



DATABASE SYSTEM LABS

– ADVANCED SQL: FUNCTION

李旭东

LEEXUDONG@NANKAI.EDU.CN

NANKAI UNIVERSITY

OBJECTIVES

- Stored Function In SQL

drop function if exists precourse_cnt_f;

DELIMITER \$\$

create function precourse_cnt_f(acourseid varchar(8))

returns integer

deterministic

reads sql data

begin

declare cnt integer;

select count(*) into cnt from prereq where course_id=acourseid;

return cnt;

end**\$\$**

©LXD DELIMITER ;

CALL FUNCTION

- In mysql workbench

```
set @course_id='958';
```

```
select precourse_cnt_f(@course_id) into @cnt;
```

```
select @cnt;
```


CALL FUNCTION

- In sql functions and procedures
declare course_id varchar(10);
select '958' into course_id;
select precourse_cnt_f(course_id);

CALL FUNCTION IN PYTHON3

```
import pymysql

conn = pymysql.connect(host='localhost',
user='mydbuser',password='iammydbuser',database='dblabtest',charset='utf8')

cursor = conn.cursor()

alnCourse_id = '958'

cursor.execute('select precourse_cnt_f(%s)', (alnCourse_id))

retdata = cursor.fetchall()

cnt=0

for row in retdata:

    cnt=cnt+1

    print("%s" %(row[0]))

cursor.close()

conn.close()
```

RETURNS IN FUNCTION

- RETURNS {STRING|INTEGER|REAL|DECIMAL}
- Function does not support returns a dataset (i.e. table)



THANKS !

leexudong@nankai.edu.cn