

```

declare
    bijli_units monthly_unit;
    bijli_total number:=0;
    customerid number:=&customerid;
begin
    Select monthly_units into bijli_units from billconsume where
    custid=customerid;
    for i in 1..bijli_units.count
    loop
        bijli_total:= bijli_total + bijli_units(i);
    end loop;
    dbms_output.put_line('Total yearly Electricity units ' || bijli_total);
    dbms_output.put_line('Monthly consumption electricity'||bijli_total/12);
    if bijli_total>300 then
        dbms_output.put_line('You already reach to your limit');
    end if;
end;
/
-----
```

SQL\*Plus: Release 21.0.0.0.0 - Production on Mon Jan 5 15:44:36 2026  
Version 21.3.0.0.0

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Enter user-name: user1/pass1  
Last Successful login time: Sun Jan 04 2026 22:53:43 +05:30

Connected to:  
Oracle Database 21c Express Edition Release 21.0.0.0.0 - Production  
Version 21.3.0.0.0

SQL> Select \* from student;

ROLLNO	NAME	MARKS	GRADE
1	aayush	78	B
2	aayushi	87	A
3	Palak	99	A
4	Disha	92	A
5	Vikhyat	42	C
6	Rampal	52	C

6 rows selected.

SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA\_SCIENTIST\ORACLE\_AND\_MONGODB\PRACTISE\VARRAY\b  
ill1.sql

SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA\_SCIENTIST\ORACLE\_AND\_MONGODB\PRACTISE\VARRAY\b

```
ill1.sql
```

```
SQL> create type monthly_unit as varray(12) of number;  
2 /
```

```
Type created.
```

```
SQL> select * from monthly_unit;  
select * from monthly_unit  
*  
ERROR at line 1:  
ORA-04044: procedure, function, package, or type is not allowed here
```

```
SQL> create table billconsume (custid number primary key , cname  
varchar(20),monthly_units monthly_unit);
```

```
Table created.
```

```
SQL> desc billconsume;  
Name Null? Type  
-----  
CUSTID NOT NULL NUMBER  
CNAME VARCHAR2(20)  
MONTHLY_UNITS MONTHLY_UNIT
```

```
SQL> insert into  
billconsume(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34));  
insert into billconsume(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34))  
*
```

ERROR at line 1:  
ORA-00928: missing SELECT keyword

```
SQL> insert into  
billconsume(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34));  
insert into billconsume(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34))  
*
```

ERROR at line 1:  
ORA-00928: missing SELECT keyword

```
SQL> insert into billconsume  
values(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34));  
insert into billconsume  
values(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34))  
  
*  
ERROR at line 1:  
ORA-00917: missing comma
```

```

SQL> insert into billconsume
values(1,'aayush',monthly_unit(12,13,21,23,21,23,43,2,3,21,22,34));

1 row created.

SQL> select * from billconsume;

      CUSTID CNAME
-----+
MONTHLY_UNITS
-----+
          1 aayush
MONTHLY_UNIT(12, 13, 21, 23, 21, 23, 43, 2, 3, 21, 22, 34)

SQL> select count(*) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34;
select count(*) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34

          *

ERROR at line 1:
ORA-00907: missing right parenthesis

SQL> select count(*) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);

      COUNT(*)
-----
          1

SQL> select sum(b.monthly_units) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);
select sum(b.monthly_units) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34)
          *

ERROR at line 1:
ORA-00932: inconsistent datatypes: expected NUMBER got USER1.MONTHLY_UNIT

SQL> select sum(*) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);
select sum(*) from billconsume b where exists(Select 1 from table(b.monthly_units)t
where t.column_value=34)
          *

ERROR at line 1:
ORA-00936: missing expression

```

```
SQL> select sum(t.column_value) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);
select sum(t.column_value) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34)
*
ERROR at line 1:
ORA-00904: "T"."COLUMN_VALUE": invalid identifier
```

```
SQL> select sum(column_value) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);
select sum(column_value) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34)
*
ERROR at line 1:
ORA-00904: "COLUMN_VALUE": invalid identifier
```

```
SQL> select * from billconsume b where exists(Select 1 from table(b.monthly_units)t
where t.column_value=34);
```

CUSTID	CNAME
MONTHLY_UNITS	
1	aayush
MONTHLY_UNIT	(12, 13, 21, 23, 21, 23, 43, 2, 3, 21, 22, 34)

```
SQL> select sum(monthly_units) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34);
select sum(monthly_units) from billconsume b where exists(Select 1 from
table(b.monthly_units)t where t.column_value=34)
*
```

```
ERROR at line 1:
ORA-00932: inconsistent datatypes: expected NUMBER got USER1.MONTHLY_UNIT
```

```
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
```

```
SQL> @@
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for columnvalue: 1
old    4:          columnvalue number:= &columnvalue;
new    4:          columnvalue number:= 1;
```

```
Select monthly_units into v_units from billconsume b where custid
exists(Select 1 from table(b.monthly_units)t where t.column_value = columnvalue;
*
ERROR at line 6:
ORA-06550: line 6, column 68:
PL/SQL: ORA-00920: invalid relational operator
ORA-06550: line 6, column 2:
PL/SQL: SQL Statement ignored
ORA-06550: line 15, column 4:
PLS-00103: Encountered the symbol ";" when expecting one of the following:
if
```

```
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
```

```
SQL> @@
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for columnvalue: 1
old    4:      columnvalue number:= &columnvalue;
new    4:      columnvalue number:= 1;
      Select monthly_units into v_units from billconsume b where custid
exists(Select 1 from table(b.monthly_units)t where t.column_value = columnvalue);
*
ERROR at line 6:
ORA-06550: line 6, column 68:
PL/SQL: ORA-00920: invalid relational operator
ORA-06550: line 6, column 2:
PL/SQL: SQL Statement ignored
ORA-06550: line 15, column 4:
PLS-00103: Encountered the symbol ";" when expecting one of the following:
if
```

```
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
```

```
SQL> @@
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for customerid: 1
old    4:      customerid number:=&customerid;
new    4:      customerid number:=1;
end;
*
ERROR at line 15:
ORA-06550: line 15, column 4:
```

```
PLS-00103: Encountered the symbol ";" when expecting one of the following:  
if
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 1  
old  4:      customerid number:=&customerid;  
new  4:      customerid number:=1;  
      select custid,sum(column_value) as v_units from  
billconsume,table(monthly_units) where custid=customerid ;  
*  
ERROR at line 6:  
ORA-06550: line 6, column 2:  
PLS-00428: an INTO clause is expected in this SELECT statement  
ORA-06550: line 8, column 22:  
PLS-00487: Invalid reference to variable 'V_UNITS'  
ORA-06550: line 8, column 2:  
PL/SQL: Statement ignored
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 1  
old  4:      customerid number:=&customerid;  
new  4:      customerid number:=1;  
      select custid,sum(column_value) as customerid,v_units from  
billconsume,table(monthly_units) where custid=customerid ;  
*  
ERROR at line 7:  
ORA-06550: line 7, column 2:  
PLS-00428: an INTO clause is expected in this SELECT statement  
ORA-06550: line 9, column 22:  
PLS-00487: Invalid reference to variable 'V_UNITS'  
ORA-06550: line 9, column 2:  
PL/SQL: Statement ignored
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
```

```
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 1  
old    4:      customerid number:=&customerid;  
new    4:      customerid number:=1;  
      Select monthly_units into v_units from billconsume where custid=customerid;  
      *  
ERROR at line 6:  
ORA-06550: line 6, column 9:  
PL/SQL: ORA-00932: inconsistent datatypes: expected NUMBER got  
USER1.MONTHLY_UNIT  
ORA-06550: line 6, column 2:  
PL/SQL: SQL Statement ignored  
ORA-06550: line 8, column 22:  
PLS-00487: Invalid reference to variable 'V_UNITS'  
ORA-06550: line 8, column 2:  
PL/SQL: Statement ignored
```

```
SQL> select * from billconsume;
```

CUSTID	CNAME
1	aayush

  

MONTHLY_UNITS
MONTHLY_UNIT(12, 13, 21, 23, 21, 23, 43, 2, 3, 21, 22, 34)

```
SQL> edit
```

```
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 1  
old    4:      customerid number:=&customerid;  
new    4:      customerid number:=1;
```

```
PL/SQL procedure successfully completed.
```

```
SQL> set serveroutput on ;
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
Enter value for customerid: 1
```

```
old  4:      customerid number:=&customerid;
new  4:      customerid number:=1;
Total yearly Electricity units 238
```

PL/SQL procedure successfully completed.

```
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
```

```
SQL> insert into billconsume
values(2, 'Aman', monthly_unit(32,34,32,34,21,21,12,12,21,32,23,21));
```

1 row created.

```
SQL> @@
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for customerid: 2
old  5:      customerid number:=&customerid;
new  5:      customerid number:=2;
```

Trigger created.

```
SQL> set serverout on ;
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
```

```
SQL> @@
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for customerid: 2
old  4:      customerid number:=&customerid;
new  4:      customerid number:=2;
Total yearly Electricity units 295
```

PL/SQL procedure successfully completed.

```
SQL> select * from billconsume;
```

CUSTID	CNAME
-----	-----
MONTHLY_UNITS	
-----	-----
1	aayush
MONTHLY_UNIT(12, 13, 21, 23, 21, 23, 43, 2, 3, 21, 22, 34)	
-----	-----
2	Aman
MONTHLY_UNIT(32, 34, 32, 34, 21, 21, 12, 12, 21, 32, 23, 21)	

```
SQL> insert into billconsume
values(3,'Disha',monthly_unit(32,34,32,34,21,21,12,12,21,32,23,28));
Total yearly Electricity units 295

1 row created.

SQL> @
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for customerid: 2
old    4:          customerid number:=&customerid;
new    4:          customerid number:=2;
Total yearly Electricity units 295
```

PL/SQL procedure successfully completed.

```
SQL> @
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql
Enter value for customerid: 3
old    4:          customerid number:=&customerid;
new    4:          customerid number:=3;
Total yearly Electricity units 302
You already reach to your limit
```

PL/SQL procedure successfully completed.

```
SQL> edit
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b
ill1.sql

SQL> select sount(monthly_units) from billconsume;
select sount(monthly_units) from billconsume
*
ERROR at line 1:
ORA-00904: "SOUNT": invalid identifier
```

```
SQL> select count(monthly_units) from billconsume;
select count(monthly_units) from billconsume
*
ERROR at line 1:
ORA-00932: inconsistent datatypes: expected - got USER1.MONTHLY_UNIT
```

```
SQL> select count(monthly_unit) from billconsume;
select count(monthly_unit) from billconsume
*
```

```
ERROR at line 1:  
ORA-00904: "MONTHLY_UNIT": invalid identifier
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 3  
old 5:      customerid number:=&customerid;  
new 5:      customerid number:=3;  
          customerid number:=3;  
          *  
ERROR at line 5:  
ORA-06550: line 5, column 13:  
PLS-00103: Encountered the symbol "NUMBER" when expecting one of the following:  
:= . ( @ % ; not null range default character  
The symbol "." was substituted for "NUMBER" to continue.
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 2  
old 5:      customerid number:=&customerid;  
new 5:      customerid number:=2;  
          customerid number:=2;  
          *  
ERROR at line 5:  
ORA-06550: line 5, column 13:  
PLS-00103: Encountered the symbol "NUMBER" when expecting one of the following:  
:= . ( @ % ; not null range default character  
The symbol "." was substituted for "NUMBER" to continue.
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

```
SQL> @  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql  
Enter value for customerid: 3  
old 4:      customerid number:=&customerid;  
new 4:      customerid number:=3;  
          for i in 1..v_units.count  
          *
```

```
ERROR at line 7:  
ORA-06550: line 7, column 14:  
PLS-00201: identifier 'V_UNITS.COUNT' must be declared  
ORA-06550: line 7, column 2:  
PL/SQL: Statement ignored
```

```
SQL> edit  
C:\Users\Ayush\OneDrive\Desktop\DATA_SCIENTIST\ORACLE_AND_MONGODB\PRACTISE\VARRAY\b  
ill1.sql
```

PL/SQL procedure successfully completed.

PL/SQL procedure successfully completed.

SQL>