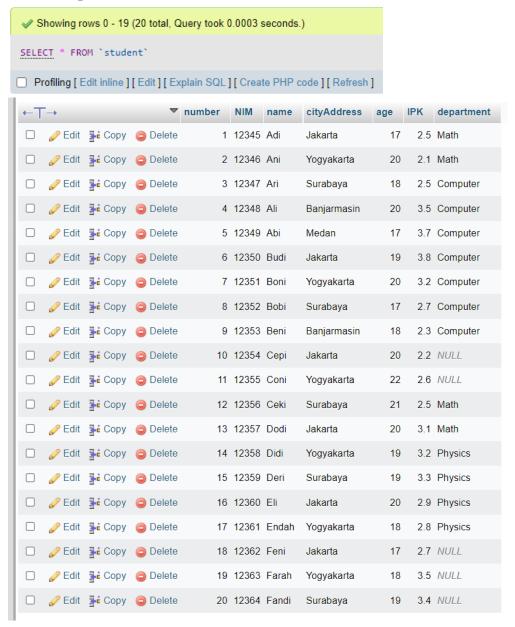
Name : Ramzy Izza Wardhana NIM : 21/472698/PA/20322 Class : IUP CS B – Database Lab

## Assignment 5 - Data Manipulation Languages 3

## A. Create database with the following student table data:

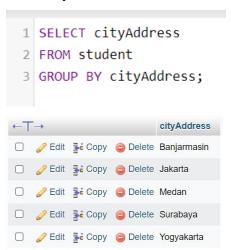
On the previous assignment, we have already created the database named *student*. Thus, we can reuse it to manipulate the data and answer the questions below.

## **Table Output:**



## b. Create SQL query for:

1. Show city address column without any duplicate



Other than using SELECT DISTINCT, we also can use GROUP BY since this query will group multiple data into one distinct value.

2. Show maximum ipk from student from Jakarta

```
1 SELECT MAX(IPK) 'Highest GPA', cityAddress 'City Address'
2 FROM student
3 GROUP BY cityAddress
4 HAVING cityAddress = 'Jakarta';

P Highest GPA City Address
3.8 Jakarta
```

3. Show minimum ipk from Computer department student

```
1 SELECT MIN(IPK) 'Lowest GPA', department 'Department'
2 FROM student
3 GROUP BY department
4 HAVING department = "Computer";

** Lowest GPA Department
e 2.3 Computer
```

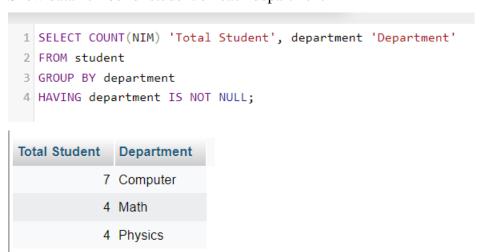
4. Show number of students in Computer department

```
1 SELECT COUNT(*) 'Total Students'
2 FROM student
3 GROUP BY department
4 HAVING department = 'Computer';

Total Students
7
```

5. Show average ipk from math department student

6. Show data number of student on each department



We omit null value since there is no such department named NULL.

7. Show data number of student from different city

```
SELECT COUNT(*) 'Total Students', cityAddress 'City'
FROM student
GROUP BY cityAddress;

Total Students

City

2 Banjarmasin
6 Jakarta
1 Medan
5 Surabaya
6 Yogyakarta
```

8. Show data number of student group by city address with age under 20 years

