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## WHAT IS CURSOR ?

Cursor is a pointer in memory area called context area.

## WHAT IS CONTEXT AREA ?

Context area is a memory area inside the Process Global Area (PGA) which helps Oracle server in processing an SQL statement by holding the important information about the statement.

This information include:

1. Rows returned by a query.
2. Number of rows processes by a query.
3. A pointer to the parsed query in the shared pool.

Using cursor we can control the context area as it is a pointer to the same.

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## TYPES OF CURSORS:

1. Implicit cursors
2. Explicit cursors

### 1. Implicit cursors:

1. Automatically gets created by Oracle server when DML SQL statement gets executed.
2. Users can not control the behavior of these cursors.
3. Created in background for any PL/SQL block which executes an SQL statement.

### 2. Explicit cursors:

1. User defined cursors which means user has to create this cursor for any statement.
  2. Unlike implicit cursor user has full control over explicit cursor.
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## CREATE AN EXPLICIT CURSOR:

This can be done in 4 steps-

1. Declare
2. Open
3. Fetch
4. Close

In case of implicit cursor Oracle performs all these steps automatically for us.

## 1. Declare cursor:

Declaring a cursor means initializing a cursor into memory.

Syntax,

```
CURSOR cursor_name IS select_statement;
```

## 2. Open cursor:

- In order to put the cursor at work we have to open it first.
- When we open the cursor the memory will be allotted to it., and it set put to the next step which is fetching the data from it.

Syntax,

```
OPEN cursor_name;
```

### 3. Fetch cursor:

The process of retrieving the data from the cursor is known as fetching the cursor.

Syntax,

```
FETCH cursor_name INTO PL/SQL variable;Or  
FETCH cursor_name INTO PL/SQL  
record;
```

### 4. Close cursor:

Closing statement of a cursor will releases all the resources associated with it.

Syntax,

```
CLOSE cursor_name;
```

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## EXAMPLE OF A CURSOR:

```
DECLARE  
CURSOR cursor_name IS select_statement;  
BEGIN  
OPEN cursor_name;
```

```
FETCH cursor_name INTO PL/SQL variable;  
CLOSE cursor_name;  
END;
```