**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.

**SOLUTION:**

/\* 1-Create above table in database and insert the data\*/

create table STUDENT

(

StudentName VARCHAR2(50) NOT NULL,

StudentRollNo VARCHAR2(10) CONSTRAINT RollNo\_PKey PRIMARY KEY,

StudentClass VARCHAR2(5) NOT NULL,

StudentAge NUMBER(5) NOT NULL,

StudentFatherName VARCHAR2(50)

);

/\* describe table\*/

DESC STUDENT;

/\*get all data from table\*/

SELECT \* FROM STUDENT;

/\* insert data into table\*/

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

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

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

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

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

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

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

/\*get all data from table\*/

SELECT \* FROM STUDENT;

/\* 2-Write sql query to find out total number of students in each class\*/

SELECT StudentClass, COUNT(StudentRollNo) AS Total\_Count FROM STUDENT GROUP BY StudentClass;

/\* 3-Write sql query to find out average age of students in each class\*/

SELECT StudentClass, AVG(StudentAge) AS AVG\_AGE FROM STUDENT GROUP BY StudentClass ORDER BY StudentClass DESC;

/\* 4-Write sql query to find out the number of students having same roll no.\*/

SELECT COUNT(StudentRollNo) AS Total\_Count FROM STUDENT GROUP BY StudentRollNo HAVING COUNT(StudentRollNo)>1;

/\* 5-Write sql query to view the duplicate name of a student from the table\*/

SELECT StudentName FROM STUDENT GROUP BY StudentName HAVING COUNT(StudentName)>1;

/\* Insert data with roll no\*/

INSERT INTO STUDENT VALUES('VEENA','IETLINF01','X',17,'VIJAY');

/\* additional data is inserted with same student name\*/

INSERT INTO STUDENT VALUES('VEENA','IETLINF08','X',17,'VIJAY');

INSERT INTO STUDENT VALUES('VEENA','IETLINF09','VII',15,'KUMAR');

/\*get all data from table\*/

SELECT \* FROM STUDENT;

/\*run queries again\*/

SELECT StudentClass, COUNT(StudentRollNo) AS Total\_Count FROM STUDENT GROUP BY StudentClass;

SELECT StudentClass, AVG(StudentAge) AS AVG\_AGE FROM STUDENT GROUP BY StudentClass ORDER BY StudentClass DESC;

SELECT StudentName FROM STUDENT GROUP BY StudentName HAVING COUNT(StudentName)>1;

SELECT StudentName,COUNT(StudentName) AS NO\_OF\_OCCURENCE FROM STUDENT GROUP BY StudentName HAVING COUNT(StudentName)>1;















