

POPCHAIN Database Design Specification

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About the book

Overview

- This book is the table structure design specification of POPCHAIN – the blockchain project of POPCHAIN Foundation.
- POPCHAIN Foundation provides the hardware and software design and the implementation solutions for the project.
- POPCHAIN Foundation has the final right to modify and interpret this document and the program.

I. Description

1. Comply with the data design specification of 3NF regulations
2. A row of records must be unique within the table, the table must have a primary key
3. Time use timestamp
4. Primary Foreign Key Selection
create foreign keys for associated fields, unique foreign keys, avoid using composite keys, and associate unique key fields with foreign keys
5. The length in the table is 0

It means that the actual length is not specified. You can add the specified length according to the actual data. Part of the field length is optimized according to the length of the subsequent business needs.

II. Table summary

Table	Function
th_member	Member
th_accountrecord	Member Account Table
th_datadictionary	Data Dictionary Table
th_device	CDN Device Table
th_deviceonlinerecord	Device Online Record Table
th_deviceonlinerecordtemp	Device Online Record Backup Table
th_logging	Register Login Log Table
th_message	System Message Sheet
th_sms	Mobile Phone SMS Verification Code Table
th_smstemp	Mobile Phone SMS Verification Code Backup Table
th_traderecord	Transaction Record
th_traderecordtemp	Transaction Record Backup Table
th_traderecordlog	Transaction Log Table

III. Table Structure Details

1. Member

Table	the_member			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
memberId	bigint	20	Major key	Not null
loginName	varchar	50	Login name	Not null
nickName	varchar	255	Nickname	Null
password	varchar	255	Password	Not null
description	varchar	255	Description	Null
iconUrl	varchar	255	Icon	Null
birthday	timestamp		Birthday	Null
gender	varchar	2	Gender 0:woman 1 : man	Null
emailAddresses	varchar	255	Email address	Null
loginErrorTimes	int	2	Login error number	Null
registerTime	timestamp		Registration time	Not null
lastLoginTime	timestamp		Last login time	Null
locked	bit	1	Whether to lock	Not null
loginNum	int	1	Logintimes	Null
authStatus	int	1	Certificate Status	Null
token	varchar	255	Notification push token	Null
updateTime	timestamp		Basic information modification time	Null
lastUpdateTime	timestamp		Client cache last update time	Null
createTime	timestamp		Creation time	Null
imei	varchar	255	imei	Null
uniqueCode	varchar	255	The first login of the mobile phone user to the unique identifier	Null
lockTime	timestamp		Closure time	Null
lockReason	varchar	255	Closure reason	Null
status	bigint	1	state	Not null
city	varchar	255	User's city	Null

province	varchar	255	User's province	Null
country	varchar	255	User's country	Null
reservedField	varchar	255	Reserved field	Null

2. Member Account Table

Table	th_accountrecord			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
accountRecordId	bigint	20	Major key	Not null
memberId	bigint	20	Member ID	Not null
balance	decimal	(20,5)	Balance	Null
benefitBalance	varchar	(20,5)	Total revenue	Null
createTime	timestamp		Creation time	Not null
updateTime	timestamp	64	Modify time	Null
secretKey	varchar	64	Google verifier private key	Null
tradePassword	varchar	64	Fund password	Null
reservedField	varchar	64	Reserved field	Null

3. Data Dictionary Table

Table	th_datadictionary			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
dictionaryId	bigint	20	Major key	Not null
category	varchar	255	Type	Not null
code	varchar	255	Code	Not null
value	varchar	255	Value	Not null
categoryText	varchar	255	Type test	Not null
displayOrder	int	8	display serial number	Not null
status	int	1	State	Not null
reservedField	varchar	64	Reserved field	Null

4. CDN Device Table

Table	th_device			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
deviceId	bigint	20	Device ID	Not null
memberId	bigint	20	Member ID	Not null
deviceAddresses	varchar	255	Device address	Not null
bandWidth	decimal	(10,0)	bandwidth	Not null
hardDiskSize	decimal	(10,0)	In terms of M, disk size	Not null
usedSize	decimal	(10,0)	Used size	Not null
externalIP	varchar	128	External IP	Not null
internalIP	varchar	128	Internal IP	Not null
deviceLastUp Time	timestamp		Last upload update time	Not null
status	int		State,0.Offline,1.Online,2. Device failure,3.Remove binding,4.Lock device	Not null
version	varchar	128	Device version information	Not null
createTime	timestamp		Creation time	Not null
reservedField	varchar	255	Reserved field	Null

5. Device Online Record Table

Table	th_deviceonlinerecord			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
deviceId	bigint	20	Device ID	Not null
memberId	bigint	20	Member ID	Not null
bandWidth	decimal	(10,0)	bandwidth	Not null
hardDiskSize	decimal	(10,0)	In terms of M, disk size	Not null
usedSize	decimal	(10,0)	Used size	Not null
onLineTime	bigint	10	Online time	Not null
deviceLastUp Time	timestamp		Last upload time	Not null
deviceUpTime	int		Upload time	Not null
createTime	timestamp		Creation time	Not null
reservedField	varchar	255	Reserved field	Null

6. Device Online Record Backup Table

Table	th_deviceonlinerecordtemp			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
deviceId	bigint	20	Device ID	Not null
memberId	bigint	20	Member ID	Not null
bandWidth	decimal	(10,0)	bandwidth	Not null
hardDiskSize	decimal	(10,0)	In terms of M, disk size	Not null
usedSize	decimal	(10,0)	Used size	Not null
onLineTime	bigint	10	Online time	Not null
deviceLastUp Time	timestamp		Last upload time	Not null
deviceUpTime	int		Upload time	Not null
createTime	timestamp		Creation time	Not null
reservedField	varchar	255	Reserved field	Null

7. Register Login Log Table

Table	th_logging			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
id	bigint	20	Device ID	Not null
memberId	bigint	20	Member ID	Not null
loginName	varchar	64	User name	Not null
deviceIp	varchar	20	IP	Not null
os	varchar	20	Client type	Null
brand	varchar	50	Mobile brand	Null
model	varchar	50	Device No	Null
version	varchar	20	Version No	Null
loginTime	timestamp		Login time	Not null
type	varchar	1	User type: reserved	
operationType	varchar	1	Operation type: 0: Register write, 1: Login write	Not null
imei	varchar	40	imei	Null

8. System Message Sheet

Table	th_message			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
messageId	bigint	20	ID	Not null
messageText	varchar	255	Message text value	Not null
messageCategory	varchar	255	Message type	Not null
createTime	timestamp		Creation time	Not null
remark	varchar	255	Note	Null
reservedField	varchar	255	Reserved field	Null

9. Mobile Phone SMS Verification Code Table

Table	th_sms			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
id	bigint	20	ID	Not null
phoneNumber	varchar	20	Mobile number	Not null
content	varchar	255	Message content	Not null
verificationCode	varchar	20	Verification code	Not null
sendTime	timestamp		Send time	Not null
receiveTime	timestamp		Receive time	Not null
result	varchar	32	Returned value	Not null
smsType	varchar	20	Message type (1: verification code)	Not null
isReceived	tinyint	1	Have you received any messages (1: received,0: not received)	Not null

10. Mobile Phone SMS Verification Code Backup Table

Table	th_smstemp			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
id	bigint	20	ID	Not null
phoneNumber	varchar	20	Mobile number	Not null
sendTime	timestamp		Send time	Not null
smsType	varchar	20	Message type (1: verification code)	Not null
verificationCode	varchar	20	Verification code	Not null

11. Transaction Record

Table	th_traderecord			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
tradeRecordId	bigint	20	ID	Not null
memberId	bigint	20	Member ID	Not null
deviceId	bigint	20	Device ID	Not null
serviceType	varchar	4	Service type (0: revenue, 1: withdrawal)	Not null
status	int	1	Status: 0 failed, 1 successful, 2 other	Not null
postTime	timestamp		Submission time	Not null
balance	decimal	(20,5)	Income, withdrawal - coin amount	Not null
onLineTime	bigint	20	Online time	Not null
tradeSendAddress	varchar	255	Transaction address information	Not null
tradeReceiveAddress	varchar	255	The transaction receiving address information	Not null
createTime	timestamp		Creation time	Not null
reservedField	varchar	255	Reserved field	Null

12. Transaction Record Backup Table

Table	th_traderecordtemp			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
tradeRecordId	bigint	20	ID	Not null
memberId	bigint	20	Member ID	Not null
deviceId	bigint	20	Device ID	Not null
serviceType	varchar	4	Service type (0: revenue,1: withdrawal)	Not null
status	int	1	Status: 0 failed, 1 successful, 2 other	Not null
postTime	timestamp		Submission time	Not null
balance	decimal	(20,5)	Income, withdrawal - coin amount	Not null
onLineTime	bigint	20	Online time	Not null
tradeSendAddress	varchar	255	Transaction address information	Not null
tradeReceiveAddress	varchar	255	The transaction receiving address information	Not null
createTime	timestamp		Creation time	Not null
reservedField	varchar	255	Reserved field	Null

13. Transaction Log Table

Table	th_traderecordlog			
Listing	Datatype (precision range)	Length	Meaning	Null/not null
tradeRecordLogId	bigint	20	ID	Not null
memberId	bigint	20	Member ID	Not null
tradeRecordId	varchar	20	Transaction ID	Not null
action	int	1	Action 0: withdraw coin	Not null
balanceBefore	timestamp	(20,5)	The coin amount before the transaction	Not null
balanceAfter	decimal	(20,5)	The coin amount after the transaction	Not null
createTime	bigint	20	Creation time	Not null
reservedField	varchar	255	Reserved field	Null

