



Programming Constructs







Objectives

- Declaring and Defining Variables
- Blocks in SQLServer
- Selection Statements
- Iteration Statements







Using Variables





Declare Keyword

• The Declare keyword enables you to declare several variables within a single statement.

```
declare @name1 char(30)
declare @lname varchar(30), @salary money
```

Initializing Variable

```
declare @Iname varchar(30)
select @Iname ='smith'
declare @fname char(30)
set @Iname ='billy'
```





Retrieving Data into Local Variables

• Variables often store data that has been retrieved from database.

```
declare @Iname varchar(30), @salary decimal select @Iname = last_name, @salary =salary from employees where employee_id = 110 print @Iname print @salary
```

• Using local variables in SQL statements:

```
declare @empid int =7839
select * from employee where employee_id =@empid
```







BEGIN and **END** Statements

• Transact SQL (TSQL) uses the BEGIN and statements to signify begin and end of a block.

BEGIN

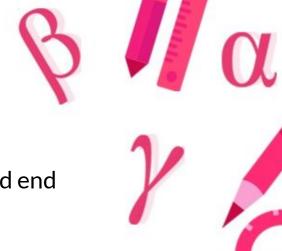
Statement1

Statement2

Statement3

•••••

END







IF ... ELSE Statements

• The IF...ELSE statement is a control-flow statement that allows you to execute or skip a statement block based on a specified condition.

IF Boolean_expression

BEGIN

-- Statement block executes when the Boolean expression is TRUE

END

ELSE

BEGIN

-- Statement block executes when the Boolean expression is FALSE

END

END





IF ... ELSE Statements

• Example:

```
declare @age int = 15;
if @age > 18
     print 'eligible to vote'
else
     print 'not eligible to vote'
```







```
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```

```
declare @vdeptid int
declare @vempid int
set @vempid=110
select @vdeptid =department id
from employee
where employee_id =@vempid
if @vdeptid =10
   begin
        print @vdeptid
       update employee set
       salary =salary+1000 where
       employee_id=@vempid
   end
```

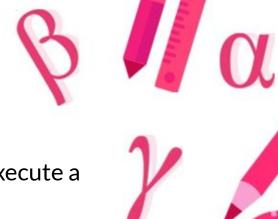




While Statement

• The WHILE statement is a control-flow statement that allows you to execute a statement block repeatedly as long as a specified condition is TRUE.

```
declare @vcount int =0
while @vcount <=5
begin
    print @vcount
    set @vcount =@vcount +1
end</pre>
```









THANK YOU!

