作业五

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第一题答案为：

CREATE OR **REPLACE** VIEW v\_customeInfo AS

(

SELECT c.CUST\_ID, **CONCAT**(c.PROVICIAL\_REGION,c.CITY,c.ADDRESS) AS ADDR, c.POSTAL\_CODE, **CONCAT**(i.LAST\_NAME,i.FIRST\_NAME)

FROM customer AS c, individual AS i

WHERE c.CUST\_TYPE\_CD='I' AND c.CUST\_ID=i.CUST\_ID

)

UNION

(

SELECT c.CUST\_ID, **CONCAT**(c.PROVICIAL\_REGION,c.CITY,c.ADDRESS) AS ADDR, c.POSTAL\_CODE, b.NAME

FROM customer AS c, business AS b

WHERE c.CUST\_TYPE\_CD='B' AND c.CUST\_ID=b.CUST\_ID

)

第二题答案为：

CREATE VIEW v\_transInfo AS

(

SELECT t.AMOUNT, t.TXN\_DATE, '现金存入' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='CD' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

UNION

(

SELECT t.AMOUNT, t.TXN\_DATE, '现金取出' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='CW' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

UNION

(

SELECT t.AMOUNT, t.TXN\_DATE, '汇款转出' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='TF' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

UNION

(

SELECT t.AMOUNT, t.TXN\_DATE, '汇款转入' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='TT' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

UNION

(

SELECT t.AMOUNT, t.TXN\_DATE, '利息计入' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='IC' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

UNION

(

SELECT t.AMOUNT, t.TXN\_DATE, '贷款拨入' AS TYPE , b1.NAME AS EXECUTION\_BRANCH\_NAME, b2.NAME AS OPEN\_BRANCH\_NAME

FROM acc\_transaction AS t, account AS a, branch AS b1, branch AS b2

WHERE t.ACCOUNT\_ID=a.ACCOUNT\_ID AND t.EXECUTION\_BRANCH\_ID <> a.OPEN\_BRANCH\_ID AND t.TXN\_TYPE\_CD='LI' AND t.EXECUTION\_BRANCH\_ID=b1.BRANCH\_ID AND a.OPEN\_BRANCH\_ID=b2.BRANCH\_ID

)

第三题答案为：

CREATE DEFINER=`root`@`localhost` PROCEDURE `copyTransactionFrom`(IN fDATE datetime)

BEGIN

DROP TABLE IF EXISTS `acc\_transactionNew`;

CREATE TABLE **acc\_transactionNew** AS

SELECT \*

FROM acc\_transaction

WHERE acc\_transaction.TXN\_DATE>fDATE;

END

第四题答案为：

CREATE DEFINER=`root`@`localhost` FUNCTION `func\_vipid`(after\_date datetime) RETURNS int

BEGIN

DECLARE customer\_id int;

DECLARE max\_balance DECIMAL(12,4);

SELECT **MAX**(AVAIL\_BALANCE) INTO max\_balance

FROM ACCOUNT

WHERE OPEN\_DATE>after\_date;

SELECT CUST\_ID INTO customer\_id

FROM ACCOUNT

WHERE AVAIL\_BALANCE=max\_balance;

RETURN customer\_id;

END

第五题答案为：

CREATE DEFINER=`root`@`localhost` FUNCTION `func\_rand\_email`() RETURNS varchar(100) CHARSET utf8mb4 COLLATE utf8mb4\_general\_ci

BEGIN

DECLARE content CHAR(62) DEFAULT 'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';

DECLARE email VARCHAR(100) DEFAULT '';

DECLARE suffix1 CHAR(8) DEFAULT '@163.com';

DECLARE suffix2 CHAR(12) DEFAULT '@hotmail.com';

DECLARE suffix3 CHAR(12) DEFAULT '@ecnu.edu.cn';

DECLARE prefix VARCHAR(50) DEFAULT '';

DECLARE prefix\_len INT;

DECLARE suffix\_id INT;

DECLARE i INT;

SET prefix\_len=**FLOOR**(1+**RAND**()\*50);

SET i=1;

WHILE i<=prefix\_len DO

SET prefix=**CONCAT**(prefix,**SUBSTRING**(content,**FLOOR**(1+**RAND**()\*62),1));

SET i=i+1;

END WHILE;

SET suffix\_id=**FLOOR**(1+**RAND**()\*3);

CASE

WHEN suffix\_id=1 THEN SET email=**CONCAT**(email,prefix,suffix1);

WHEN suffix\_id=2 THEN SET email=**CONCAT**(email,prefix,suffix2);

WHEN suffix\_id=3 THEN SET email=**CONCAT**(email,prefix,suffix3);

END CASE;

RETURN email;

END

第六题答案为：

CREATE DEFINER=`root`@`localhost` FUNCTION `func\_rand\_telnum`() RETURNS varchar(11) CHARSET utf8mb4 COLLATE utf8mb4\_general\_ci

BEGIN

DECLARE head VARCHAR(150) DEFAULT '130,131,132,133,134,135,136,137,138,139,186,187,189,151,157';

DECLARE content CHAR(10) DEFAULT '0123456789';

DECLARE phone VARCHAR(11) DEFAULT **substring**(head, 1+**FLOOR**(**RAND**()\*15)\*4, 3);

DECLARE i int DEFAULT 1;

DECLARE **len** int DEFAULT LENGTH(content);

WHILE i<9 DO

SET i=i+1;

SET phone = **CONCAT**(phone, **substring**(content, **floor**(1 + **RAND**() \* **len**), 1));

END WHILE;

RETURN phone;

END