作业八

10172100212 顾炤天

第一题答案为：

import java.sql.\*;

public class **Main** {

public static void **main**(String[] args) {

*// write your code here*

try{

Class.**forName**("com.mysql.jdbc.Driver");

}

catch(ClassNotFoundException e){

System.out.**println**("Failed to Load Module");

e.**printStackTrace**();

}

try{

String url = "jdbc:mysql://localhost:3306/bank";

String user = "root";

String pass = "mysql";

Connection connection = DriverManager.**getConnection**(url, user, pass);

System.out.**println**("Connection Success");

String insert="insert into account(AVAIL\_BALANCE,CLOSE\_DATE,LAST\_ACTIVITY\_DATE,OPEN\_DATE,STATUS,CUST\_ID,OPEN\_BRANCH\_ID,OPEN\_EMP\_ID,PRODUCT\_CD) values ('6000.29', null, '2018-01-12', '2015-01-12', '正常', '7', '2', '10', 'CS')";

String update="update account set LAST\_ACTIVITY\_DATE='2021-05-17' where OPEN\_EMP\_ID=10";

String delete="delete from acc\_transaction where AMOUNT=(select minumum from (select min(AMOUNT) as minumum from acc\_transaction) as t1)";

Statement statement=connection.**createStatement**();

statement.**addBatch**(insert);

statement.**addBatch**(update);

statement.**addBatch**(delete);

statement.**executeBatch**();

System.out.**println**("Update Success");

statement.**clearBatch**();

connection.**close**();

}

catch(SQLException e){

System.out.**println**("SQL Error");

e.**printStackTrace**();

}

}

}

第二题答案为：

import java.sql.\*;

public class **Main** {

public static void **main**(String[] args) {

*// write your code here*

try{

Class.**forName**("com.mysql.jdbc.Driver");

}

catch(ClassNotFoundException e){

System.out.**println**("Failed to Load Module");

e.**printStackTrace**();

}

try{

String url = "jdbc:mysql://localhost:3306/bank";

String user = "root";

String pass = "mysql";

Connection connection = DriverManager.**getConnection**(url, user, pass);

System.out.**println**("Connection Success");

String createTable="create table stu(num int auto\_increment,name varchar(50),weigh float(53),birth datetime,primary key(num))";

Statement statement=connection.**createStatement**();

statement.**executeUpdate**(createTable);

String insert="insert into stu(name,weigh,birth) values(?,?,?)";

PreparedStatement preparedStatement=connection.**prepareStatement**(insert);

preparedStatement.**setString**(1,"张玉");

preparedStatement.**setDouble**(2,57.50);

preparedStatement.**setDate**(3,Date.**valueOf**("1994-09-01"));

preparedStatement.**addBatch**();

preparedStatement.**setString**(1,"何亮");

preparedStatement.**setDouble**(2,62.7599);

preparedStatement.**setDate**(3,Date.**valueOf**("1996-02-01"));

preparedStatement.**addBatch**();

preparedStatement.**setString**(1,"张静");

preparedStatement.**setDouble**(2,54.45);

preparedStatement.**setDate**(3,Date.**valueOf**("1999-02-03"));

preparedStatement.**addBatch**();

preparedStatement.**executeBatch**();

System.out.**println**("OK");

preparedStatement.**clearBatch**();

connection.**close**();

}

catch(SQLException e){

System.out.**println**("SQL Error");

e.**printStackTrace**();

}

}

}

第三题答案为：

import java.sql.\*;

public class **Main** {

public static void **main**(String[] args) {

*// write your code here*

try{

Class.**forName**("com.mysql.jdbc.Driver");

}

catch(ClassNotFoundException e){

System.out.**println**("Failed to Load Module");

e.**printStackTrace**();

}

try{

String url = "jdbc:mysql://localhost:3306/bank";

String user = "root";

String pass = "mysql";

Connection connection = DriverManager.**getConnection**(url, user, pass);

System.out.**println**("Connection Success");

String query="select CUST\_ID,PRODUCT\_CD,AVAIL\_BALANCE from account where AVAIL\_BALANCE>5000 order by AVAIL\_BALANCE asc";

Statement statement=connection.**createStatement**();

ResultSet resultSet=statement.**executeQuery**(query);

while(resultSet.**next**()){

String cust\_id=resultSet.**getString**(1);

String product\_cd=resultSet.**getString**(2);

String balance=resultSet.**getString**(3);

System.out.**println**(cust\_id+", "+product\_cd+", "+balance);

}

System.out.**println**("OK");

statement.**close**();

connection.**close**();

}

catch(SQLException e){

System.out.**println**("SQL Error");

e.**printStackTrace**();

}

}

}

第四题答案为：

存储过程代码为

CREATE DEFINER=`root`@`localhost` PROCEDURE `pro\_updateAccount`( )

BEGIN

DECLARE id INT;

DECLARE cid INT;

DECLARE balance DECIMAL(12,4);

DECLARE odate DATETIME;

DECLARE ladate DATETIME;

DECLARE city VARCHAR(20);

DECLARE cur CURSOR FOR

SELECT ACCOUNT\_ID,AVAIL\_BALANCE,OPEN\_DATE,LAST\_ACTIVITY\_DATE,CUST\_ID

FROM account;

DECLARE exit HANDLER FOR NOT FOUND CLOSE cur;

OPEN cur;

REPEAT

FETCH cur INTO id,balance,odate,ladate,cid;

SELECT customer.CITY INTO city

FROM customer

WHERE cid=customer.CUST\_ID;

UPDATE account

SET AVAIL\_BALANCE=CASE

WHEN city="上海市" AND balance>100000 THEN

balance+5000

WHEN city="上海市" AND balance<=100000 THEN

balance+1000

WHEN city="杭州市" AND TIMESTAMPDIFF(**DAY**,odate,ladate)>365 THEN

balance\*1.2

WHEN city="杭州市" AND TIMESTAMPDIFF(**DAY**,odate,ladate)<=365 THEN

balance\*1.1

ELSE

balance

END

WHERE id=account.ACCOUNT\_ID;

UNTIL 0 END REPEAT;

CLOSE cur;

END

Java代码为

import java.sql.\*;

public class **Main** {

public static void **main**(String[] args) {

*// write your code here*

try{

Class.**forName**("com.mysql.jdbc.Driver");

}

catch(ClassNotFoundException e){

System.out.**println**("Failed to Load Module");

e.**printStackTrace**();

}

try{

String url = "jdbc:mysql://localhost:3306/bank";

String user = "root";

String pass = "mysql";

Connection connection = DriverManager.**getConnection**(url, user, pass);

System.out.**println**("Connection Success");

String call="{call pro\_updateAccount()}";

CallableStatement callableStatement=connection.**prepareCall**(call);

callableStatement.**execute**();

System.out.**println**("OK");

connection.**close**();

}

catch(SQLException e){

System.out.**println**("SQL Error");

e.**printStackTrace**();

}

}

}

第五题答案为：

函数代码为

CREATE DEFINER=`root`@`localhost` FUNCTION `func\_getHistoryID`(txn\_data DATETIME, txn\_type VARCHAR(10)) RETURNS bigint

BEGIN

#Routine body goes here...

DECLARE id BIGINT;

SELECT TXN\_ID INTO id

FROM

(

SELECT \*

FROM acc\_transaction

WHERE acc\_transaction.TXN\_DATE>txn\_data AND acc\_transaction.TXN\_TYPE\_CD=txn\_type

ORDER BY ACCOUNT\_ID ASC

LIMIT 1

) AS t;

RETURN id;

END

Java代码为

import java.sql.\*;

public class **Main** {

public static void **main**(String[] args) {

*// write your code here*

try{

Class.**forName**("com.mysql.jdbc.Driver");

}

catch(ClassNotFoundException e){

System.out.**println**("Failed to Load Module");

e.**printStackTrace**();

}

try{

String url = "jdbc:mysql://localhost:3306/bank";

String user = "root";

String pass = "mysql";

Connection connection = DriverManager.**getConnection**(url, user, pass);

System.out.**println**("Connection Success");

String call="{? = CALL func\_getHistoryID(?,?)}";

CallableStatement callableStatement=connection.**prepareCall**(call);

callableStatement.**registerOutParameter**(1,Types.BIGINT);

callableStatement.**setDate**(2,Date.**valueOf**("2015-01-01"));

callableStatement.**setString**(3,"CD");

callableStatement.**execute**();

String result=callableStatement.**getString**(1);

System.out.**println**("The result is "+result+".");

System.out.**println**("OK");

callableStatement.**close**();

connection.**close**();

}

catch(SQLException e){

System.out.**println**("SQL Error");

e.**printStackTrace**();

}

}

}