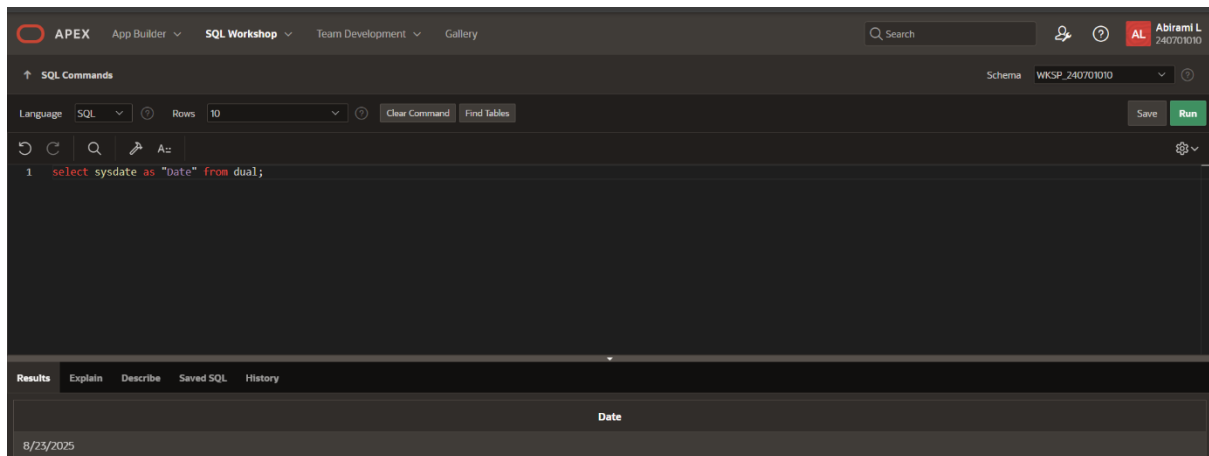


Exercise 6- Single Row Functions

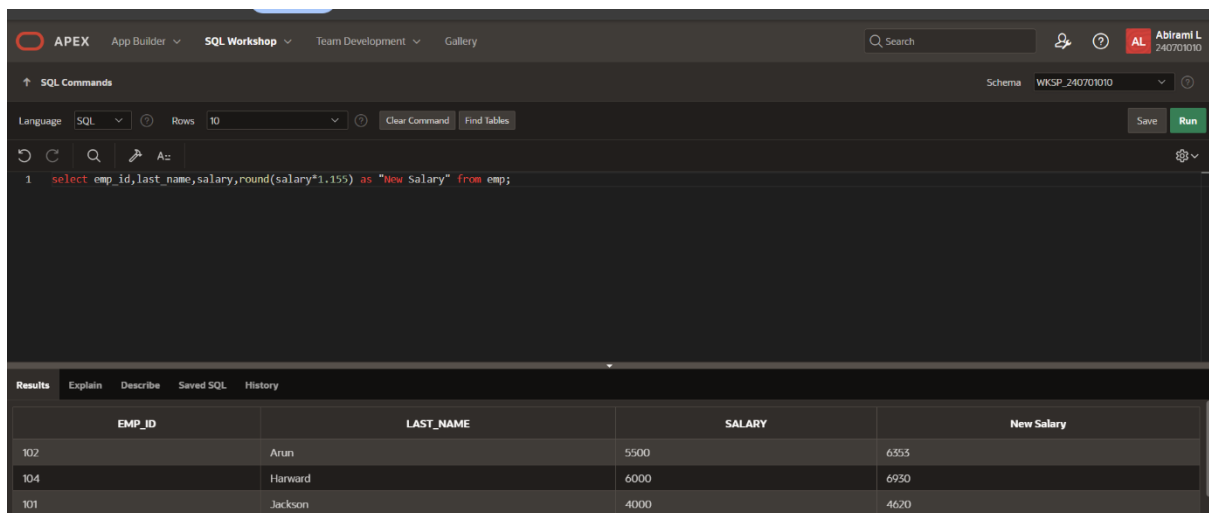
1. Write a query to display the current date. Label the column Date.



The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the query: `1 select sysdate as "Date" from dual;`. The Results pane shows a single row with the column header "Date" and the value "8/23/2025".

Date
8/23/2025

2. The HR department needs a report to display the employee number, last name, salary, and increased by 15.5% (expressed as a whole number) for each employee. Label the column new salary.



The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the query: `1 select emp_id,last_name,salary,round(salary*1.155) as "New Salary" from emp;`. The Results pane shows a table with four columns: EMP_ID, LAST_NAME, SALARY, and New Salary. The data rows are:

EMP_ID	LAST_NAME	SALARY	New Salary
102	Arun	5500	6353
104	Harward	6000	6930
101	Jackson	4000	4620

3. Modify your query to add a column that subtracts the old salary from the new salary. Label the column "Increase".

APEX App Builder SQL Workshop Team Development Gallery

SQL Commands Schema WKSP_240701010

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 select emp_id,last_name,salary,round(salary*1.155) as "New Salary",round(salary*1.155)-salary as "Increase" from emp;
```

Results Explain Describe Saved SQL History

EMP_ID	LAST_NAME	SALARY	New Salary	Increase
102	Arun	5500	6353	853
104	Harward	6000	6930	930
101	Jackson	4000	4620	620

- Write a query that displays the last name (With the first letter uppercase and all other letters lowercase) and the length of the last name for all employees whose name starts with the letters J, A or M. Give each column appropriate label. Sort the results by the employees' last names.

APEX App Builder SQL Workshop Team Development Gallery

SQL Commands Schema WKSP_240701010

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 select initcap(last_name) as "Name",length(last_name) as "Length" from emp where last_name like 'J%' or last_name like 'A%' or last_name like 'M%' order by last_name;
```

Results Explain Describe Saved SQL History

Name	Length
Arun	4
Jackson	7

- Rewrite the query so that the user is prompted to enter that starts the last name. For example, if the user enters H when prompted for a letter, then the output should show all employees whose last name starts with the letter H.

APEX App Builder SQL Workshop Team Development Gallery

SQL Commands Schema WKSP_240701010

Language SQL Rows 10 Clear Command Find Tables Save Run

```
1 select emp_id,last_name from emp where last_name like (:letter || '%') order by last_name;
```

Results Explain Describe Saved SQL History

EMP_ID	LAST_NAME
103	Smith

6. The HR Department wants to find the length of employment for each employee. For each employee, display the last name and calculate the number of months between today and the date on which the employee was hired. Label the column MONTHS_WORKED. Order your results by the number of months employed. Round the number of months up to the closest whole number.

The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the following query:

```
1 select last_name,ceil(MONTHS_BETWEEN(sysdate,hire_date)) as "MONTHS_WORKED" from emp order by MONTHS_WORKED;
```

The Results pane shows the output of the query:

LAST_NAME	MONTHS_WORKED
Arun	44
Smith	54
Jackson	88

7. Create a report that produces the following of each employee:
<employee last name> earns <salary> monthly but wants <3 times salary>. Label the column Dream Salaries.

The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the following query:

```
1 select last_name || ' earns ' || salary || ' monthly but wants ' || (salary*3) as "Dream Salaries" from emp;
```

The Results pane shows the output of the query:

Dream Salaries
Arun earns 5500 monthly but wants 16500
Harward earns 6000 monthly but wants 18000
Jackson earns 4000 monthly but wants 12000

8. Create a query to display the last name and salary for all employees. Format the salary to be 15 characters long, left-padded with the \$ symbol. Label the column SALARY.

APEX SQL Workshop interface showing a query and its results.

SQL Command:

```
1 select last_name ,lpad(salary,15,'$') as "salary" from emp;
```

Results:

LAST_NAME	salary
Arun	\$\$\$\$\$\$\$\$\$\$\$500
Harward	\$\$\$\$\$\$\$\$\$\$\$6000
Jackson	\$\$\$\$\$\$\$\$\$\$\$4000

9. 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."

APEX SQL Workshop interface showing a query and its results.

SQL Command:

```
1 select last_name,hire_date,to_char(next_day(add_months(hire_date,6),'Monday'),'Day, the " &to_char(hire_date,'DD')& " of Month, yyyy') as "Review_Date" from emp;
```

Results:

LAST_NAME	HIRE_DATE	Review_Date
Arun	1/10/2022	Monday, the Eleventh of July, 2022
Harward	9/28/2016	Monday, the Third of April, 2017
Jackson	5/15/2018	Monday, the Nineteenth of November, 2018

10. 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.

APEX SQL Workshop interface showing a query and its results.

SQL Command:

```
1 select last_name,hire_date,to_char(hire_date,'fmDay') as "DAY" from emp order by to_char(hire_date,'D');
```

Results:

LAST_NAME	HIRE_DATE	DAY
Arun	1/10/2022	Monday
Jackson	5/15/2018	Tuesday
Harward	9/28/2016	Wednesday