

1. Write a PL/ SQL to find the date birth of a given programmer

The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the following PL/SQL code:

```
1 declare
2   pn programmer.pname%type:='Anand';
3   db programmer.dob%type;
4 begin
5   select dob into db from programmer where pname=pn;
6   dbms_output.put_line('Date of birth is  '||db);
7 exception
8   when no_data_found then
9     dbms_output.put_line('No data');
10
11 end;
```

The Results pane shows the output: "Date of birth is 04/21/1966" and "Statement processed." The execution time is 0.00 seconds.

2. Write a PL/ SQL to display the names and date of birth of programmers

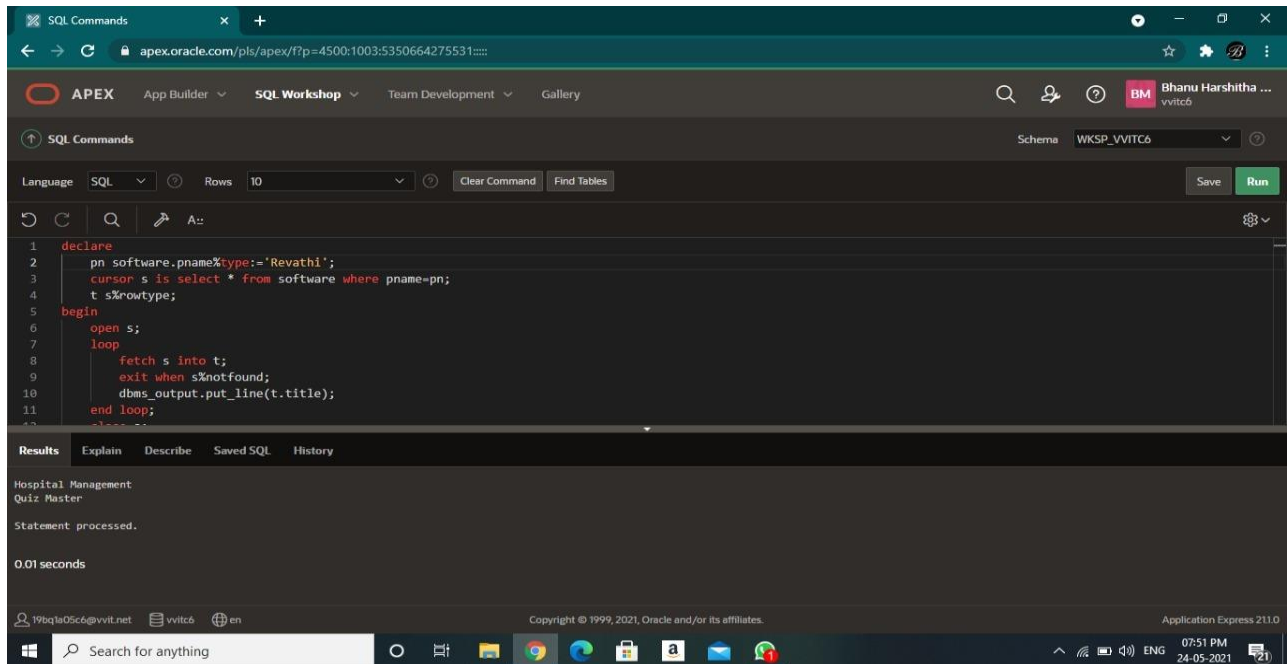
The screenshot shows the APEX SQL Workshop interface. The SQL Commands pane contains the following PL/SQL code:

```
1 declare
2   cursor s is select * from programmer;
3   t s%rowtype;
4 begin
5   open s;
6   loop
7     fetch s into t;
8     exit when s%notfound;
9     dbms_output.put_line('Pname  '||t.pname||'  '||'Date of Birth  '||t.dob);
10  end loop;
11  close s;
```

The Results pane shows the output as a list of programmer names and their dates of birth:

Pname	Date of Birth
Mary	06/24/1970
Nelson	09/30/1965
Rebecca	01/04/1967
Anand	04/21/1966
Altair	07/02/1964
Juliana	01/31/1968
Patrick	11/11/1965
Qadir	08/30/1965
Ramesh	05/08/1967

3. Write a PL/ SQL to find the titles of projects done by a given programmer



The screenshot shows the Oracle APEX SQL Workshop interface. The SQL command window contains the following PL/SQL code:

```
1 declare
2   pn software.pname%type:= 'Revathi';
3   cursor s is select * from software where pname=pn;
4   t s%rowtype;
5 begin
6   open s;
7   loop
8     fetch s into t;
9     exit when s%notfound;
10    dbms_output.put_line(t.title);
11  end loop;
12
```

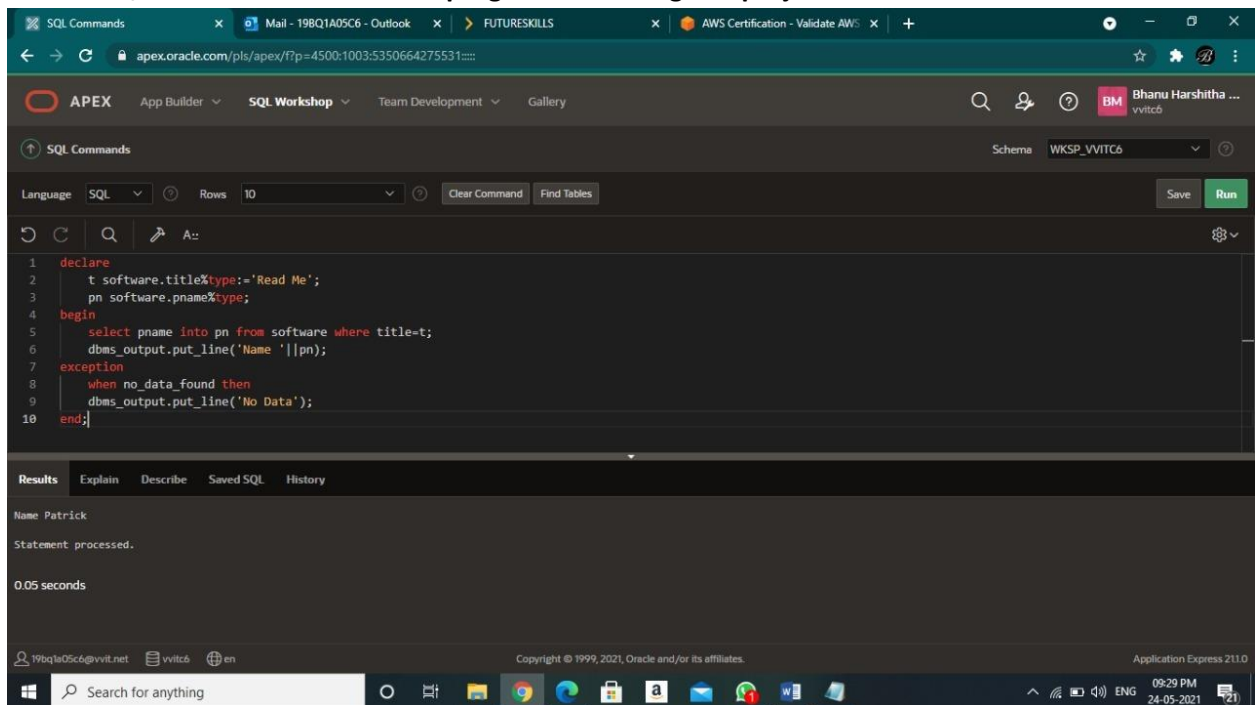
The Results tab shows the output of the query:

```
Hospital Management
Quiz Master

Statement processed.

0.01 seconds
```

4. Write a PL/ SQL to find the name of programmer for a given project



The screenshot shows the Oracle APEX SQL Workshop interface. The SQL command window contains the following PL/SQL code:

```
1 declare
2   t software.title%type:= 'Read Me';
3   pn software.pname%type;
4 begin
5   select pname into pn from software where title=t;
6   dbms_output.put_line('Name '||pn);
7 exception
8   when no_data_found then
9     dbms_output.put_line('No Data');
10 end;
```

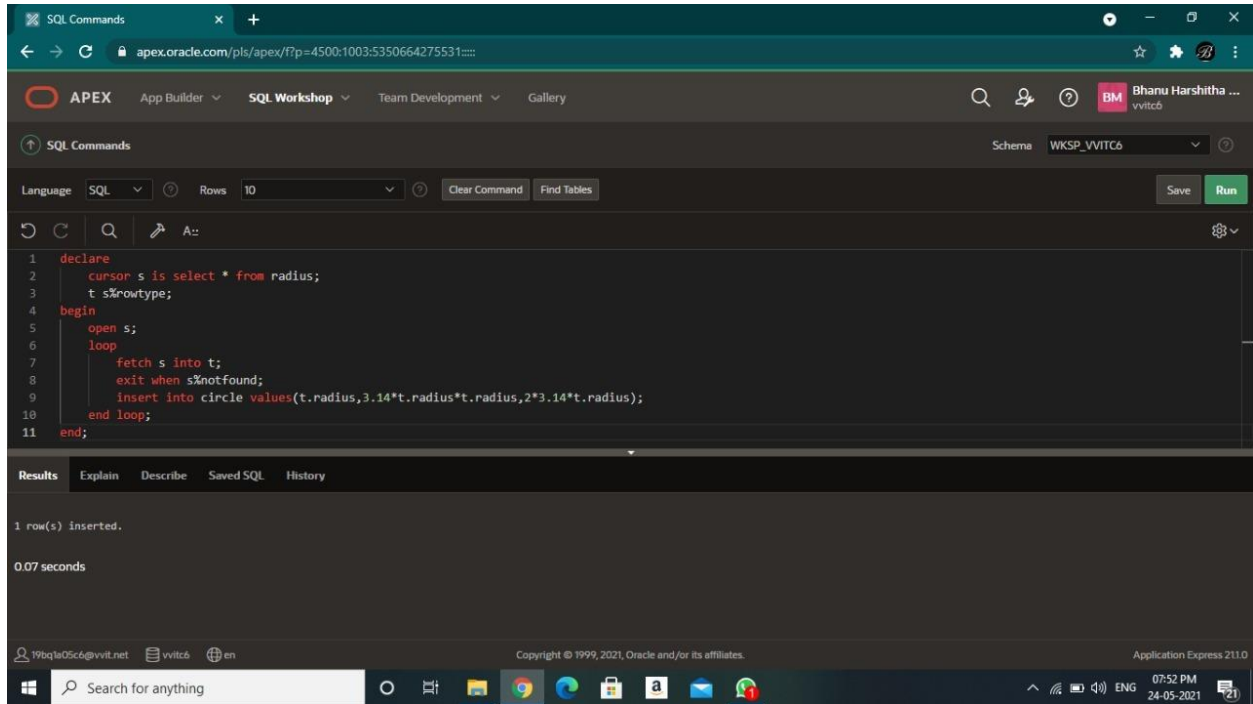
The Results tab shows the output of the query:

```
Name Patrick

Statement processed.

0.05 seconds
```

5. Write a PL/ SQL to calculate area and perimeter of radii present in the table radius and insert the radius, area and perimeter into another table circle



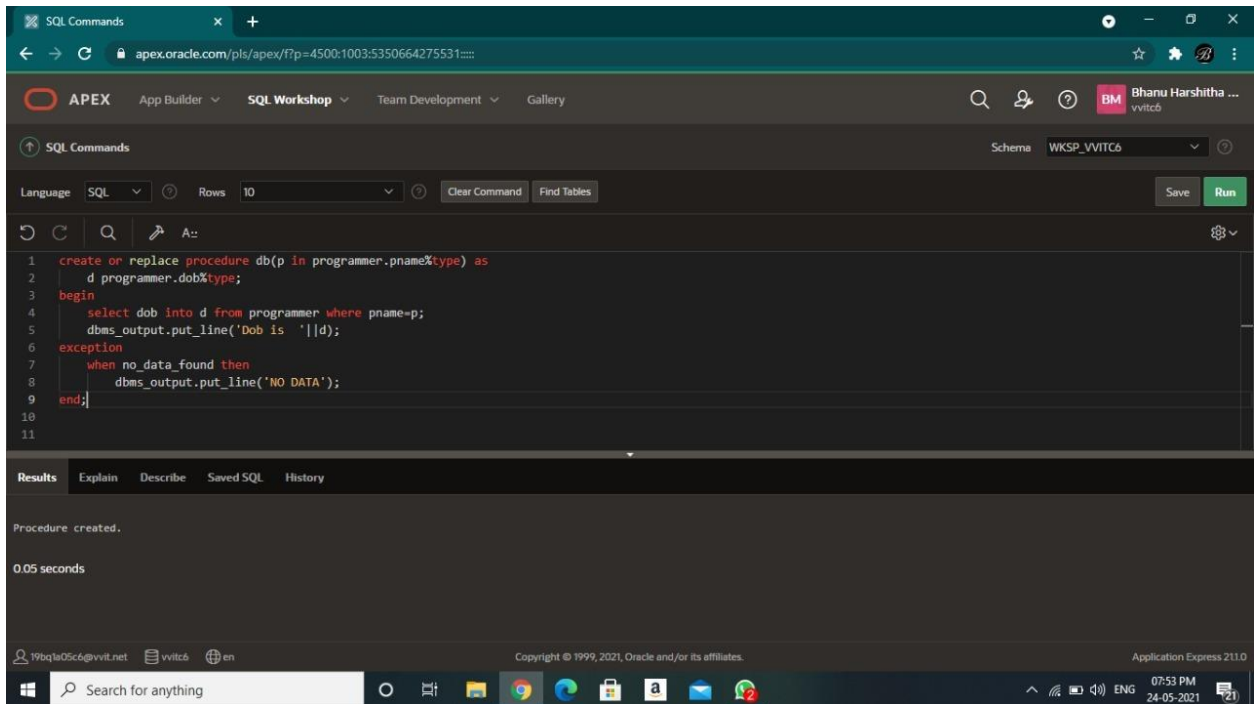
The screenshot shows the Oracle APEX SQL Workshop interface. The SQL Commands pane contains the following PL/SQL code:

```
1 declare
2   cursor s is select * from radius;
3   t s%rowtype;
4 begin
5   open s;
6   loop
7     fetch s into t;
8     exit when s%notfound;
9     insert into circle values(t.radius,3.14*t.radius*t.radius,2*3.14*t.radius);
10  end loop;
11 end;
```

The Results pane shows the execution output:

```
1 row(s) inserted.
0.07 seconds
```

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. The user is logged in as 'Bhanu Harshitha ... vvitc6'. The bottom status bar shows the date '24-05-2021' and time '07:52 PM'.



The screenshot shows the Oracle APEX SQL Workshop interface. The SQL Commands pane contains the following PL/SQL code:

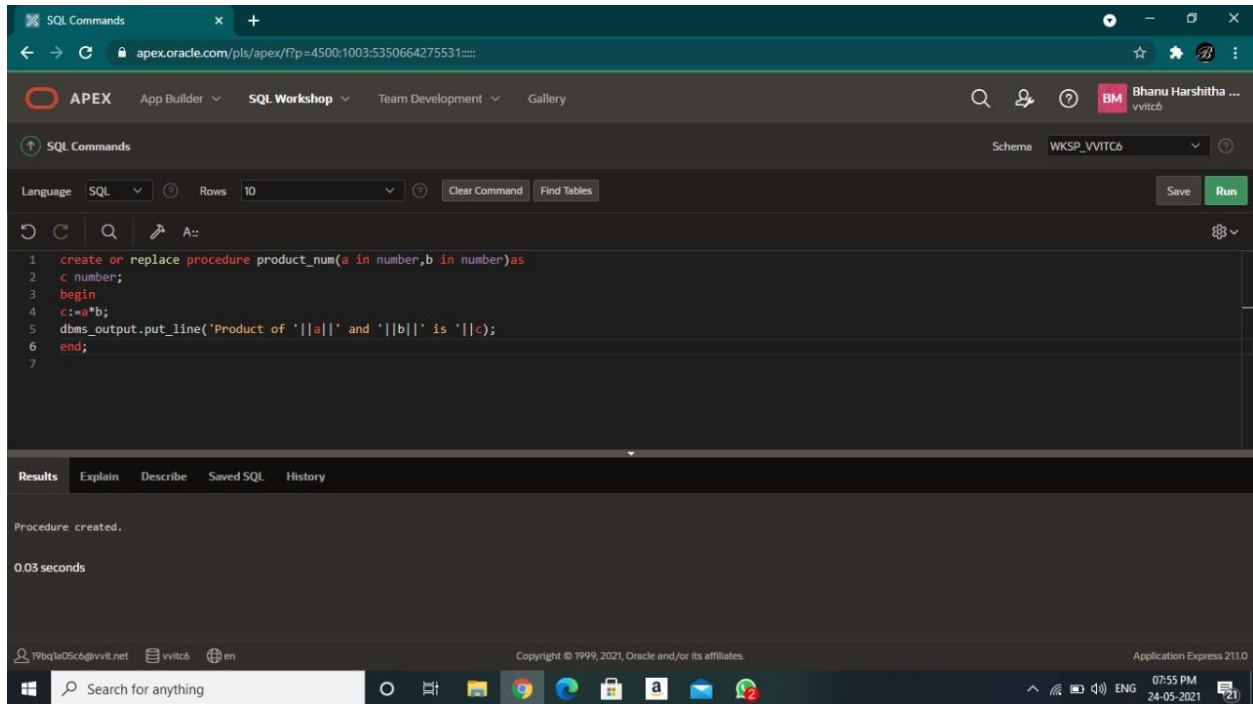
```
1 create or replace procedure db(p in programmer.pname%type) as
2   d programmer.dob%type;
3 begin
4   select dob into d from programmer where pname=p;
5   dbms_output.put_line('dob is '||d);
6 exception
7   when no_data_found then
8     dbms_output.put_line('NO DATA');
9 end;
```

The Results pane shows the execution output:

```
Procedure created.
0.05 seconds
```

The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. The user is logged in as 'Bhanu Harshitha ... vvitc6'. The bottom status bar shows the date '24-05-2021' and time '07:53 PM'.

6. Write a procedure to calculate the product two numbers



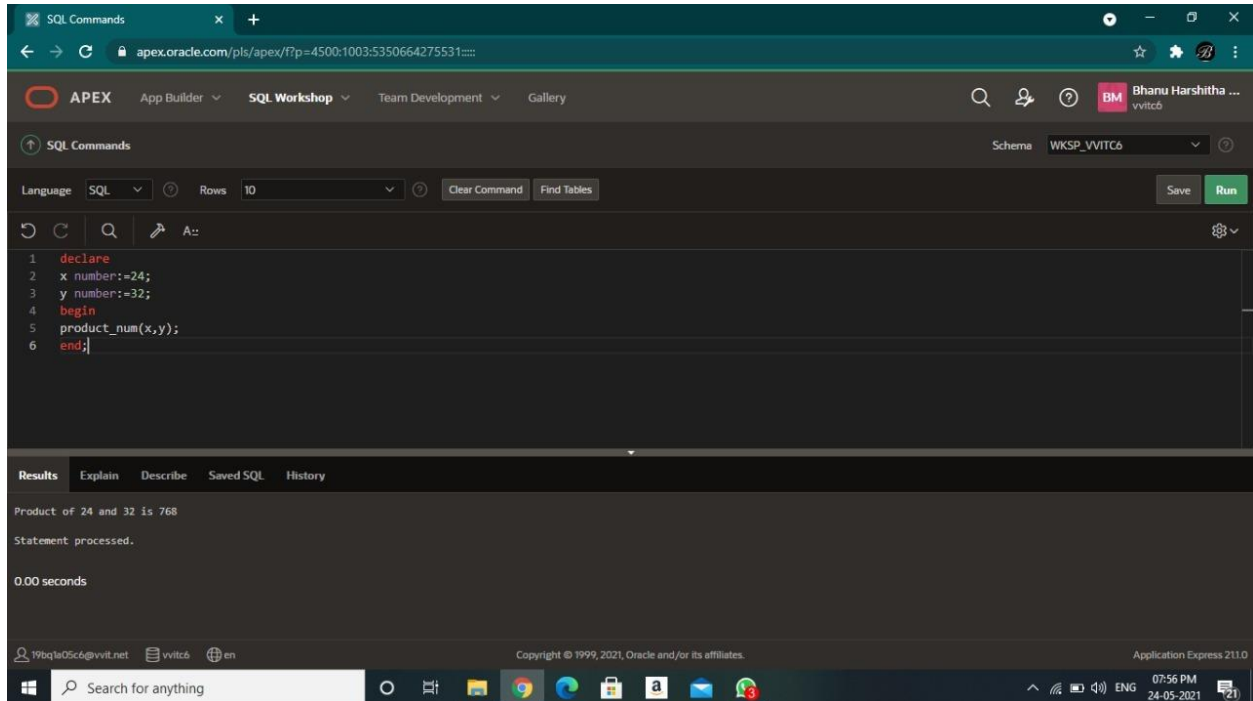
The screenshot shows the Oracle APEX SQL Workshop interface. The 'SQL Commands' tab is active, displaying a PL/SQL procedure named 'product_num'. The procedure takes two parameters, 'a' and 'b', both of type 'number'. It declares a variable 'c' of type 'number', calculates 'c := a * b;', and then outputs the result using 'dbms_output.put_line('Product of '||a||' and '||b||' is '||c);'. The 'Run' button is highlighted in green. Below the code editor, the 'Results' tab shows the message 'Procedure created.' and a execution time of '0.03 seconds'.

```
1 create or replace procedure product_num(a in number,b in number)as
2 c number;
3 begin
4 c:=a*b;
5 dbms_output.put_line('Product of '||a||' and '||b||' is '||c);
6 end;
7
```

Results Explain Describe Saved SQL History

Procedure created.

0.03 seconds



The screenshot shows the same Oracle APEX SQL Workshop interface, but now the procedure is being executed. The 'SQL Commands' tab displays the same code as before. The 'Run' button is highlighted in green. Below the code editor, the 'Results' tab shows the output 'Product of 24 and 32 is 768' and the message 'Statement processed.' with a execution time of '0.00 seconds'.

```
1 declare
2 x number:=24;
3 y number:=32;
4 begin
5 product_num(x,y);
6 end;
```

Results Explain Describe Saved SQL History

Product of 24 and 32 is 768

Statement processed.

0.00 seconds

7. Write a procedure to get the date of birth for a given programmer

The screenshot shows the APEX SQL Workshop interface. The 'SQL Commands' tab is active, displaying a PL/SQL function named 'getdb'. The function takes a parameter 'p' of type 'programmer.pname%type' and returns a date. The function body contains a 'select' statement to retrieve the 'dob' from the 'programmer' table where 'pname' equals 'p', followed by a 'return' statement. The 'Run' button is highlighted in green. Below the code editor, the 'Results' tab shows the message 'Function created.' and the execution time '0.03 seconds'.

```
1 create or replace function getdb(p in programmer.pname%type) return date as
2   d programmer.dob%type;
3 begin
4   select dob into d from programmer where pname=p;
5   return(d);
6 end;
```

Results Explain Describe Saved SQL History

Function created.

0.03 seconds

The screenshot shows the APEX SQL Workshop interface with a PL/SQL block. The block declares a variable 'x' of type 'programmer.pname%type' and assigns it the value 'Ramesh'. It also declares a variable 'r' of type 'programmer.dob%type'. The 'begin' block contains a call to 'getdb(x)' and a 'dbms_output.put_line' statement to display the date of birth. The 'Run' button is highlighted in green. Below the code editor, the 'Results' tab shows the output 'Date of birth is 05/08/1967' and the message 'Statement processed.' with an execution time of '0.00 seconds'.

```
1 declare
2   x programmer.pname%type:='Ramesh';
3   r programmer.dob%type;
4 begin
5   r:=getdb(x);
6   dbms_output.put_line('Date of birth is '||r);
7 end;
```

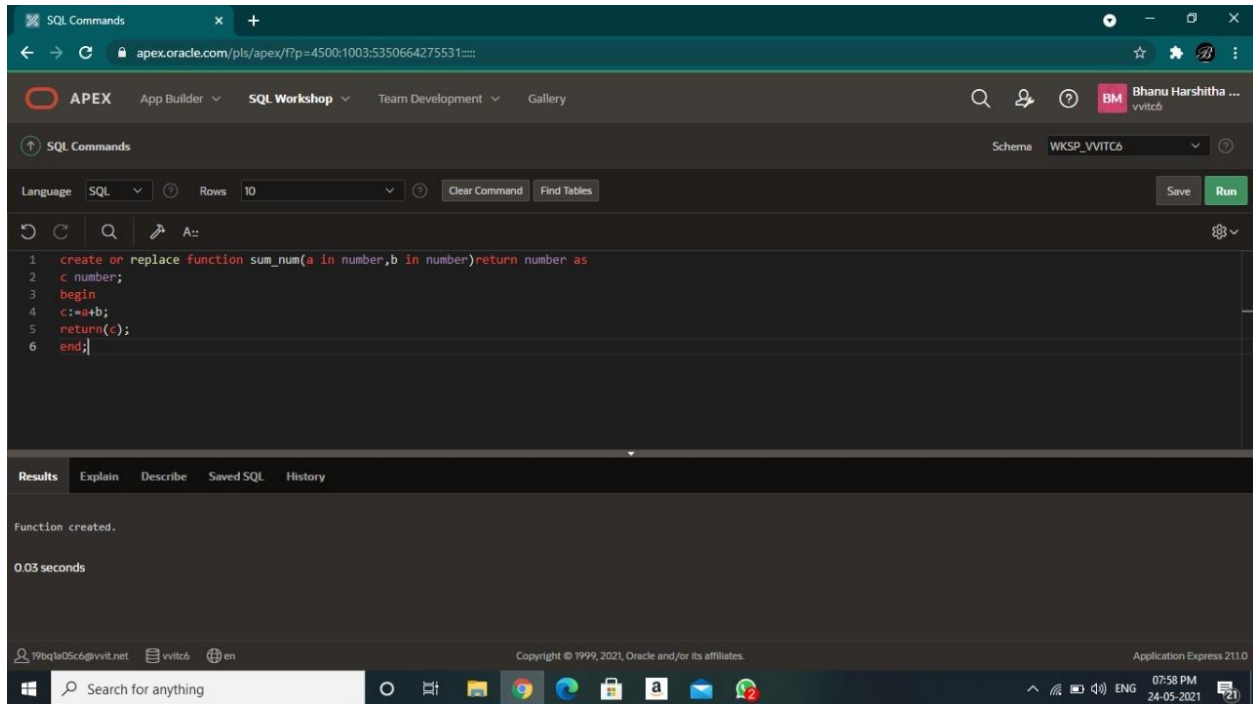
Results Explain Describe Saved SQL History

Date of birth is 05/08/1967

Statement processed.

0.00 seconds

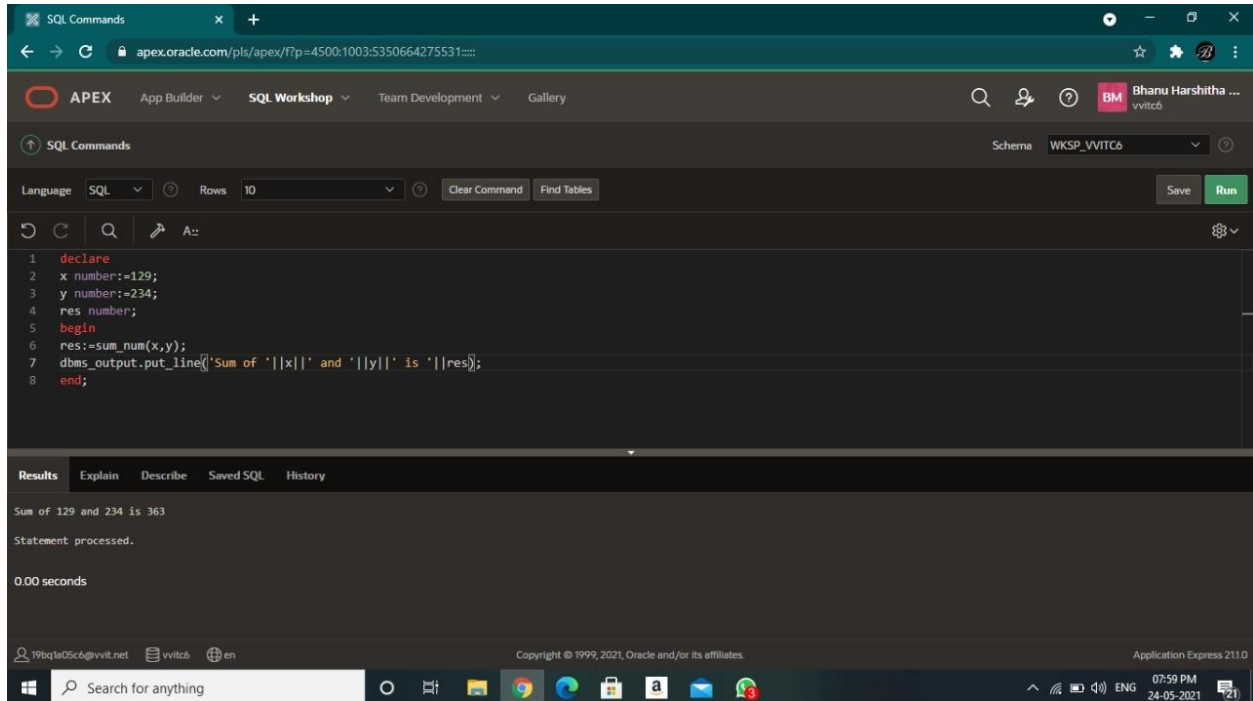
8. Write a function to return the sum of two numbers



The screenshot shows the APEX SQL Workshop interface. The 'SQL Commands' tab is active, and the 'Schema' dropdown is set to 'WKSP_VVITC6'. The 'Language' is set to 'SQL' and 'Rows' is set to '10'. The 'Run' button is highlighted in green. The SQL command entered is:

```
1 create or replace function sum_num(a in number,b in number) return number as
2 c number;
3 begin
4 c:=a+b;
5 return(c);
6 end;
```

The 'Results' tab is selected, showing the message 'Function created.' and a execution time of '0.03 seconds'.

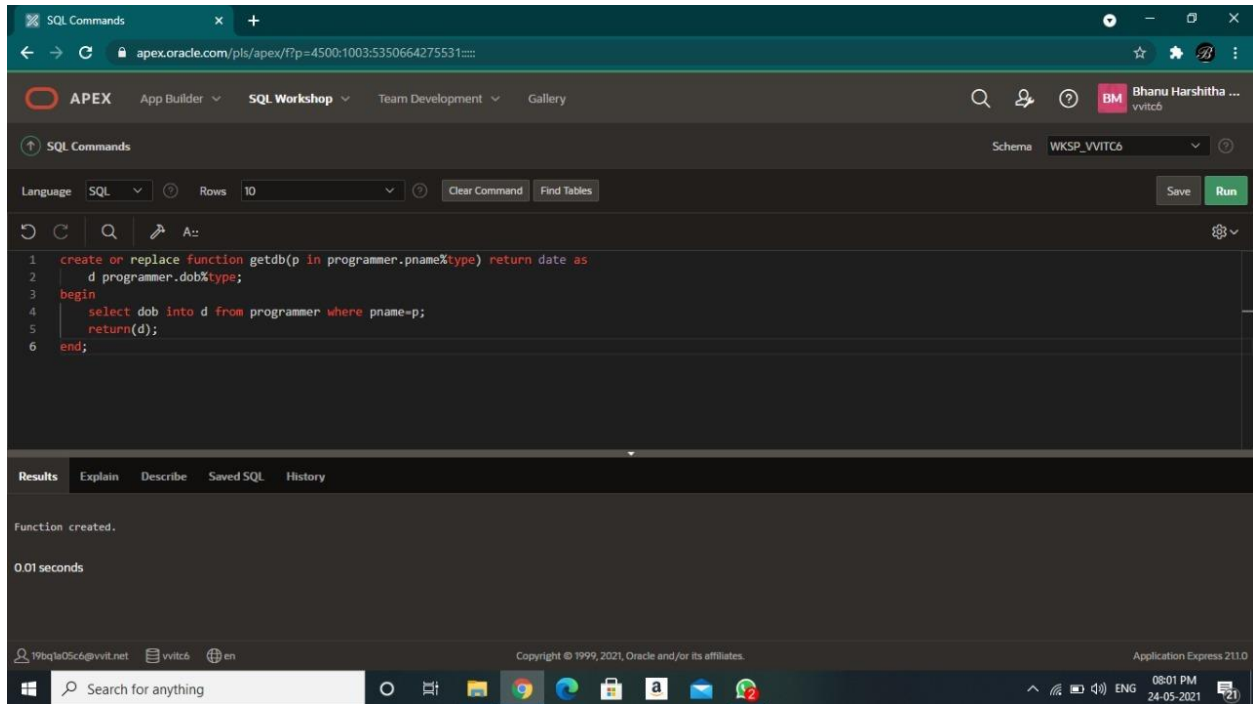


The screenshot shows the APEX SQL Workshop interface with the same 'SQL Commands' tab and 'Schema' dropdown. The 'Run' button is highlighted in green. The SQL command entered is:

```
1 declare
2 x number:=129;
3 y number:=234;
4 res number;
5 begin
6 res:=sum_num(x,y);
7 dbms_output.put_line('Sum of '||x||' and '||y||' is '||res);
8 end;
```

The 'Results' tab is selected, showing the output 'Sum of 129 and 234 is 363' and the message 'Statement processed.' with a execution time of '0.00 seconds'.

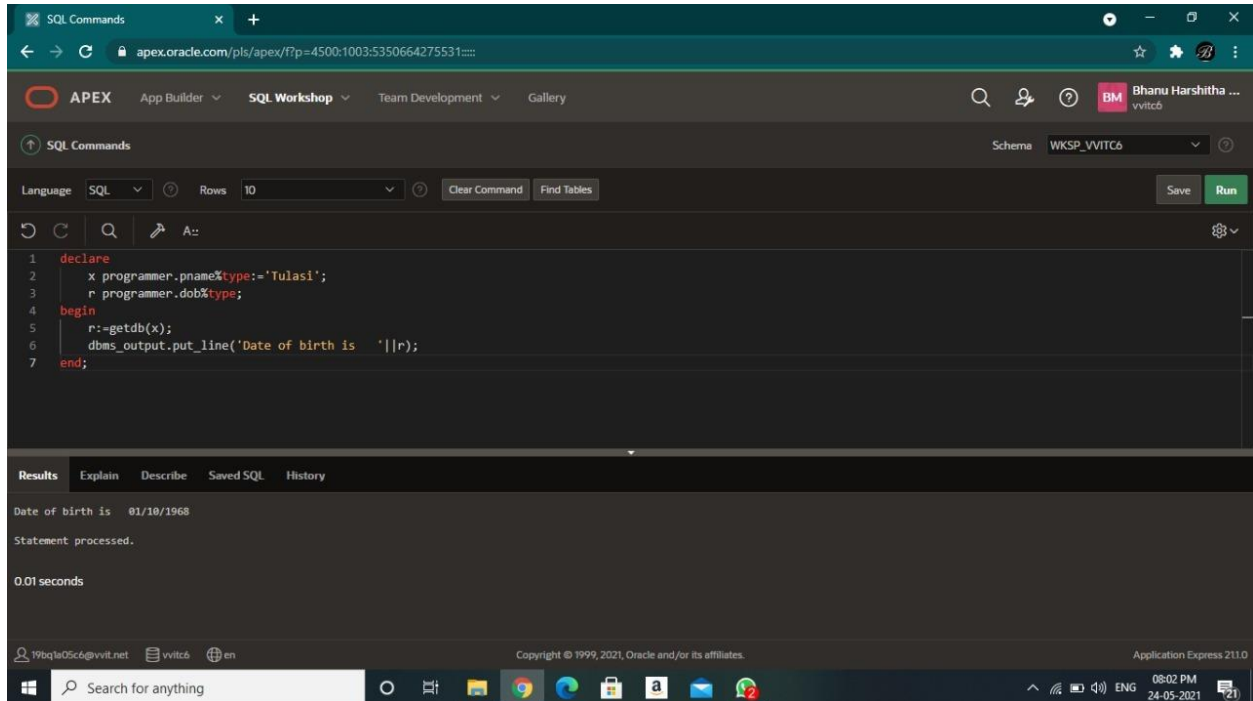
9. Write a function to return the date of birth for a given programmer



The screenshot shows the APEX SQL Workshop interface. The 'SQL Commands' tab is active, displaying a PL/SQL block to create a function named 'getdb'. The function takes a parameter 'p' of type 'programmer.pname%type' and returns a date. The code is as follows:

```
1 create or replace function getdb(p in programmer.pname%type) return date as
2   d programmer.dob%type;
3 begin
4   select dob into d from programmer where pname=p;
5   return(d);
6 end;
```

The 'Results' tab shows the message 'Function created.' and the execution time '0.01 seconds'.

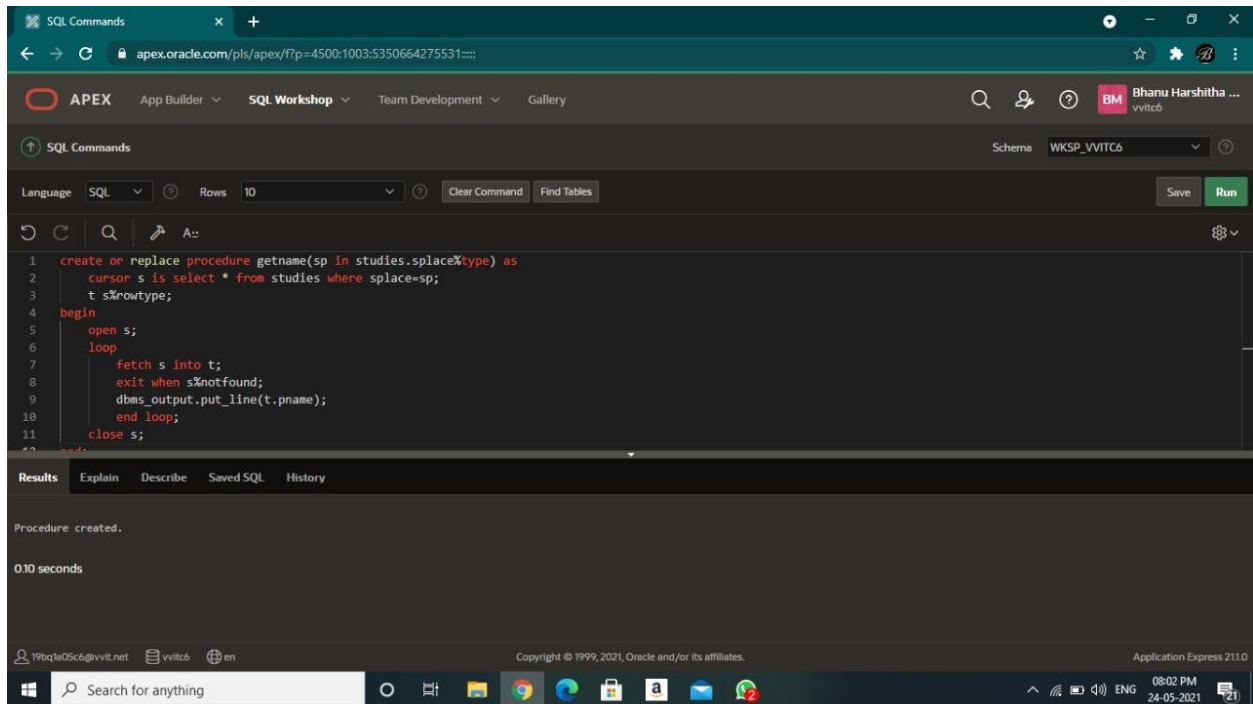


The screenshot shows the APEX SQL Workshop interface with the 'SQL Commands' tab active. The PL/SQL block is now a test of the 'getdb' function, declaring a variable 'x' of type 'programmer.pname%type' and setting it to 'Tulasi'. It then calls 'getdb(x)' and outputs the result using 'dbms_output.put_line'. The code is as follows:

```
1 declare
2   x programmer.pname%type:='Tulasi';
3   r programmer.dob%type;
4 begin
5   r:=getdb(x);
6   dbms_output.put_line('Date of birth is '||r);
7 end;
```

The 'Results' tab shows the output 'Date of birth is 01/10/1968' and the message 'Statement processed.' with an execution time of '0.01 seconds'.

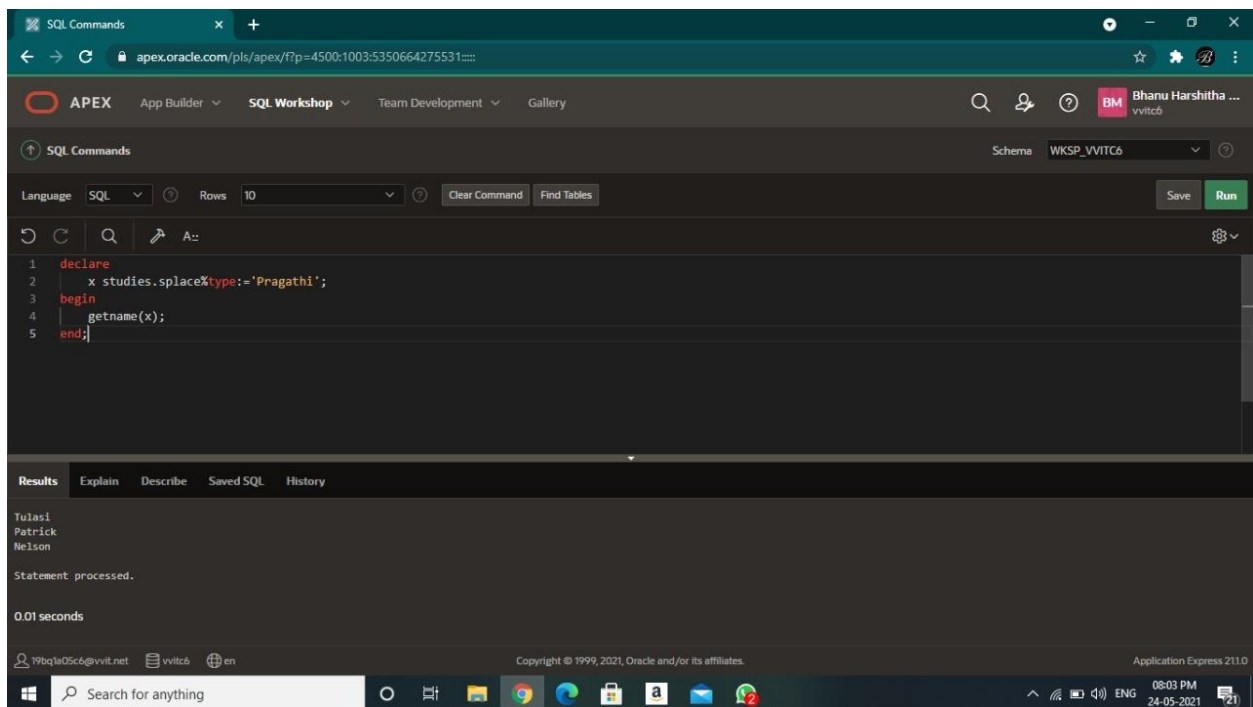
10. Write a procedure to display the names of programmer studied in a given institute



The screenshot shows the SQL Workshop interface in Oracle APEX. The 'SQL Commands' tab is active, and the 'Run' button has been clicked. The command window contains the following PL/SQL code:

```
1 create or replace procedure getname(sp in studies.splace%type) as
2   cursor s is select * from studies where splace=sp;
3   t s%rowtype;
4 begin
5   open s;
6   loop
7     fetch s into t;
8     exit when s%notfound;
9     dbms_output.put_line(t.pname);
10  end loop;
11 close s;
```

The 'Results' tab shows the message 'Procedure created.' and the execution time '0.10 seconds'.



The screenshot shows the SQL Workshop interface with the 'Run' button clicked again. The command window contains the following PL/SQL code:

```
1 declare
2   x studies.splace%type:='Pragathi';
3 begin
4   getname(x);
5 end;
```

The 'Results' tab shows the output of the procedure:

```
Tulasi
Patrick
Nelson
```

The 'Results' tab also shows the message 'Statement processed.' and the execution time '0.01 seconds'.

11. Write a function to calculate the total development cost for a given programmer using cursors

The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. The user is logged in as 'Bhanu Harshitha ... vvvtc6'. The 'SQL Commands' tab is active, and the schema is set to 'WKSP_VVITC6'. The language is 'SQL' and the number of rows is set to '10'. The command area contains the following SQL code:

```
1 create or replace function gettot(p in software.pname%type) return number as
2   r number;
3   cursor s is select * from software where pname=p;
4   t s%rowtype;
5 begin
6   r:=0;
7   open s;
8   loop
9     fetch s into t;
10    exit when s%notfound;
11    r:=r+t.dcost;
12 end;
```

The 'Results' tab shows the message 'Function created.' and the execution time '0.03 seconds'.

The screenshot shows the Oracle APEX SQL Workshop interface with the same user and schema. The command area contains the following SQL code:

```
1 declare
2   res number;
3   p software.pname%type:='Anand';
4 begin
5   res:=gettot(p);
6   dbms_output.put_line('Total development cost is '||res);
7 end;
```

The 'Results' tab shows the output 'Total development cost is 22000' and the message 'Statement processed.' with an execution time of '0.01 seconds'.