PROBLEM SOLVING PROCESS

Class X

lab 6

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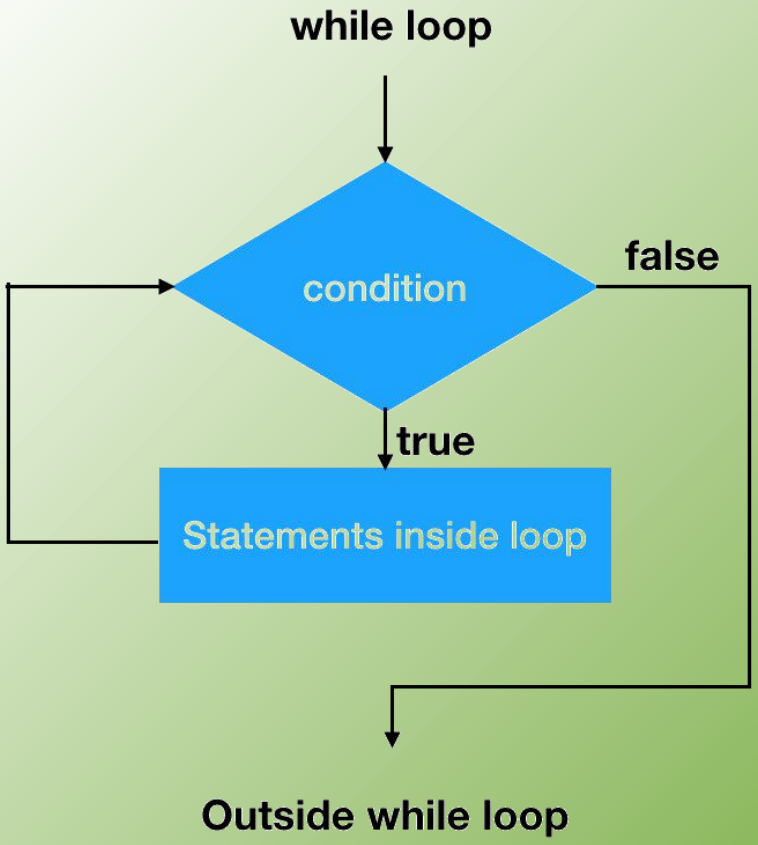
While Loop

a while loop is a control flow statement that allows code to be executed repeatedly based on a given Boolean condition



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Flowchart of while Loop

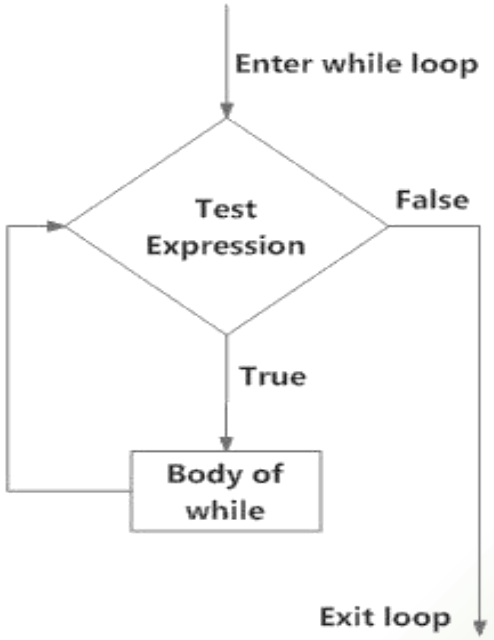

Fig: operation of while loop

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Example: while Loop

```
# Program to add natural
# numbers upto
# sum = 1+2+3+...+n

# To take input from the user,
# n = int(input("Enter n: "))

n = 10

# initialize sum and counter
sum = 0
i = 1

while i <= n:
    sum = sum + i
    i = i+1    # update counter

# print the sum
print("The sum is", sum)
```

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while loop with else

Same as that of for loop, we can have an optional else block with while loop as well

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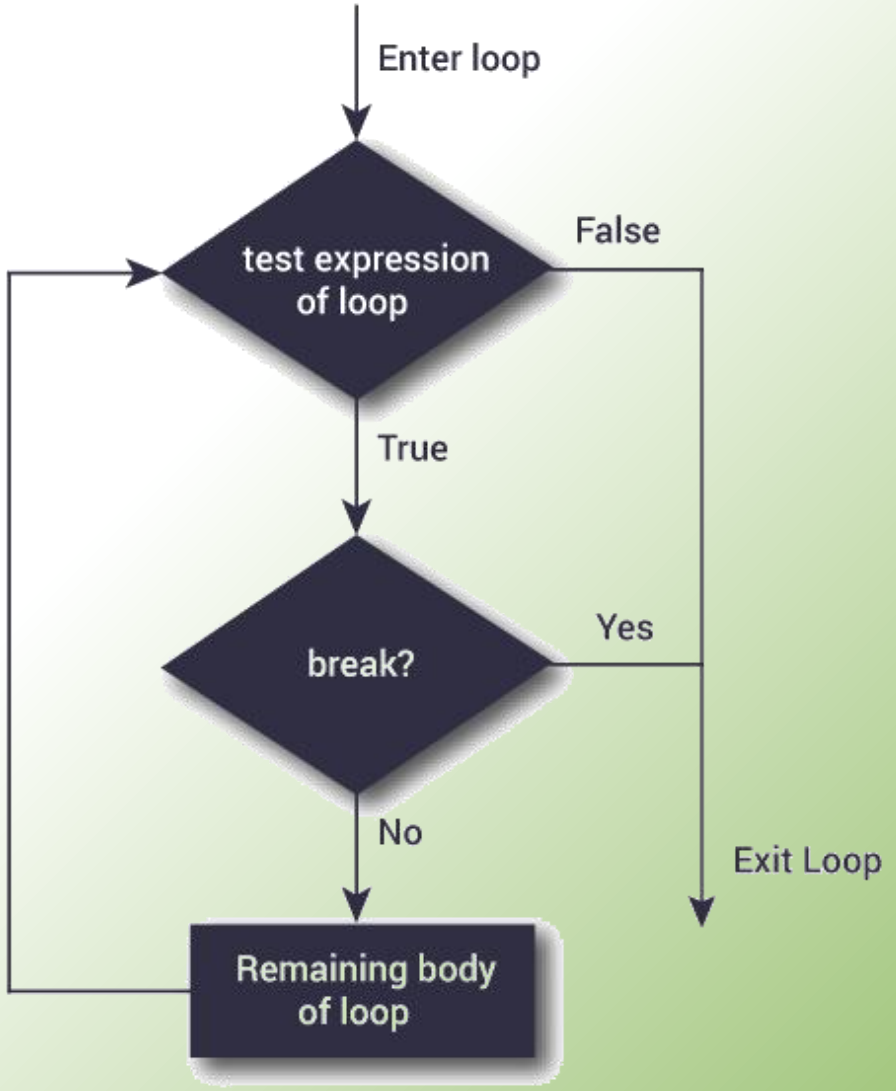
Flowchart of break



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Make a Toast

```
for var in sequence:
    # codes inside for loop
    if  condition:
        break
    # codes inside for loop

# codes outside for loop
```

```
while test expression:
    # codes inside while loop
    if  condition:
        break
    # codes inside while loop

# codes outside while loop
```

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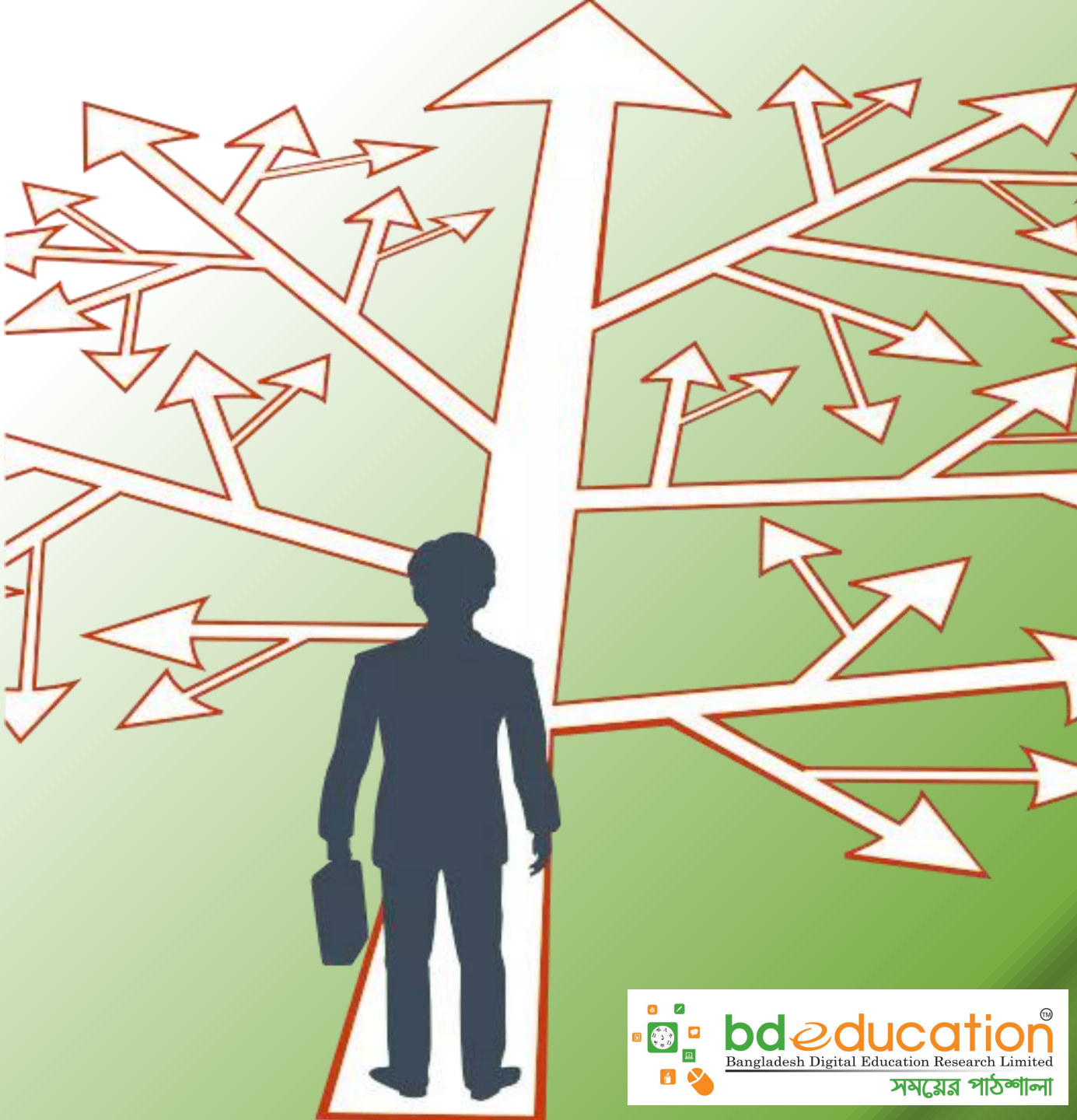

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