 1, wherein the operation type information comprises a first operation type and a second operation type, the locking detection comprises first locking detection and second locking detection, and the detection result comprises a first locking detection result and a second locking detection result;

wherein the performing locking detection on the to-be-operated data unit based on the locked-state information and the operation type information to obtain a detection result comprises:

performing the first locking detection on the to-be-operated data unit based on the locked-state information in response to determining that the operation type information is the first operation type,

to obtain the first locking detection result; or

performing the second locking detection on the to-be-operated data unit based on the locked-state information in response to determining that the operation type information is the second operation type, to obtain the second locking detection result; and

wherein the locking processing comprises first locking processing and second locking processing, and the performing locking processing on the to-be-operated data unit based on the detection result comprises:

performing the first locking processing on the to-be-operated data unit based on the first locking detection result; or

performing the second locking processing on the to-be-operated data unit based on the second locking detection result.

3. The data processing method according to claim 2, wherein the locked-state information comprises data locks of data units in the target data group, and the data locks comprise a first data lock and a second data lock;

wherein the performing the first locking detection on the to-be-operated data unit based on the locked-state information to obtain the first locking detection result comprises:

determining all data locks corresponding to the to-be-operated data unit based on the locked-state information; and

obtaining the first locking detection result in response to determining that all the data locks comprise neither a first data lock nor a second data lock; and

wherein the performing the first locking processing on the to-be-operated data unit based on the first locking detection result comprises:

adding, for the to-be-operated data unit, a first data lock of the operation instruction to the locked-state information based on the first locking detection result.

4. The data processing method according to claim 2, wherein the locked-state information comprises data locks of data units in the target data group, and the data locks comprise a first data lock and a second data lock;

wherein the performing the second locking detection on the to-be-operated data unit based on the locked-state information to obtain the second locking detection result comprises:

determining all data locks corresponding to the to-be-operated data unit based on the locked-state information of the target data group; and

obtaining the second locking detection result in response to determining that the data locks corresponding to the to-be-operated data unit comprise only a second data lock; or obtaining the second locking detection result in response to determining that the data locks corresponding to the to-be-operated data unit comprise neither a first data lock nor a second data lock; and

wherein the performing the second locking processing on the to-be-operated data unit based on the second locking detection result comprises:

adding, for the to-be-operated data unit, a second data lock of the operation instruction to the locked-state information based on the second locking detection result.

~~5. The data processing method according to claim 1, further comprising: before the obtaining an operation instruction,—~~

~~obtaining a preset value range, and historical operation information of data units;~~

~~counting quantities of times of historical operations of the data units based on the historical operation information; and~~

~~grouping the data units based on the quantities of times of historical operations and the preset value range to obtain the data group set.~~

~~65. The data processing method according to claim 51, wherein the data group set comprises one first data group and a plurality of second data groups; and~~

~~wherein the grouping the data units based on the quantities of times of historical operations and the preset value range to obtain the data group set comprises:~~

~~respectively calculating historical operation probabilities of the data units based on the quantities of times of historical operations;~~

~~generating the one first data group; and~~

~~adding a data unit to the first data group in response to determining that a historical operation probability of the data unit does not belong to the preset value range; or generating a second data group corresponding to a data unit in response to determining that a historical operation probability of the data unit belongs to the preset value range, and adding the data unit to the second data group corresponding to the data unit.~~

76. The data processing method according to claim 65, wherein the data unit comprises a plurality of data subunits; and

wherein the generating a second data group corresponding to the data unit, and the adding the data unit to the second data group corresponding to the data unit comprise:

generating the second data group corresponding to the data unit; and

adding the plurality of data subunits to the second data group corresponding to the data unit.

87. The data processing method according to claim 1, further comprising: before the querying a target data group in ~~a~~the data group set according to the to-be-operated data unit information,

obtaining a grouping update instruction; and

regrouping, in response to determining that an instruction type of the grouping update instruction is a user grouping type, data units in the data group set by adopting the grouping update instruction; or automatically regrouping data units in the data group set in response to determining that an instruction type of the grouping update instruction is an automatic grouping type.

98. The data processing method according to claim 87, wherein the automatically regrouping data units in the data group set comprises:

obtaining a preset value range, and historical operation information of the data units;

counting quantities of times of historical operations of the data units in the data group set based on the historical operation information; and

grouping the data units based on the quantities of times of historical operations and the preset value range to obtain a data group set after automatic regrouping.

109. The data processing method according to claim 87, wherein the grouping update instruction comprises a grouping quantity; and

wherein the regrouping data units in the data group set by adopting the grouping update instruction comprises:

equally dividing the data units in the data group set into the grouping quantity of data groups to obtain a data group set after grouping.

110. The data processing method according to claim 1, further comprising: after the executing the operation instruction to perform an operation corresponding to the operation type information on the to-be-operated data unit,

obtaining historical operation information of the data unit; and
updating the historical operation information of the data unit based on the operation instruction.

1211. The data processing method according to claim 1, wherein the locked-state information comprises data locks of data units in the target data group; and

wherein the method further comprises: after the executing the operation instruction to perform an operation corresponding to the operation type information on the to-be-operated data unit, deleting, for the to-be-operated data unit, a data lock corresponding to the operation instruction from the locked-state information.

1312. A data processing apparatus, comprising:

an obtaining unit, configured to obtain a preset value range, and historical operation information of data units; count quantities of times of historical operations of the data units based on the historical operation information; group the data units based on the quantities of times of historical operations and the preset value range to obtain a data group set; and obtain an operation instruction, the operation instruction comprising operation type information and to-be-operated data unit information corresponding to a to-be-operated data unit;

a query unit, configured to query a target data group in ~~a~~the data group set according to the to-be-operated data unit information, the data group set comprising at least one data group, the data group comprising at least one data unit;

a data lock unit, configured to obtain locked-state information of the target data group;

a detection unit, configured to perform locking detection on the to-be-operated data unit based on the locked-state information and the operation type information to obtain a detection result;

a locking unit, configured to perform locking processing on the to-be-operated data unit based on the detection result; and

an execution unit, configured to execute the operation instruction after the locking processing is performed, to perform an operation corresponding to the operation type information on the to-be-operated data unit.

1413. A computer-readable storage medium, storing a plurality of instructions, the instructions being configured to be loaded by a processor, to perform the operations of the data processing

method according to any one of claims 1 to ~~12~~11.

~~15~~14. A server, comprising a processor and a memory, the memory storing a plurality of instructions, and the processor loading the instructions from the memory, to perform the operations of the data processing method according to any one of claims 1 to ~~12~~11.

~~16~~15. A computer program product, the computer program product, when executed, being configured to perform the operations of the data processing method according to any one of claims 1 to ~~12~~11.