



## Common Table Expression(CTE), CSE311.3

2 messages

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Sat, Jun 8, 2024 at 1:43 PM

To: "Abu Sayed Md. Latiful Hoque" <abu.hoque@northsouth.edu>

Assalamualaikum Sir

I have faced difficulties for this particular problem from the sample question,

**Q. 3: Given the parents of students schema as follows:**

**Student\_parents(F-NID, M-NID, S-id, F-name, M-name, street, city, annual-income)**

**Write a function named s-p-income-status that will take S-id type integer as input and return the status of the income as follows:**

**If annual-income is less than or equal to 2,50,000, the status is 'Poor'. If annual-income is less than or equal to 30,00,000 and greater than 2,50,000, the status is 'Middle Class'. Others are 'Rich'.**

**Write SQL statement to find S-id, F-name and income status of all students of Dhaka city.**

**Answer :**

```
create function s-p-income-status(id int)
returns varchar(20)
begin
declare a_income int;
declare status varchar(20);
select annual_income into a_income
from Student_parents
where s-id = id;
if
    a_income < 25000 then
    set status = 'Poor';
elseif
    a_income < 3000000 then
    set status = 'Middle Class';
else
    set status = 'Rich';
end if;
return status;
end;
```

**Query ->**

```
select S-id,F-name,s-p-income-status(S-id) as income_status
from Student_parents
where city = 'Dhaka';
```

However, the problem is that, a parents can have multiple child and it will give multiple result for a particular F-name, so can I use COMMON TABLE EXPRESSION(CTE) to grouping all the children in a row like this (since I can't use GROUP BY because I'm not using any AGGREGATE function) :

Query->

```
with StIncomeStat as (  
select S-id,F-name,s-p-income(S-id) AS income_status  
from Student_parents  
where city = 'Dhaka'  
)  
select S-id,F-name,income-status  
from StIncomeStat;
```

TIA  
Regards  
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Sat, Jun 8, 2024 at 4:28 PM

Walaikum Salam.

The solution is OK. S-id is unique, so it will generate the correct result. For multiple children in the same university, parents income should be same and it can be maintained by implementing database constraints. But your solution is correct and will run correctly.

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