

MORE ON PYTHON

CLASS VII
CH-6 PERIOD -5

CHANGING YOUR TOMORROW

OUTCOME OF THE CLASS

- ***TYPES OF CONTROL STRUCTURE***

- ***IF Statement***

- ***If----else statement***

- ***problems***

TYPES OF CONTROL STRUCTURE

- There are three types of control statement
- 1. Sequential statement
- 2. Conditional statement
- 3. Iterative statement
- **1. Sequential statement**
- In sequential construct, the statements are executed in a sequential order, where one instruction is followed by other.
- **Conditional statement** it cause the program control to transfer to a specific location depending on the outcome of the conditional expression.

Every decision involves a choice between the two alternatives **Yes** and **No** result.

- **. Iterative statement** : These statement enables the execution of set of statements to be repeated till the condition is true. As soon as the condition becomes out of the loop and the loop stops.

if STATEMENT

The **if** statement is used when we have to evaluate only one condition. It performs a course of action if the condition evaluates to **true**, otherwise it skips the statements if the condition evaluates to **false**.

For example, your parents allow you to go out for playing only if you complete your homework.

Syntax:

```
if <condition>:
```

```
    Statement 1
```

```
    Statement 2
```

```
    .....
```

Remember, that after the **if** condition there is a **colon** and the condition body starts with an indentation of tab space. It is mandatory in Python to indent the statements in the condition body else it will display an error.

Let us understand this through a Python program:

Example

- WRITE A PYTHON PROGRAM TO INPUT TWO NUMBER AND DISPLAY THE GREATER ONE ?
- `X=int(input("Enter first no"))`
- `Y=int(input("enter second number"))`
- If `X>Y` :
- `Print(first no is greater")`
- If `Y>X` :
- `print("second no is greater")`

if...else STATEMENT

The **if... else** control structure is used when either of the two different actions is to be performed depending upon the result of the conditional expression. It contains two blocks of statements. In case the conditional expression evaluates to **true**, the statements in the 'if' block are executed, and if the result is **false**, then the statements in the 'else' block get executed.

For example, you can go out to play **if** it doesn't rain **else** you have to play indoor games.

Syntax:

if:

Statements Set1

else:

Statements Set2

Answer

- 1. WRITE DOWN A PYTHON PROGRAM TO INPUT A NUMBER DISPLAY IT IS EVEN NO OR ODD NUMBER.
- Ans.
- `X=int(input("enter a number"))`
- `if X %2 == 0 :`
- `printf("it is a even number")`
- `else :`
- `print("it is odd number")`

if...elif...else STATEMENT

Sometimes, we need to work with multiple conditions. In this case, only using **if-else** construct does not serve the purpose. The **if... elif... else** statements provide a compact way to perform multiple tests on a condition.

For example, when you visit a bank, you go to the counter according to the service you want to avail. If you want to deposit cash, you go to counter 1, if you want to enquire about the cheque, you go to counter 2, if you have to enquire for a savings plan, you go to counter 3, and so on.

Syntax:

```
if <condition1>:  
    statement set 1  
elif <condition 2>:  
    statement set 2  
else:  
    statement set 3
```

- 2. INPUT THREE NUMBERS DISPLAY THE GREATEST ONE
- `X=int(input("enter first number"))`
- `Y=int(input("enter second number"))`
- `Z=int(input("enter third number"))`
- If $X > Y$ and $X > Z$:
 - `print("first number is greatest",X)`
- elif $Y > Z$:
 - `print("Second number is greatest",Y)`
- else :
 - `print("Third number is greatest",Z)`

RECAP

- There are three types of control statement
- 1. Sequential statement
- 2. Conditional statement
- 3. Iterative statement

2. Types of Conditional statement

If statement

If-else statement

If-elif-else

HOME ASSIGNMENT

- 1. WRITE DOWN A PYTHON PROGRAM TO INPUT A NUMBER DISPLAY IT IS EVEN NO OR ODD NUMBER.
- 2. INPUT THREE NUMBERS DISPLAY THE GREATEST ONE
- 3. INPUT YOUR AGE DISPLAY WHEATHER YOU ARE ELIGIBLE TO CAST YOUR VOTE OR NOT.

THANKING YOU
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