**PRACTICAL – 03**

**Aim :** Implementation of queries using Aggregate Function and demonstrate the use of Group By clause on underlying tables in the database.

**Problem Definition**

* Create table using DDL Script

Products (product\_id Integer, product\_type\_id Integer, Name Varchar2(30), Price Integer)

*Note: product\_id is Primary Key*

* Insert following 09 tupules using DML scripts
* insert into products values (1,1,'Simple TV',1000.00);
* insert into products values (2,1,'LED TV',1500.00);
* insert into products values (3,1,'LCD TV',2000.00);
* insert into products values (4,2,'Mobile Phone',1000.00);
* insert into products values (5,2,'Smart Phone',2000.00);
* insert into products values (6,2,'Jio Phone',3000.00);
* insert into products values (7,3,'Simple WM',1500.00);
* insert into products values (8,3,'Automated WM',2000.00);
* insert into products values (9,3,'Semi WM',2500.00);

**Tasks-01:**

1. Count the number of products
2. Count the number of products and sum of price of products
3. Count the number of products\_type\_id
4. Count the number of distinct products\_type\_id
5. Calculate the average price of the product
6. Calculate the average price of the distinct product
7. Calculate maximum and minimum price of the product
8. Find the count of number of ROWID
9. Find maximum and minimum product name
10. Calculate standard deviation of price
11. Calculate variance of price
12. Calculate average price group by product\_type\_id
13. Calculate Variance on price group by product\_type\_id
14. Calculate Variance on price group by product\_type\_id order by Variance
15. Calculate average price group by product\_type\_id and having average price greater than 1500.
16. Calculate average price of the products whose price is less that Rs.2000 and group by product\_type\_id and having average price greater than 1500.

**Task-02: Execute the following Aggregate and Group By queries on Employee Table of**

**Scott username**

1. Find the highest sal of EMP table
2. Find details of highest paid employee.
3. Find the highest paid employee of sales department
4. Find the total sal given to the MGR
5. Find the total annual sal to distribute job wise in the year 81.
6. Display the average salaries of all the clerks.
7. List the employeein dept 20 whose sal is >the average sal 0f dept 10 emps
8. Display the number of employee for each job group deptno wise
9. List the manage rno and the number of employees working for those mgrs in the ascending Mgrno.
10. List departmentwise employee count
11. List the department, details where at least two emps are working
12. List the names of the emps who are getting the highest sal dept wise.
13. List the emps whose sal is greater than or equal to the average of max and minimum
14. List the no. of emps in each department where the no. is more than 3.
15. Find out how may Managers are their in the company.
16. Check whether all the emps numbers are indeed unique
17. Find all the emps who earn the minimum Salary for each job wise in ascending order.
18. Find out all the emps who earn highest salary in each job type. Sort in descending salary order.
19. List the Deptno where there are no emps.
20. List the No.of emp’s and Avg salary within each department for each job.
21. Find the maximum average salary drawn for each job except for ‘President’.
22. List the highest paid emp.
23. List the details of most recently hired emp of dept 30.
24. Find the count of employee, average salary and sum of the salary
25. Find the count of employee, average salary and sum of the salary and group by department number wise in the ascending order
26. Find the count of employee, average salary and sum of the salary and group by department number wise and job wise and in the ascending order of dept number and Job.

**TASK-03 : Use HR schema to solve the following queries**

1. Create a report that produces the following for each employee: earns monthly but wants . Label the column Dream Salaries.
2. Display each employee’s last name, hire date, and salary review date, which is the first Monday after six months of service. Label the column REVIEW. Format the dates to appear in the format similar to “Monday, the Thirty-First of July, 2000.”
3. Display the last name, hire date, and day of the week on which the employee started. Label the column DAY. Order the results by the day of the week, starting with Monday
4. Create a query that displays the employees’ last names and commission amounts. If an employee does not earn commission, show “No Commission.” Label the column COMM.
5. Using the DECODE function, write a query that displays the grade of all employees based on the value of the column JOB\_ID, using the following data:

Job Grade

AD\_PRES A

ST\_MAN B

IT\_PROG C

SA\_REP D

ST\_CLERK E

None of the above 0

1. Rewrite the above query using the CASE statement.