LOOP

Loop is a section of code in a program which is executed repeatedly until a specific condition is satisfied.

There are 3 Types of Loop

1. For
2. While
3. Do … while

FOR LOOP

SYNTAX

```
For (initialize counter; condition; parameter)
{
Statement
}
```

Initialize counter: uses the assignment operator for setting the starting point of the loop

Condition: uses logical operation to explain how the loop should be performed and the number of times the loop should go.

Re-evaluation Parameter: This counts the number of times a loop should be performed.

Rules

- Each syntax must be terminated with a semi-column
- The loop continue as long as the condition is tested TRUE
- The statement following the FOR LOOP can either be SIMPLE or COMPOUND statement
- Once the LOOP is tested FALSE the program resumes on the LOOP following the statement
- The loop conditions are enclosed in a bracket and is NOT terminated with a semi-column

NESTED FOR LOOP: When there are two or more LOOPS

SYNTAX

```
For (initialize counter; condition; parameter)
{
Statement
}
For (initialize counter; condition; parameter)
{
Statement;
}
```

THE WHILE: This work exactly like the FOR LOOP

SYNTAX

```
While (condition is true)
{
Statement;
}
```

DO … WHILE: This performs the Instruction or statement before applying the condition

SYNTAX

```
Do
{
Statement;
}
While
(condition);
```

Here, the condition is terminated with a semi-column

THE JUMP STATEMENT

1. **RETURN EXPRESSION**

- **It is use to return from a function**
- **It is causes execution to be returned to the point at which the call to function was made**
- **The return statement can return a value the program**

2. **GOTO LABEL**

- **It transfer control to any other statement within the same function**
- **It violate rules of a structured programming**
- **It is difficult to maintain and reduces program reliability**

3. **BREAK STATEMENT**

- **It is use to terminate a CASE in SWITCH statement**
- **It is use to terminate LOOP and the control is passed to the next statement following the LOOP**

4. **THE EXIST () FUNCTION**

- **The exist function is use to terminate the program completely**