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| **实验报告** | | | | | | 次数 |  |
| 实验项目名称 | **自定义函数及存储过程应用** | | 姓名 | KAFLE SAMRAT | 日期 | 2021-06-09 | |
| 教师评语 |  | | | | | | |
| 实验成绩： | | 指导教师（签字）： 年 月 日 | | | | | |
| 1. 实验目的与要求   （1）掌握T-SQL的变量定义及基本控制语句的使用；  （2）掌握自定义函数、存储过程的定义及使用方法。   1. 实验内容   使用T-SQL语句，对向实验一中建立的数据库YGGL的三个表Employees、Department和Salary三个表进行自定义函数、存储过程的创建和调用。  （1）定义一个函数实现如下功能：对于一个给定的DepartmentID值，查询该值在Departments表中是否存在，若存在则返回0，不存在返回-1。并写一段T-SQL程序调用此函数。  （2）创建存储过程，要求当一个员工的工作年份大于6年时，将其转到经理办公室工作。并执行此存储过程。  （3）创建存储过程，若员工的学历为硕士或博士，将其收入增加1000元。并执行此存储过程。   1. 实验内容和结果   (1) Define a function that queries whether a given Departmentid value exists in the Departments table and returns 0 if it does, or -1 if it does not. And write a T-SQL program to call this function.  USE YGGL;  GO  CREATE FUNCTION CHECK\_ID(@departmentid char(3)) RETURNS integer AS BEGIN  DECLARE @num int  IF EXISTS(SELECT departmentID FROM departments WHERE @departmentid=departmentID)  SELECT @num=0 ELSE  SELECT @num=-1 RETURN @num END ;    (2) Create a stored procedure that requires an employee to be transferred to the manager's office when his/her working years are greater than 6 years. And execute the stored procedure.  *NOTE: Department ‘manager's office’ is replaced with ‘AI’;*    USE YGGL;  GO  CREATE PROCEDURE CHANGE\_DN @EM\_ID CHAR(6) OUTPUT  AS BEGIN  DECLARE @WY TINYINT  DECLARE @BEFOREDEPARTMENTID CHAR(20)  DECLARE @DEPNAMEID CHAR(3)  SELECT @WY = WORKYEAR FROM Employees WHERE EMPLOYEEID = @EM\_ID  SELECT @BEFOREDEPARTMENTID = DEPARTMENTID FROM DEPARTMENTS WHERE DEPARTMENTID = (SELECT DEPARTMENTID FROM Employees WHERE EMPLOYEEID = @EM\_ID)  SELECT @DEPNAMEID = DEPARTMENTID FROM DEPARTMENTS WHERE DEPARTMENTNAME = 'AI'  IF (@WY > 6) AND (@BEFOREDEPARTMENTID!=@DEPNAMEID)  UPDATE Employees  SET DEPARTMENTID = @DEPNAMEID  WHERE EMPLOYEEID = @EM\_ID  END  (3) Create a stored procedure. If the employee has a master's degree or a doctor's degree, increase his/her income by 1000 yuan. And execute the stored procedure.    For doctor degree:  DECLARE @EDU CHAR(4)  SET @EDU = 'DOCTORAL'  EXEC ADDINCOME @EDU  For masters degree:  DECLARE @EDU CHAR(4)  SET @EDU = 'master'  EXEC ADDINCOME @EDU | | | | | | | |
| 实验总结及体会：  Through this experiment, I have a more familiar understanding of TSOL command and a more profound understanding of T-SQL logic. All in all, the gain was great. | | | | | | | |