CLAIMS

What is claimed is:

1. A blockchain-based data processing method, applied to a blockchain node in a blockchain, wherein the blockchain is used to store a payment record and an electronic ticket that are obtained after an institution member makes a payment based on a reimbursement code of an institution, and the method comprises:

performing an expense control verification on the reimbursement payment event of the institution member based on an expense control rule configured for the reimbursement code;

if the expense control verification succeeds, performing payment processing based on an institution account bound to the institution, to obtain the payment record of the reimbursement payment event, and uploading the payment record to the blockchain;

after performing the expense control verification, querying a payment record and an electronic ticket of a reimbursement payment event of the institution member in the blockchain after a write-off condition of the institution member is triggered;

performing association processing of the reimbursement payment event based on the queried payment record and electronic ticket, to obtain to-be-written-off data;

performing write-off processing on the to-be-written-off data, to generate a reimbursement form of the institution member, and performing on-chain processing; and

performing accounting processing based on the reimbursement form, and uploading an obtained accounting voucher to the blockchain for tax declaration processing.

2. The blockchain-based data processing method according to claim 1, wherein the blockchain is further used to store an institution identifier of the institution and an association relationship between the institution and the institution member, and the method further comprises:

obtaining the institution identifier of the institution and a member identifier of the institution member of the institution when a reimbursement code activation application of the institution is detected and the reimbursement code is successfully generated; and

establishing an association relationship between the institution identifier and the member identifier, and uploading the institution identifier and the association relationship to the blockchain.

3. The blockchain-based data processing method according to claim 2, wherein the reimbursement code of the institution is activated in the following manner:

detecting, based on a reimbursement code activation request, whether the institution is an authenticated institution, or whether an institution member submitting the reimbursement code activation request is an institution owner of the institution; and

if yes, generating the reimbursement code, delivering the reimbursement code to the institution or the institution member submitting the reimbursement code activation request, and establishing a binding relationship between the institution and a submitted institution account.

4. The blockchain-based data processing method according to claim 1, further comprising:

sending an activation invitation of the reimbursement code to the institution member based on an activation request submitted by the institution for the institution member;

performing identity verification processing on the institution member when a confirmation instruction submitted by the institution member for the activation invitation is detected; and

when the identity verification processing succeeds, establishing a mapping relationship between the institution member and institution keyword information of the institution, and uploading the mapping relationship to the blockchain.

5. The blockchain-based data processing method according to claim 4, wherein the electronic ticket is generated and uploaded by a ticket node of a ticket issuer in the blockchain, and the ticket node issues the electronic ticket in the following manner:

querying, in the blockchain, institution keyword information that has a mapping relationship with the institution member; and

issuing the electronic ticket of the reimbursement payment event based on the institution keyword information and the payment record that is of the reimbursement payment event and that is read from the blockchain, and performing on-chain processing.

6. The blockchain-based data processing method according to claim 1, wherein the write-off condition of the institution member comprises at least one of the following:

a reimbursement limit allocated by the institution to the institution member for the reimbursement code is exhausted, and a ticket application control of the reimbursement payment event of the institution member is triggered; and

the ticket application control is configured on a payment completion page generated after a payment of the reimbursement payment event is completed.

7. The blockchain-based data processing method according to claim 1, wherein the electronic ticket is uploaded by a reimbursement processing system that accesses the blockchain node, and the reimbursement processing system obtains the electronic ticket in the following manner:

performing expense control verification on the reimbursement payment event of the institution member based on an expense control rule configured for the reimbursement code;

if the expense control verification succeeds, performing payment processing based on an institution account bound to the institution, to obtain the payment record of the reimbursement payment event; and

obtaining the electronic ticket submitted by the institution member, or transferring the payment record to a ticket application link activated by a merchant, to generate the electronic ticket of the reimbursement payment event.

8. The blockchain-based data processing method according to claim 1, wherein the performing association processing of the reimbursement payment event based on the queried payment record and electronic ticket, to obtain to-be-written-off data comprises:

analyzing a business payment relationship between a plurality of reimbursement payment events based on element information comprised in payment records of the plurality of reimbursement payment events; and

combining the plurality of reimbursement payment events into a business payment event based on the business payment relationship, and determining a payment record set and an electronic ticket set of the business payment event as the to-be-written-off data.

9. The blockchain-based data processing method according to claim 1, wherein the tax declaration processing is performed by a tax node of a tax institution in the blockchain, and the tax declaration processing performed by the tax node comprises:

reading the accounting voucher of the institution from the blockchain, and creating a declaration form of the institution based on the accounting voucher; and

performing tax declaration processing of the institution based on the declaration form, and uploading a tax declaration processing result to the blockchain, wherein the institution accesses the tax declaration processing result through the blockchain node or an institution node of the institution in the blockchain.

10. The blockchain-based data processing method according to claim 1, wherein the tax declaration processing is performed by an institution system or a third-party system that accesses the blockchain node, and the institution system or the third-party system performs tax declaration processing in the following manner:

reading the accounting voucher of the institution from the blockchain, and creating a declaration form of the institution based on the accounting voucher; and

uploading the declaration form to the blockchain, to transmit the declaration form to a tax institution through the blockchain; or transferring the declaration form through a data interface provided by a tax institution, and uploading, to the blockchain, a tax declaration processing result returned by the data interface.

11. The blockchain-based data processing method according to claim 1 or 7, wherein the expense control verification is implemented in the following manner:

determining a target reimbursement category that matches the reimbursement payment event in at least one reimbursement category of the expense control rule;

verifying whether element information carried in the reimbursement payment event falls within a value range of an expense control element associated with the target reimbursement category; and

if yes, determining that verification on the reimbursement payment event in terms of the target reimbursement category succeeds.

12. The blockchain-based data processing method according to claim 1 or 7, wherein the institution account comprises a financial account activated by the institution at a financial institution; and

correspondingly, the performing payment processing based on an institution account bound to the institution comprises:

transferring out funds from the financial account based on an order amount carried in the reimbursement payment event, and transferring the transferred-out funds to an account of the merchant, wherein

the funds transferred out from the financial account are prepaid by the financial institution, and the institution reimburses the financial institution for the prepaid funds in an agreed billing period.

13. A blockchain-based data processing apparatus, running on a blockchain node in a blockchain, wherein the blockchain is used to store a payment record and an electronic ticket that are obtained after an institution member makes a payment based on a reimbursement code of an institution, and the apparatus comprises:

an expense control verification module, configured to perform an expense control verification on a reimbursement payment event of the institution member based on an expense control rule configured for the reimbursement code;

a payment processing module, configured to, if the expense control verification succeeds, perform payment processing based on an institution account bound to the institution, to obtain the payment record of the reimbursement payment event, and upload the payment record to the blockchain;

an event data query module, configured to query a payment record and an electronic ticket of a reimbursement payment event of the institution member in the blockchain after a write-off condition of the institution member is triggered;

an event association module, configured to, after the expense control verification is performed by the expense control verification module, perform association processing of the reimbursement payment event based on the queried payment record and electronic ticket, to obtain to-be-written-off data;

a write-off processing module, configured to perform write-off processing on the to-be-written-off data, to generate a reimbursement form of the institution member, and perform on-chain processing; and

an accounting processing module, configured to perform accounting processing based on the reimbursement form, and upload an obtained accounting voucher to the blockchain for tax declaration processing.

14. A blockchain-based data processing device, comprising:

a processor; and a storage, configured to store computer-executable instructions, wherein when the computer-executable instructions are executed, the processor is enabled to perform the following operations:

performing an expense control verification on the reimbursement payment event of the institution member based on an expense control rule configured for the reimbursement code;

if the expense control verification succeeds, performing payment processing based on an institution account bound to the institution, to obtain the payment record of the reimbursement payment event, and uploading the payment record to the blockchain;

after performing the expense control verification, querying a payment record and an electronic ticket of a reimbursement payment event of an institution member in a blockchain after a write-off condition of the institution member is triggered, wherein the blockchain is used to store a payment record and an electronic ticket that are obtained after the institution member makes a payment based on a reimbursement code of an institution;

performing association processing of the reimbursement payment event based on the queried payment record and electronic ticket, to obtain to-be-written-off data;

performing write-off processing on the to-be-written-off data, to generate a reimbursement form of the institution member, and performing on-chain processing; and

performing accounting processing based on the reimbursement form, and uploading an obtained accounting voucher to the blockchain for tax declaration processing.

15. A storage medium, configured to store computer-executable instructions, wherein when the computer-executable instructions are executed, the following procedure is implemented:

performing an expense control verification on the reimbursement payment event of the institution member based on an expense control rule configured for the reimbursement code;

if the expense control verification succeeds, performing payment processing based on an institution account bound to the institution, to obtain the payment record of the reimbursement payment event, and uploading the payment record to the blockchain;

after performing the expense control verification, querying a payment record and an electronic ticket of a reimbursement payment event of an institution member in a blockchain after a write-off condition of the institution member is triggered, wherein the blockchain is used to store a payment record and an electronic ticket that are obtained after the institution member makes a payment based on a reimbursement code of an institution;

performing association processing of the reimbursement payment event based on the queried payment record and electronic ticket, to obtain to-be-written-off data;

performing write-off processing on the to-be-written-off data, to generate a reimbursement form of the institution member, and performing on-chain processing; and

performing accounting processing based on the reimbursement form, and uploading an obtained accounting voucher to the blockchain for tax declaration processing.