

CLAIMS

1. A data processing method, wherein the method comprises:

obtaining a user identifier, an attribute identifier and an attribute value of at least one personal attribute corresponding to the user identifier (S101);

for each of the at least one personal attributes, generating a target attribute correspondence of the personal attribute based on the attribute identifier and the attribute value of the personal attribute (S102);

determining whether a target attribute storage field corresponding to the user identifier exists in stored first correspondences between user identifiers and attribute storage fields (S103); and

in response to determining that a target attribute storage field corresponding to the user identifier exists in stored first correspondences between user identifiers and attribute storage fields, storing all of the generated target attribute correspondences in the target attribute storage field (S104); or

in response to determining that a target attribute storage field corresponding to the user identifier does not exist in stored first correspondences between user identifiers and attribute storage fields, creating an attribute storage field corresponding to the user identifier (S105), and storing all of the generated target attribute correspondences in the created attribute storage field (S106-), wherein generating a target attribute correspondence of the personal attribute based on the attribute identifier and the attribute value of the personal attribute comprises:
establishing a target attribute correspondence between the attribute identifier of the personal attribute and the attribute value of the personal attribute,

wherein storing all of the generated target attribute correspondences in the target attribute storage field comprises:

determining a location where the target attribute correspondence is to be stored in the target attribute storage field based on the index identifier in the target attribute correspondence and index identifiers in all attribute correspondences stored in the target attribute storage field (S301); and

storing the target attribute correspondence in the determined location (S302), and
wherein the method further comprises searching the target attribute storage field to determine whether an attribute correspondence including an index identifier exists in the target

attribute storage field, comprising:

comparing the index identifier with index identifiers in attribute correspondences at one or more predetermined locations in the target attribute storage field;

determining an approximate location of the attribute correspondence including the index identifier in the target attribute storage field based on the comparison result; and

comparing the index identifier with the index identifiers in one or more attribute correspondences at the approximate location to determine whether the attribute correspondence including the index identifier exists.

2. The method according to claim 1, wherein generating a target attribute correspondence of the personal attribute based on the attribute identifier and the attribute value of the personal attribute comprises:

~~establishing a target attribute correspondence between the attribute identifier of the personal attribute and the attribute value of the personal attribute.~~

~~3. The method according to claim 1, wherein generating a target attribute correspondence of the personal attribute based on the attribute identifier and the attribute value of the personal attribute comprises:~~

obtaining stored second correspondences between attribute identifiers and index identifiers of sequence indexes;

searching the second correspondences for an index identifier corresponding to the attribute identifier; and

establishing a target attribute correspondence between the index identifier and the attribute value of the personal attribute.

43. The method according to any one of claims 1 ~~to 3~~ or 2, wherein storing all of the generated target attribute correspondences in the target attribute storage field comprises:

determining whether storage space occupied by all the target attribute correspondences is less than or equal to idle storage space of the target attribute storage field (S201); and

in response to determining that the storage space occupied by all the target attribute correspondences is less than or equal to the idle storage space of the target attribute storage field,

storing all of the generated target attribute correspondences in the target attribute storage field (S202); or

in response to determining that the storage space occupied by all the target attribute correspondences is not less than or equal to the idle storage space of the target attribute storage field:

creating at least one new attribute storage field corresponding to the user identifier (S203); and

storing all the target attribute correspondences in the new attribute storage field or in the target attribute storage field and the new attribute storage field (S204).

~~54. The method according to claim 2 or 3, wherein storing all of the generated target attribute correspondences in the target attribute storage field comprises:~~

~~determining a location where the target attribute correspondence is to be stored in the target attribute storage field based on the index identifier in the target attribute correspondence and index identifiers in all attribute correspondences stored in the target attribute storage field (S301); and~~
~~storing the target attribute correspondence in the determined location (S302).~~

~~6. The method according to claim 51, wherein determining a location where the target attribute correspondence is to be stored in the target attribute storage field comprises:~~

~~sorting the stored attribute correspondences based on the index ID identifier in the target attribute correspondence and the index IDs identifiers in the stored attribute correspondences.~~

~~7. The method according to claim 5, wherein the method further comprises searching the target attribute storage field to determine whether an attribute correspondence including an index ID exists in the target attribute storage field, comprising:~~

~~comparing the index ID with index IDs in attribute correspondences at one or more predetermined locations in the target attribute storage field;~~

~~determining an approximate location of the attribute correspondence including the index ID in the target attribute storage field based on the comparison result; and~~

~~comparing the index ID with the index IDs in one or more attribute correspondences at~~

~~the approximate location to determine whether the attribute correspondence including the index ID exists.~~

8. The method according to any one of claims 1 to ~~74~~, wherein the method further comprises querying an attribute value of one or more personal attributes of the user to provide a specific service to the user.

~~96~~. The method according to any one of claims 1 to ~~85~~, wherein the method further comprises:

when the target attribute storage field corresponding to the user identifier exists in the first correspondences, searching the target attribute storage field to determine whether an attribute correspondence corresponding to the attribute identifier exists in the attribute storage field; and

when the attribute correspondence corresponding to the attribute identifier exists, obtaining an attribute value in the attribute correspondence.

~~107~~. The method according to claim ~~96~~, wherein searching the target attribute storage field to determine whether an attribute correspondence corresponding to the attribute identifier exists in the attribute storage field comprises:

searching the target attribute storage field to determine whether an attribute correspondence comprising the attribute identifier exists in the target attribute storage field; and

determining that the attribute correspondence corresponding to the attribute identifier exists in the target attribute storage field when the attribute correspondence comprising the attribute identifier exists.

~~118~~. The method according to claim ~~96~~, wherein searching the target attribute storage field to determine whether an attribute correspondence corresponding to the attribute identifier exists in the target attribute storage field comprises:

obtaining second correspondences between attribute identifiers and index identifiers;

searching the second correspondences for an index identifier corresponding to the attribute identifier;

searching the target attribute storage field to determine whether an attribute correspondence comprising the index identifier exists in the attribute storage field; and

determining that the attribute correspondence corresponding to the attribute identifier exists in the target attribute storage field when the attribute correspondence comprising the index identifier exists.

~~129~~. A data processing device, wherein the device comprises multiple modules configured to perform operations according to the method of any one of claims 1 to ~~44~~8.