### **QUESTION ONE**

```
DELIMITER & CREATE PROCEDURE init(IN p INT(11)) BEGIN
```

DECLARE column\_count INT; SELECT COUNT(\*) INTO column\_count FROM INFORMATION\_SCHEMA.COLUMNS WHERE table\_schema = 'stu\_tlap632\_COMPSCI\_351\_C\_S1\_2020' AND table\_name = 'PROJECT';

IF column\_count < 5 THEN
 ALTER TABLE PROJECT ADD COLUMN Hours FLOAT;

UPDATE PROJECT
SET Hours = 0.0
WHERE Pnumber = p;

UPDATE PROJECT
SET Hours = 0.0
WHERE Pnumber = p;

END IF;

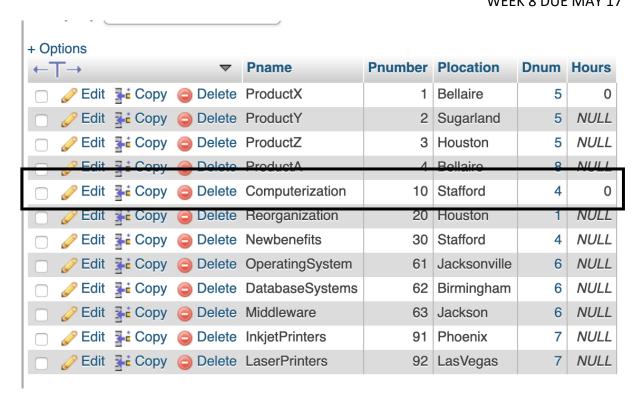
**ELSE** 

END &

call init(1);

+ Options												
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call init(10); [AFTER 'Hours' IS ADDED INTO 'PROJECT']



#### **QUESTION TWO**

DELIMITER & CREATE PROCEDURE stat() BEGIN

DECLARE p INT;
DECLARE pmin INT;
DECLARE pmax INT;
DECLARE total\_hours FLOAT;

SET pmin = (SELECT MIN(Pnumber) FROM PROJECT); -- smallest project number SET pmax = (SELECT MAX(Pnumber) FROM PROJECT); -- largest project number SET p = pmin; -- starting number

WHILE p <= pmax DO

-- if p is in PROJECT (doesn't necessarily mean p is worked on)

IF p IN (SELECT Pnumber FROM PROJECT WHERE EXISTS (SELECT \* FROM PROJECT)) THEN

### -- if there are people working on it

IF p IN (SELECT Pnumber FROM PROJECT WHERE EXISTS (SELECT \* FROM WORKS\_ON WHERE Pnumber=Pno)) THEN

SELECT SUM(w. Hours) INTO total, hours EROM PROJECT p.

SELECT SUM(w.Hours) INTO total\_hours FROM PROJECT p
INNER JOIN WORKS\_ON w ON p.Pnumber = w.Pno WHERE p.Pnumber = p;

UPDATE PROJECT
SET Hours = total\_hours
WHERE Pnumber = p;

SET 
$$p = p + 1$$
;

# -- if p exists but no one's working on it

ELSE

UPDATE PROJECT SET Hours = 0.0 WHERE Pnumber = p;

SET p = p + 1;

END IF;

# **ELSE** -- if p isn't in PROJECT

SET p = p + 1;

END IF; END WHILE;

## END

## + Options

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