

PERULANGAN (2)

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REVIEW

PERULANGAN DALAM PASCAL

- ◎ **FOR...TO....DO**

FOR ... DOWNTODO

- ◎ **WHILE DO....**

- ◎ **REPEAT UNTIL....**

FOR..TO..

Var

 I : integer ;

Begin

For I : = 1 **to** 5 **do**

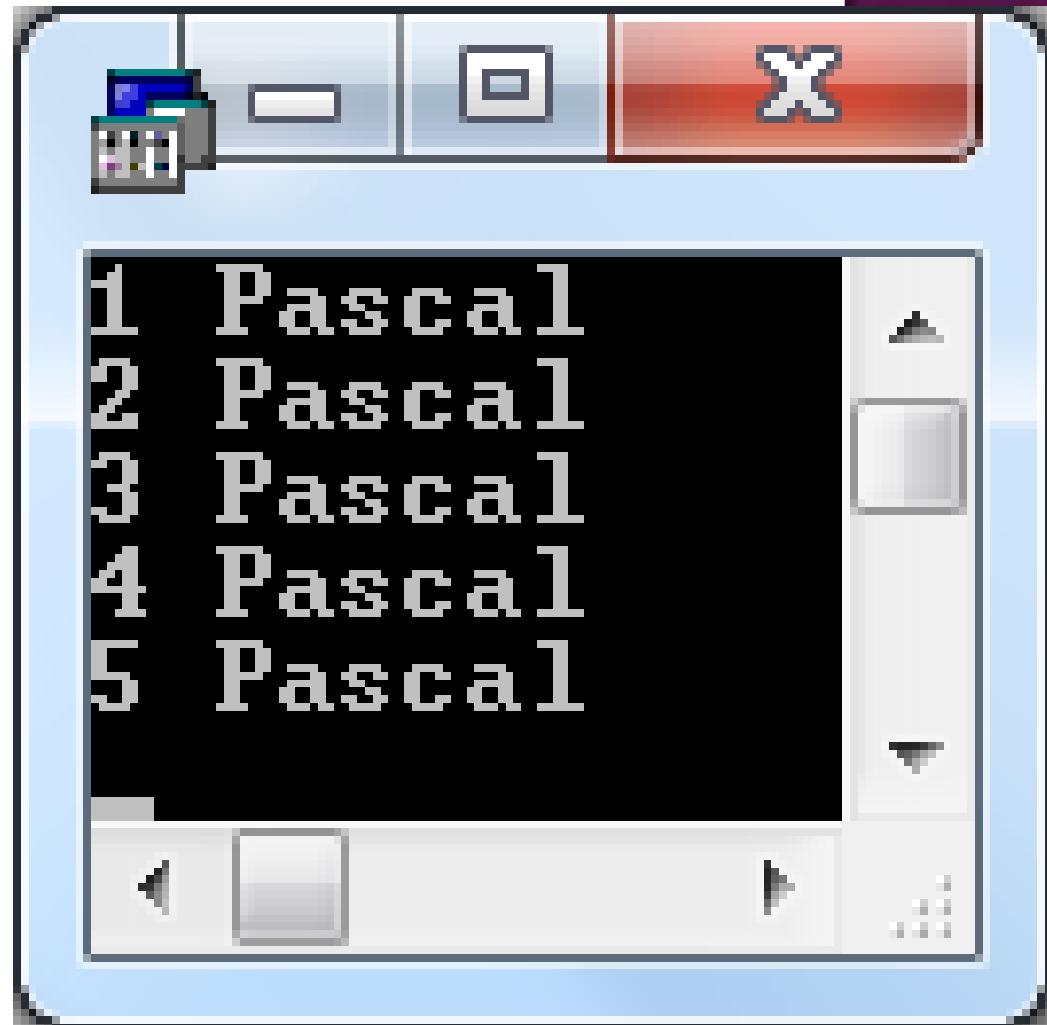
 Begin

 Write (I);

 Writeln ('Pascal');

 End ;

End.



FOR..DOWNTO..

Var

I : integer ;

Begin

For I : = 5 **down to** 1 **do**

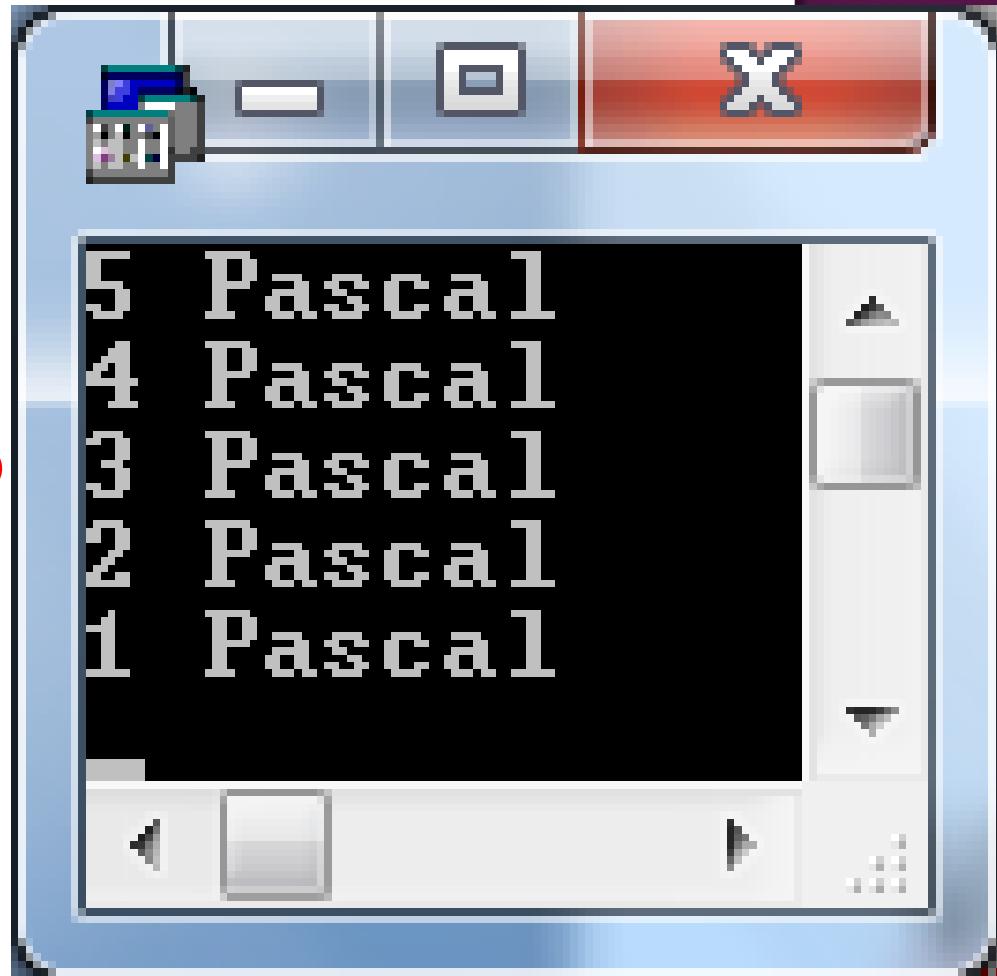
Begin

Write (I);

Writeln ('Pascal');

End ;

End.



FOR TERSARANG

Var

I, J : integer ;

Begin

For I : = 1 **to** 5 **do**

Begin

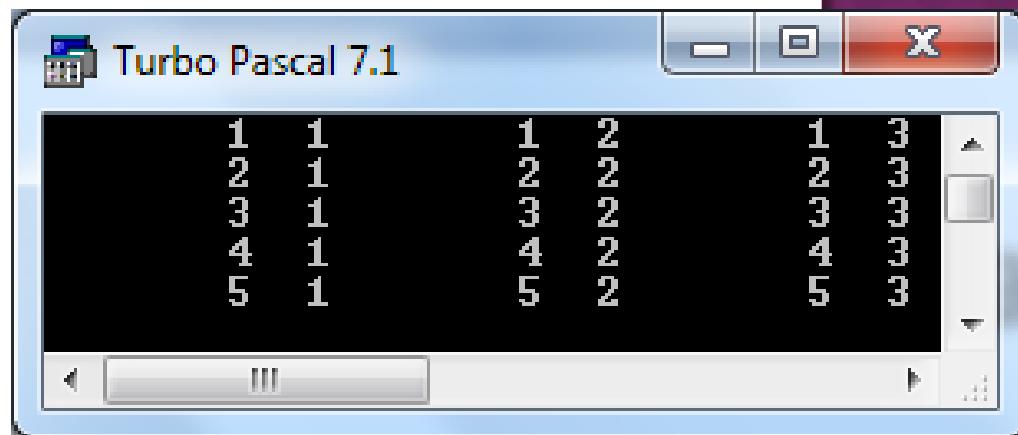
For J : = 1 **to** 3 **do**

Write (I : 8, J : 3);

Writeln ;

End ;

End.



FOR

- Pernyataan ini digunakan bila **kondisi pengulangan itu sudah diketahui lebih dahulu**, berapa kali proses pengulangan itu harus terjadi.

WHILE & REPEAT

- WHILE dan REPEAT digunakan bila **tidak diketahui dengan pasti jumlah proses pengulangan**

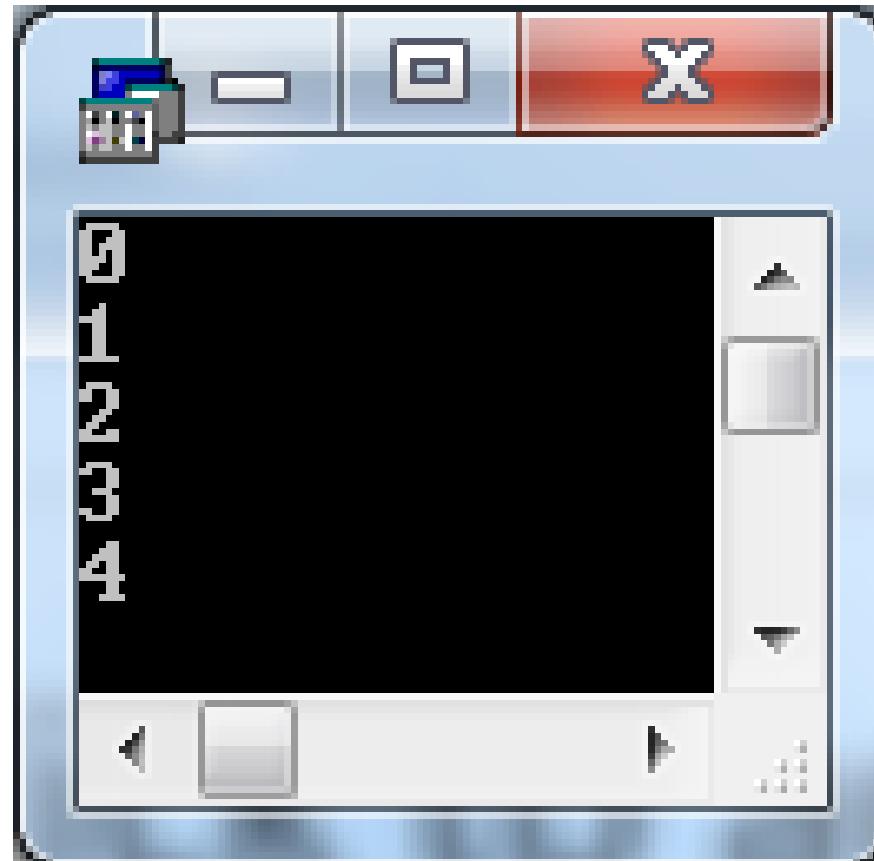
WHILE DO....

- Melakukan proses perulangan terus menerus **selama kondisi ungkapan pada while masih bernilai benar**

```
Var  
  I : integer ;
```

```
Begin  
  I := 0 ;  
  While I < 5 do  
    Begin  
      Writeln (I);  
      I := I + 1 ;
```

```
    End ;  
End.
```



REPEAT UNTIL

- Melakukan proses perulangan terus menerus sampai kondisi (until) bernilai benar

Bentuk Umum

REPEAT statemen UNTIL ungkapan

CONTOH REPEAT..UNTIL..

Var

I : integer ;

Begin

I : = 0 ;

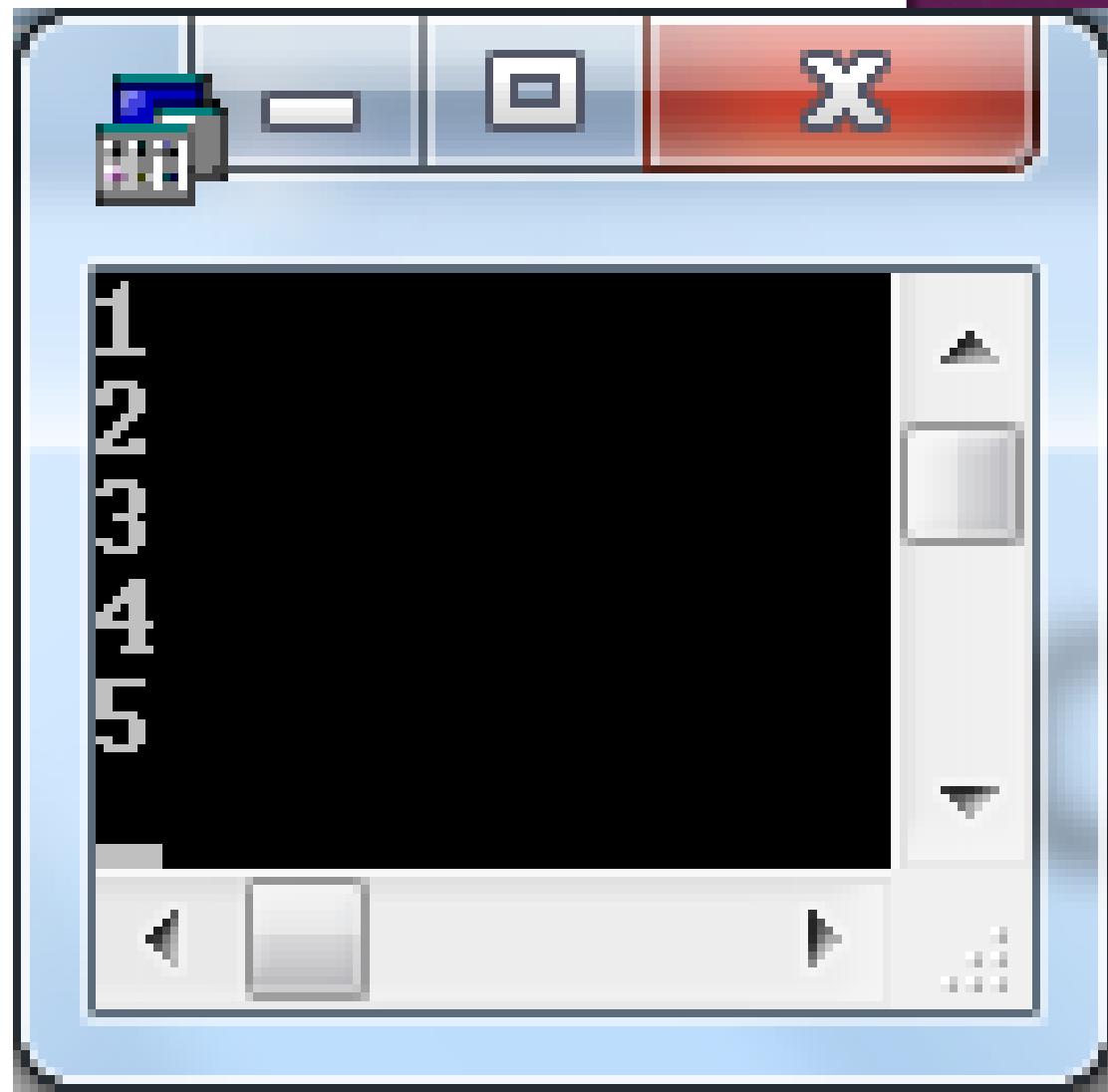
Repeat

I : = I + 1 ;

Writeln (I) ;

Until I = 5;

End.



WHILE VS REPEAT

- Kondisi diperiksa di awal
- Paling sedikit 0 kali perulangan
- Kondisi diperiksa di akhir
- Paling sedikit 1 kali perulangan

While

Repeat

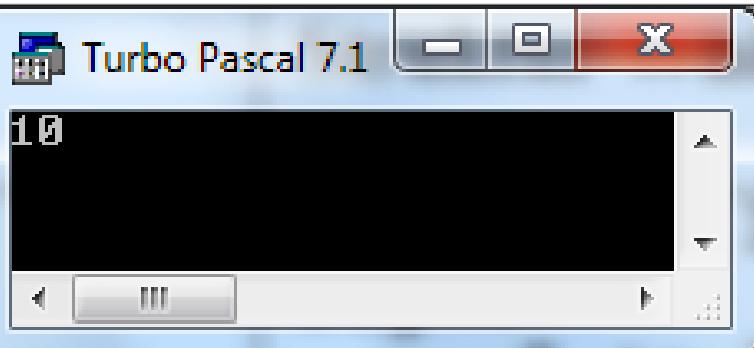
REPEAT..UNTIL.. VS WHILE..DO..

Struktur Repeat – Until

```
Var   I : Integer ;  
Begin  
    I := 10 ;  
    Repeat  
        writeln ( I ) ;  
        I := I + 1 ;  
    Until I > 5 ;  
End.
```

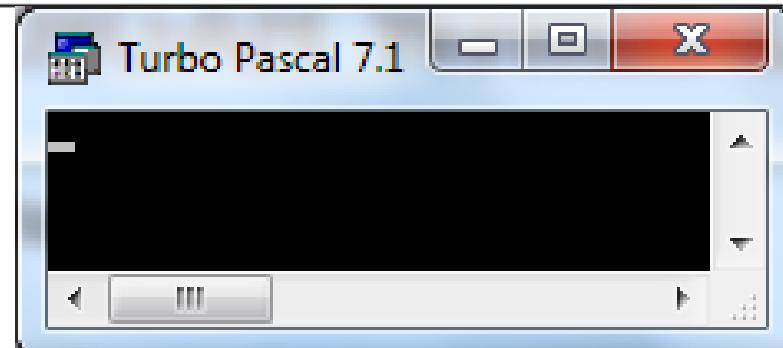
Struktur While-Do

```
Var   I : Integer ;  
Begin  
    I := 10 ;  
    while I < 5 Do  
    Begin  
        writeln ( I ) ;  
        I := I + 1 ;  
    End;  
End.
```



The screenshot shows the Turbo Pascal 7.1 IDE interface with a code editor window. The code displays a repeat-until loop that prints the value of variable I (which starts at 10) until it is greater than 5. The output window below shows the number 10, indicating the loop has not yet started.

```
10
```



The screenshot shows the Turbo Pascal 7.1 IDE interface with a code editor window. The code displays a while-do loop that prints the value of variable I (which starts at 10) while it is less than 5. The output window below shows a single dash character, indicating the loop has already completed because I is no longer less than 5.

```
-
```



Turbo Pascal 7.1



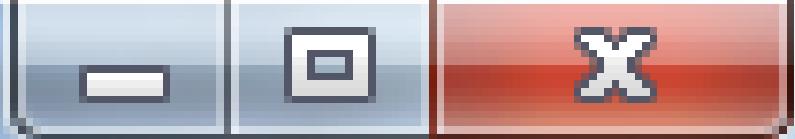
File Edit Search Run Compile Debug Tools Op

[] NONAME00.PAS

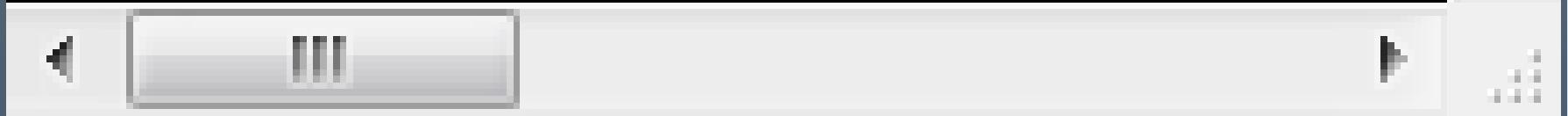
```
uses crt;
var
  i,n:integer;
begin
  clrscr;
  write ('Banyak Cacah Data = ');
  readln (n);
  i:=1;
  repeat
    writeln ('Bahasa Pascal Gampang Ya??');
    i:=i+1;
  until i>n;
  readln;
end.
```



Turbo Pascal 7.1



Banyaknya Pengulangan = 5
Bahasa Pascal Gampang Ya??
Bahasa Pascal Gampang Ya??



SOAL

- Buat program perulangan sederhana yang menampilkan nama dan nim yang diinputkan user.
- Program akan berhenti/keluar apabila pertanyaan dijawab dengan karakter ‘Y’

