Cursor In MSSQL : *is a database object is used to retrieve data from a Result Set -- 1 row at a time*

* Is A Temporary Memory ||| Temporary Work Station.
* This Temporary Memory (Cursor) MSSQL Create hotaa
* Cursor (temporary) is allocated by MSSQL at DML Time. So it increate performance as well as.
* We Can perform on 1 by 1 Row. If 5 rows are in table . so we can Perfomr 5 different operation Table Rows

**Cursor**

1. **Implicit Cursor : (automatically)**

***Default : by default Implicit Cursor hotaa han.***

***Automatically : these are System Cursor . Automaticlly created hotaa han***

***-- jb hum select krtaa han -🡪 Automaticly create ho gataa ha***

SELECT FirstName, LastName

FROM Employees

1. **Explicit Cursor : (Manually) ------ Important**

***User Defined : User khod saa New Cursor bnaataa han.***

***Fetching data: cursor fetch data row by row***

**Syntax of Cursor**

---\_\_\_\_\_\_\_\_\_\_\_ Syntax Create Cursor \_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare cursorName cursor

scroll for u r Table Recors

open cursorName

--- code of line to perform here ---

close cursorName

deallocate cursorName

**Methods of Cursor**

**Practice table**

create table Employees(

id int primary key identity,

name varchar(25),

joining\_date date

)

insert into Employees values ('Zain','2021-05-3 01:26:29.623'),('Amir','2022-06-15 02:26:29.623'),

('Sufyan','2020-01-1 05:26:29.623'),('Ali','2019-05-3 11:26:29.623'),('Fazal','2021-05-3 03:26:29.623'),

('Fazal','2020-05-3 04:26:29.623'),('Huzaifa','2022-05-3 01:26:29.623'),('Nasir','2023-05-3 04:26:29.623'),

('Anum','2018-05-3 09:26:29.623'),('Akram','2022-05-3 01:26:29.623')

select \* from Employees

1. ***First : 1st Record***

------\_\_\_\_\_\_ first Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

--\_\_ fetch 1st row \_\_\_

fetch first from myCursor

close myCursor

deallocate myCursor

--- find 1st top salery

declare myCursor cursor

scroll for select \* from Employees order by salary desc

open myCursor

--\_\_ fetch 1st row \_\_\_

fetch first from myCursor

close myCursor

deallocate myCursor

1. ***Last : last Record***

------\_\_\_\_\_\_ fetch last Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

fetch last from myCursor

close myCursor

deallocate myCursor

1. ***Next : fetch Next Record***

------\_\_\_\_\_\_ fetch Next Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

--- Fist ---

fetch first from myCursor

--- Next ---

fetch next from myCursor

close myCursor

deallocate myCursor

1. ***Prior : fetch Previous Record***

------\_\_\_\_\_\_ fetch Netxt/ preview Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

--- Fist ---

fetch first from myCursor

--- Next ---

fetch next from myCursor

fetch next from myCursor

--- Preview ---

fetch prior from myCursor

close myCursor

deallocate myCursor

1. ***Absolute n : to get Specific Row form Nth Record its only +() values***

------\_\_\_\_\_\_ fetch absolute Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

fetch absolute 4 from myCursor

close myCursor

deallocate myCursor

1. ***Relative n : it can be –() +() value***

------\_\_\_\_\_\_ fetch relative Record \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--\_\_\_\_\_ Positive \_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

-- absolute

fetch absolute 3 from myCursor

-- relative Absolute ka Sath Work krtaa han

fetch relative 4 from myCursor

close myCursor

deallocate myCursor

--\_\_\_\_\_ Positive \_\_\_

declare myCursor cursor

scroll for select \* from Employees

open myCursor

-- absolute

fetch absolute 3 from myCursor

-- relative Absolute ka Sath Work krtaa han

fetch relative -1 from myCursor

close myCursor

deallocate myCursor

**Using of Cursor**

1. **Without Variables**

***Above Examples are Without Variable***

***2. With Variable (importent)***

--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Variable Cursor \_\_\_\_\_\_\_\_\_\_\_\_\_

declare myCursor cursor

--- select those record which we want to Show

scroll for select id,name from Employees

--- declare Variables

declare @emp\_id int , @emp\_name varchar(50)

open myCursor

--- Fist ---

fetch first from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

--- Next ---

fetch next from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

--- last ---

fetch last from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

--- Preview ---

fetch prior from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

-- absolute ---

fetch absolute 3 from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

-- relative Absolute ka Sath Work krtaa han ---

fetch relative 4 from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

-- relative Absolute ka Sath Work krtaa han ---

fetch relative -1 from myCursor into @emp\_id , @emp\_name

print 'Id Name is : '+ cast(@emp\_id as varchar(10)) + ' ' + @emp\_name;

close myCursor

deallocate myCursor