**Data Testing Assessment**

A school 'Study & Play' has different branches in India. Students appeared in 10th & 12th board have scored good marks in different subjects. 'Study & Play' wants to recognize teachers across different streams to award them for their student's performance.

'Student & Play' are looking for a data warehouse solution to do analysis on student performance in a particular branch or subject.

**Exercise -**

As a part of this exercise, use the below Student data to import in database table.

Sample Data –

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student Name | StudentRollNo | Class | Age | Father's Name |
| AJAY KUMAR | IETLINF01 | X | 16 | PREM KUMAR |
| RAJAT MISHRA | IETLINF02 | XI | 17 | PANKAJ MISHRA |
| SUDHEER SHARMA | IETLINF03 | IX | 15 | SUNDER SHARMA |
| NANCY KAUR | IETLINF04 | XII | 18 | AK SINGH |
| SUMITA SHARMA | IETLINF05 | IV | 14 | AJAY SHARMA |
| NANDINI GUPTA | IETLINF06 | VII | 18 | RAM GUPTA |
| RAM KUMAR | IETLINF07 | X | 16 | RAMAN KUMAR |

Tasks

1. Create above table in database and insert the data.
2. Write sql query to find out total number of students in each class.
3. Write sql query to find out average age of students in each class.
4. Write sql query to find out the number of students having same roll no.
5. Write sql query to view the duplicate name of a student from the table.

Assignment:

Logged in <https://livesql.oracle.com/>

Graphical user interface, text, application, email

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1. Create above table in database and insert the data.

Created the below Student table:

CREATE TABLE STUDENT

(

STU\_ROLLNO NVARCHAR2(9) PRIMARY KEY,

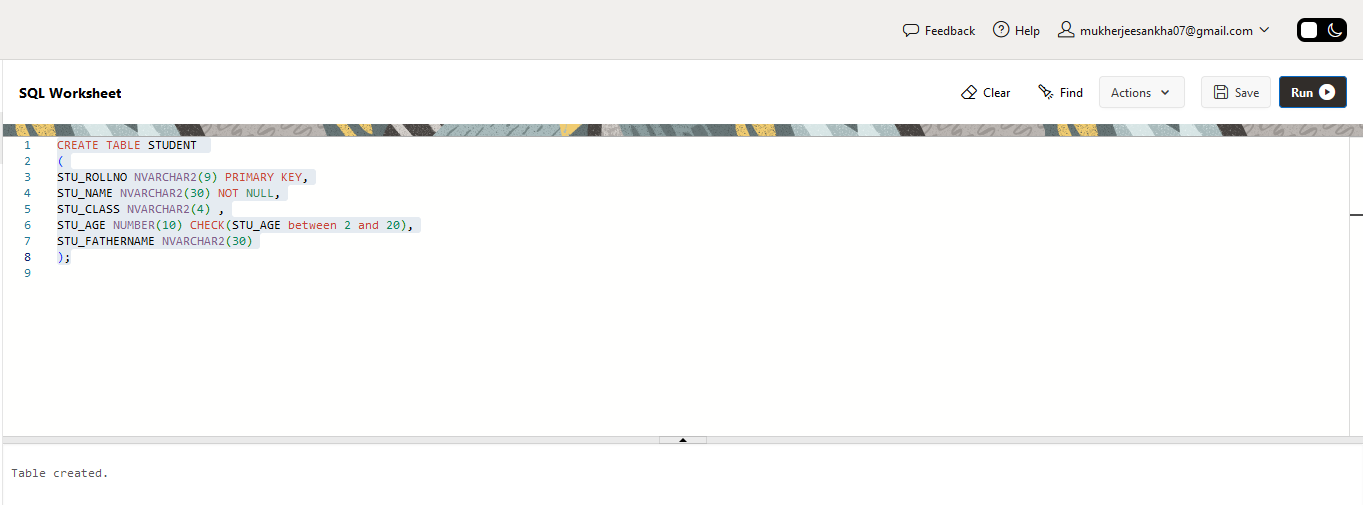
STU\_NAME NVARCHAR2(30) NOT NULL,

STU\_CLASS NVARCHAR2(4) ,

STU\_AGE NUMBER(10) CHECK(STU\_AGE between 2 and 20),

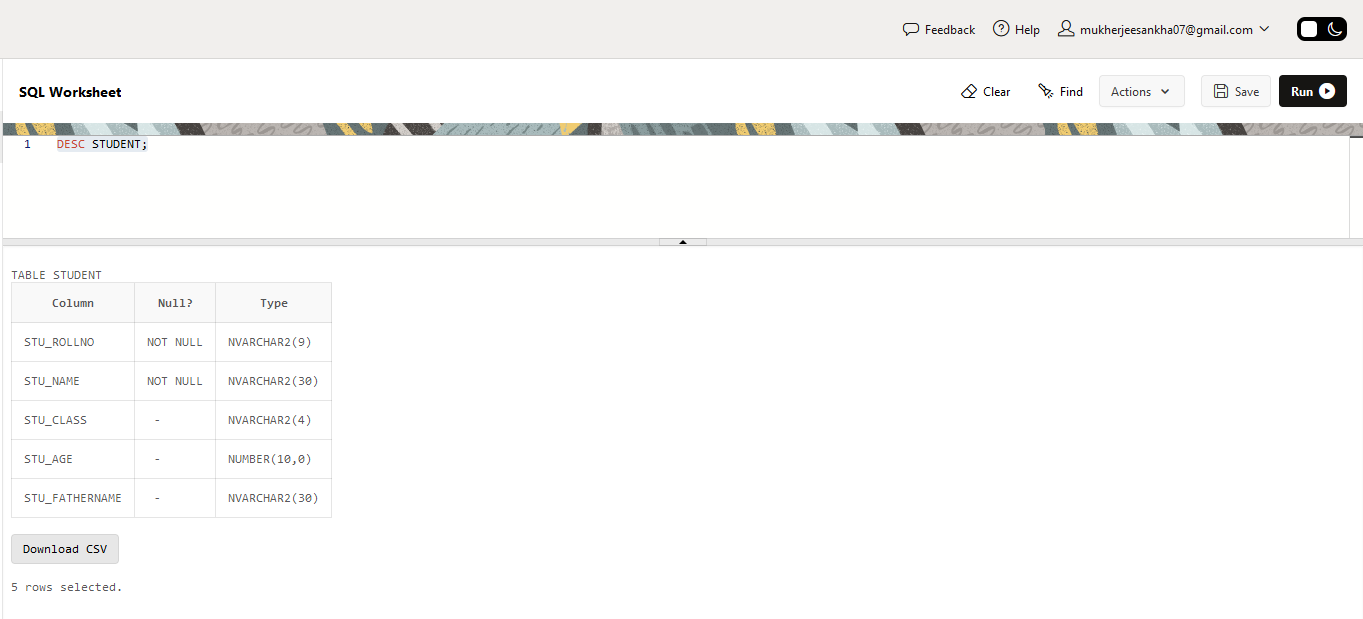
STU\_FATHERNAME NVARCHAR2(30)

);



Check the table structure:

DESC STUDENT;



Insert the below values in STUDENT table:

INSERT INTO STUDENT VALUES (‘IETLINF01’,’AJAY KUMAR’,’X’,16,’PREM KUMAR’);

INSERT INTO STUDENT VALUES (‘IETLINF02’,’RAJAT MISHRA’,’XI’,17,’PANKAJ MISHRA’);

INSERT INTO STUDENT VALUES (‘IETLINF03’,’SUDHEER SHARMA’,’IX’,15,’SUNDER SHARMA’);

INSERT INTO STUDENT VALUES (‘IETLINF04’,’NANCY KAUR’,’XII’,18,’AK SINGH’);

INSERT INTO STUDENT VALUES (‘IETLINF05’,’SUMITA SHARMA’,’IV’,14,’AJAY SHARMA’);

INSERT INTO STUDENT VALUES (‘IETLINF06’,’NANDINI GUPTA’,’VII’,18,’RAM GUPTA’);

INSERT INTO STUDENT VALUES (‘IETLINF07’,’RAM KUMAR’,’X’,16,’RAMAN KUMAR’);



Show all Student data:

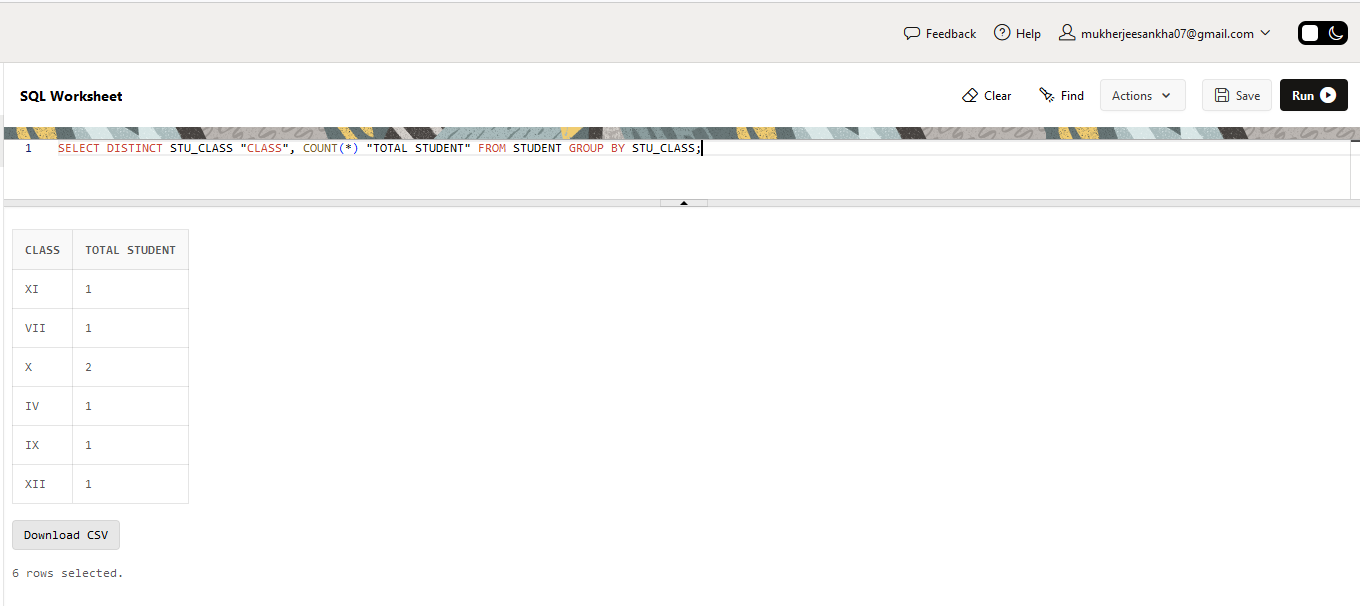
SELECT \* FROM STUDENT;

Graphical user interface, text, application

Description automatically generated

1. Write sql query to find out total number of students in each class.

SELECT DISTINCT STU\_CLASS "CLASS", COUNT(\*) "TOTAL STUDENT" FROM STUDENT GROUP BY STU\_CLASS;



1. Write sql query to find out average age of students in each class.

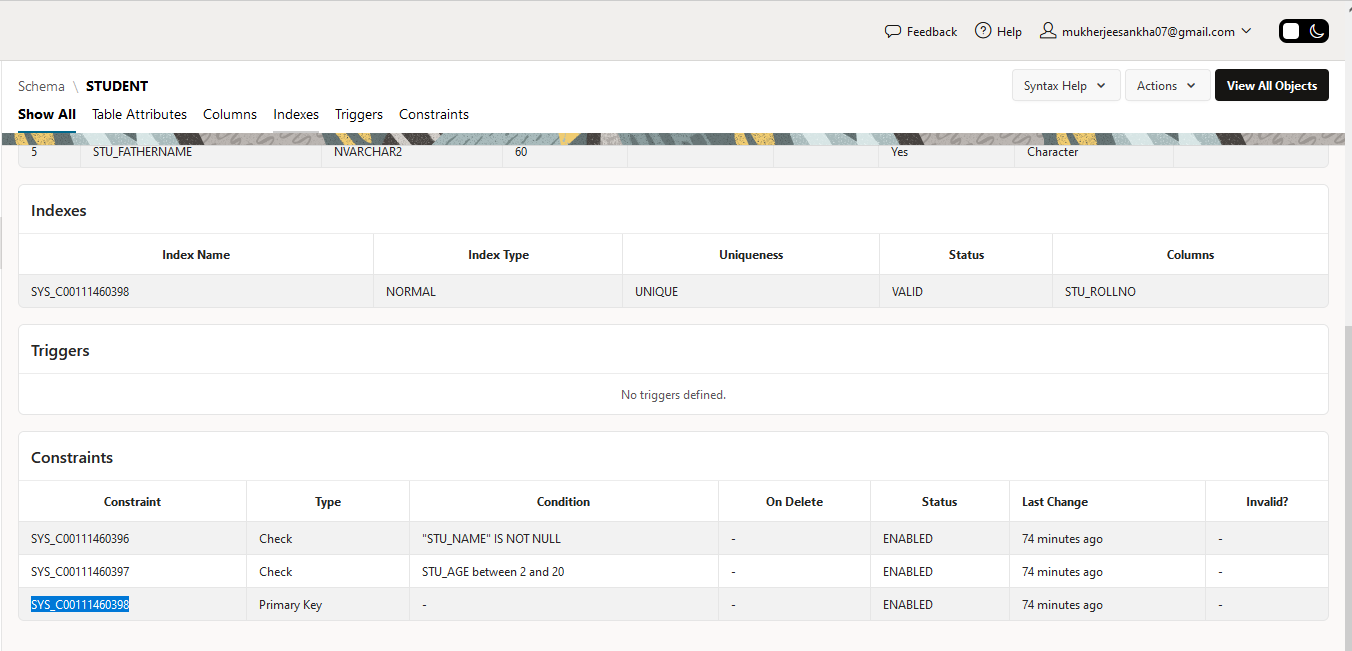
SELECT DISTINCT STU\_CLASS "CLASS", AVG(STU\_AGE) "AVERAGE AGE" FROM STUDENT GROUP BY STU\_CLASS;

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1. Write sql query to find out the number of students having same roll no.

For running the above query, the Primary Key constraint has to be removed from STUDENT table.



ALTER TABLE STUDENT DROP CONSTRAINT SYS\_C00111460398;

Graphical user interface, text, application

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Added the NOT NULL Constraint to STU\_ROLLNO.

ALTER TABLE STUDENT MODIFY STU\_ROLLNO NOT NULL;

A picture containing text

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Inserted a duplicate Roll No ‘IETLINF04’ to get result of duplicate search query:

INSERT INTO STUDENT VALUES (‘IETLINF04’,’RITA SEN’,’X’,16,’PALLAB SEN’);

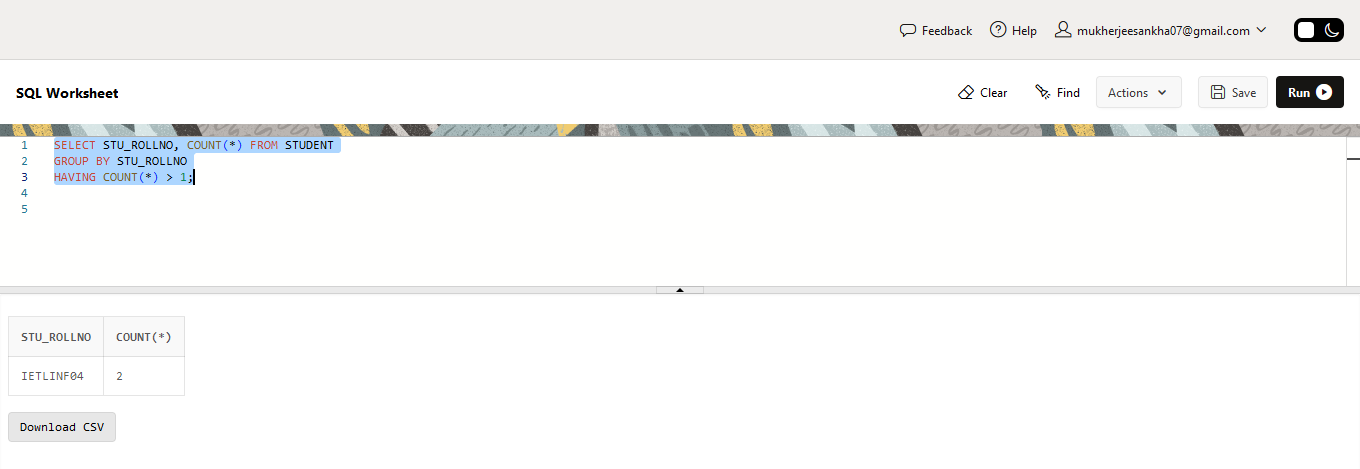
Whiteboard

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SELECT STU\_ROLLNO, COUNT(\*) FROM STUDENT

GROUP BY STU\_ROLLNO

HAVING COUNT(\*) > 1;



1. Write sql query to view the duplicate name of a student from the table.

To get the above result, a duplicate student name is inserted into the table.

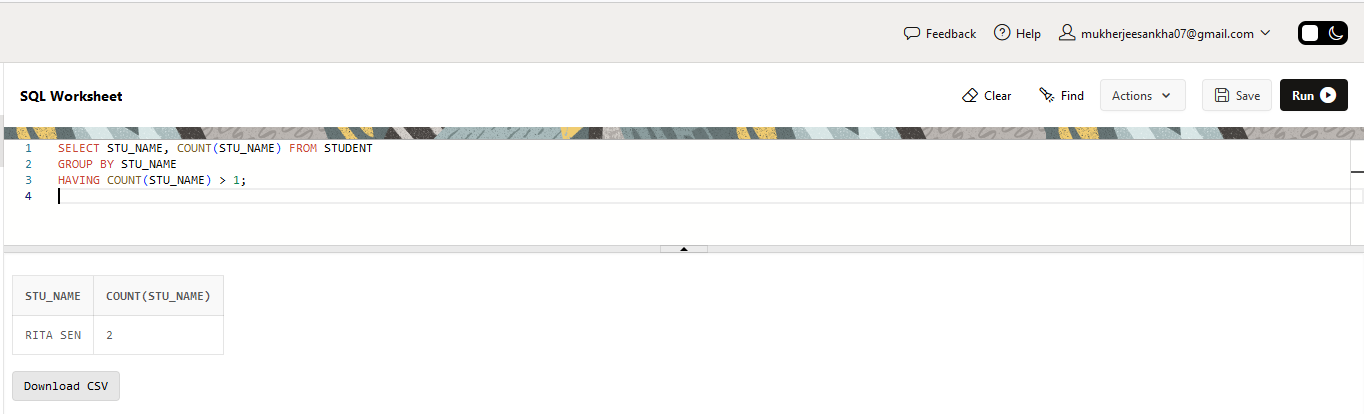
INSERT INTO STUDENT VALUES (‘IETLINF08’,’RITA SEN’,’VIII’,14,’ARNAB SEN’);



SELECT STU\_NAME, COUNT(STU\_NAME) FROM STUDENT

GROUP BY STU\_NAME

HAVING COUNT(STU\_NAME) > 1;



\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* END \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*