

CREATE OR REPLACE Function fun

(x IN number)

RETURN number

IS

y number;

BEGIN

RETURN x*x;

EXCEPTION

WHEN OTHERS THEN

raise_application_error(-20001,'An error was encountered -
'||SQLCODE||' -ERROR- '||SQLERRM);

END;

/

```
set serveroutput on
```

```
CREATE OR REPLACE procedure ppp
```

```
as
```

```
    BEGIN
```

```
        dbms_output.put_line('Ala ma kota');
```

```
    EXCEPTION
```

```
    WHEN OTHERS THEN
```

```
        raise_application_error(-20001,'An error was encountered -  
'||SQLCODE||' -ERROR- '||SQLERRM);
```

```
    END;
```

```
 /
```

set serveroutput on

CREATE OR REPLACE procedure prockom as

TYPE mojtyp IS RECORD

(x varchar2(20),

y varchar2(200));

wiersz mojtyp;

CURSOR kur IS SELECT * FROM ankieta;

BEGIN

dbms_output.put_line('Opinie z dnia: ' || to_char(sysdate,'DD-Mon-YYYY
HH24:MM'));

OPEN kur;

LOOP

FETCH kur INTO wiersz.x, wiersz.y;

EXIT WHEN kur%NOTFOUND OR kur%NOTFOUND IS NULL;

dbms_output.put_line(wiersz.y);

END LOOP;

CLOSE kur;

EXCEPTION

WHEN OTHERS THEN

raise_application_error(-20001,'An error was encountered -
' || SQLCODE || ' -ERROR- ' || SQLERRM);

END;

/

```
set serveroutput on
```

```
CREATE OR REPLACE procedure wpisz ( x IN varchar2)
```

```
as
```

```
    BEGIN
```

```
        insert into ankieta values(x,'ala ma kota');
```

```
    commit;
```

```
    EXCEPTION
```

```
    WHEN OTHERS THEN
```

```
        raise_application_error(-20001,'An error was encountered -  
'||SQLCODE||' -ERROR- '||SQLERRM);
```

```
    END;
```

```
 /
```

SEKWENCJE

```
CREATE SEQUENCE sequence_name  
  MINVALUE value  
  MAXVALUE value  
  START WITH value  
  INCREMENT BY value  
  CACHE value;
```

```
INSERT INTO tabela  
(kolumna1, kolumna2)  
VALUES  
(sequence_name.NEXTVAL, 'Kowalski');
```

```
DROP SEQUENCE sequence_name;
```

```
ALTER SEQUENCE seq_name  
INCREMENT BY 124;
```

```
SELECT seq_name.nextval FROM dual;
```

```
ALTER SEQUENCE seq_name  
INCREMENT BY 1;
```

Zastosowania w zadaniach projektowych:

- Numery kuponów toto-lotka
- Numery biletów w systemach rezerwacji
- Numery sesji w systemach egzaminujących
- Numeracja problemów w analizie wzorców tekstowych

DATA

```
Select to_char(sysdate, 'YYYY/MM/DD HH24:MM') from dual;
```

```
Select to_char(sysdate, 'YYYY-Month-DD') from dual;
```

```
Insert into tabela select to_date('2014/04/04', 'YYYY/MM/DD') from  
dual;
```

PRIMARY KEYS

```
CREATE TABLE table_name  
(  
    column1 datatype null/not null,  
    column2 datatype null/not null,  
    ...  
  
    CONSTRAINT constraint_name PRIMARY KEY (column1,  
column2, ... column_n)  
);
```

```
ALTER TABLE table_name  
ADD CONSTRAINT constraint_name PRIMARY KEY (column1,  
column2, ... column_n);
```

FOREIGN KEYS

```
CREATE TABLE table_name  
(  
    column1 datatype null/not null,  
    column2 datatype null/not null,  
    ...  
  
    CONSTRAINT fk_column  
        FOREIGN KEY (column1, column2, ... column_n)  
        REFERENCES parent_table (column1, column2, ...  
column_n)  
);
```

KASKADOWE USUWANIE DANYCH

```
CREATE TABLE table_name
(
  column1 datatype null/not null,
  column2 datatype null/not null,
  ...

  CONSTRAINT fk_column
    FOREIGN KEY (column1, column2, ... column_n)
    REFERENCES parent_table (column1, column2, ...
column_n)
    ON DELETE CASCADE
);
```


SPOOLER

REM komentarz

PROMPT

PROMPT

PROMPT Program do czyszczenia schematow uzytkownikow

PROMPT

PROMPT

ACCEPT username PROMPT 'Podaj nazwe uzytkownika: '

spool clean_end.sql

```
select 'drop '||object_type||' '||owner||'.'||object_name||  
DECODE(OBJECT_TYPE,'TABLE',' CASCADE CONSTRAINTS;',';')  
from dba_objects where owner like UPPER('&username');
```

spool off

@clean_end.sql