--- 13 лаба

---1 задание

GO

CREATE function COUNT\_STUDENTS(@faculty varchar(20) = null, @prof varchar(20) = null) returns int AS

BEGIN

RETURN (

SELECT count(IDSTUDENT)

FROM GROUPS

JOIN FACULTY ON GROUPS.FACULTY = FACULTY.FACULTY

JOIN STUDENT ON STUDENT.IDGROUP = GROUPS.IDGROUP AND GROUPS.PROFESSION = @prof

WHERE GROUPS.FACULTY = @faculty

);

END

GO

DECLARE @facult varchar(10) = 'ИТ';

DECLARE @profession varchar(10) = '1-40 01 02';

PRINT 'Количество студентов факультета [' + @facult

+ '] с профессией номер ['+ @profession + ']: '

+ cast(dbo.COUNT\_STUDENTS(@facult, @profession) as varchar(5));

--- 2 задание

GO

CREATE function FSUBJECTS(@pulpit varchar(20)) returns varchar(300) AS

BEGIN

DECLARE @subject varchar(10), @subjects varchar(300) = 'Дисциплины: ';

DECLARE subj\_cursor CURSOR STATIC LOCAL FOR

SELECT SUBJECT\_T.SUBJECT\_T

FROM SUBJECT\_T

WHERE SUBJECT\_T.PULPIT = @pulpit;

OPEN subj\_cursor;

fetch subj\_cursor into @subject;

while @@fetch\_status = 0

begin

set @subjects = @subjects + rtrim(@subject) + ', ';

FETCH subj\_cursor into @subject;

end;

CLOSE subj\_cursor;

RETURN @subjects;

END

GO

SELECT PULPIT.PULPIT, dbo.FSUBJECTS(PULPIT) [SUBJECTS] FROM PULPIT;

--- 3 задание

GO

CREATE function FFACPUL(@faculty varchar(20), @pulpit varchar(20)) returns table AS

RETURN

SELECT FACULTY.FACULTY,PULPIT.PULPIT

FROM FACULTY

LEFT OUTER JOIN PULPIT ON FACULTY.FACULTY = PULPIT.FACULTY

WHERE FACULTY.FACULTY = isnull(@faculty, FACULTY.FACULTY) AND

PULPIT.PULPIT = isnull(@pulpit, PULPIT.PULPIT);

GO

select \* from dbo.FFACPUL(NULL,NULL);

select \* from dbo.FFACPUL('ТТЛП',NULL);

select \* from dbo.FFACPUL(NULL,'ИСиТ');

select \* from dbo.FFACPUL('ТТЛП','ТДП');

select \* from dbo.FFACPUL('ЛХ','ПИ');

--- 4 задание

GO

CREATE function FTEACHER (@pulpit varchar(20)) returns int AS

BEGIN

DECLARE @result int = 0;

SET @result = (

SELECT count(\*)

FROM TEACHER

JOIN PULPIT ON TEACHER.PULPIT = PULPIT.PULPIT

WHERE PULPIT.PULPIT = isnull(@pulpit, PULPIT.PULPIT)

);

RETURN @result;

END;

GO

select PULPIT, dbo.FTEACHER(PULPIT.PULPIT) 'Количество преподавателей' from PULPIT;

select dbo.FTEACHER(NULL) 'Всего преподавателей';

--- 6 задание

go

CREATE function COUNT\_PULPIT(@faculty varchar(20)) returns int AS

begin

return (

SELECT count(PULPIT)

FROM PULPIT

WHERE FACULTY = @faculty

);

end;

go

CREATE function COUNT\_GROUP(@faculty varchar(20)) returns int AS

begin

return (

SELECT count(IDGROUP)

FROM GROUPS

WHERE FACULTY = @faculty

);

end;

go

CREATE function COUNT\_PROFESSION(@faculty varchar(20)) returns int AS

begin

return (

SELECT count(PROFESSION)

FROM PROFESSION

WHERE FACULTY = @faculty

);

end;

go

CREATE function COUNT\_STUD(@faculty varchar(20) = null, @prof varchar(20) = null) returns int AS

BEGIN

RETURN (

SELECT count(IDSTUDENT)

FROM GROUPS

JOIN FACULTY ON GROUPS.FACULTY = FACULTY.FACULTY

JOIN STUDENT ON STUDENT.IDGROUP = GROUPS.IDGROUP AND GROUPS.PROFESSION = ISNULL(@prof, GROUPS.PROFESSION)

WHERE GROUPS.FACULTY = @faculty

);

END

go

CREATE function FACULTY\_REPORT(@c int) returns @fr table(

[Факультет] varchar(50), [Количество кафедр] int, [Количество групп] int,

[Количество студентов] int, [Количество специальностей] int

) AS

begin

declare cc CURSOR static for select FACULTY.FACULTY from FACULTY where dbo.COUNT\_STUD(FACULTY, NULL) > @c;

declare @f varchar(30);

open cc;

fetch cc into @f;

while @@fetch\_status = 0

begin

insert @fr values(@f, dbo.COUNT\_PULPIT(@f),

dbo.COUNT\_GROUP(@f), dbo.COUNT\_STUD(@f, NULL),

dbo.COUNT\_PROFESSION(@f));

fetch cc into @f;

end;

return;

end;

go

SELECT \* from dbo.FACULTY\_REPORT(0);

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