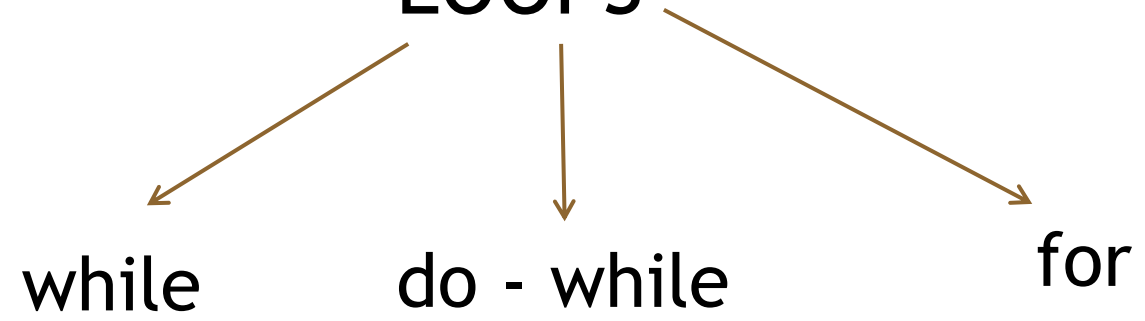
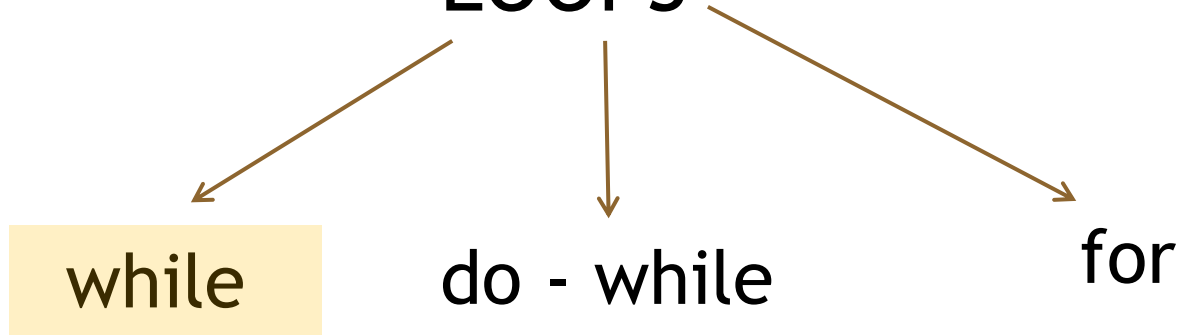


LOOPS



LOOPS

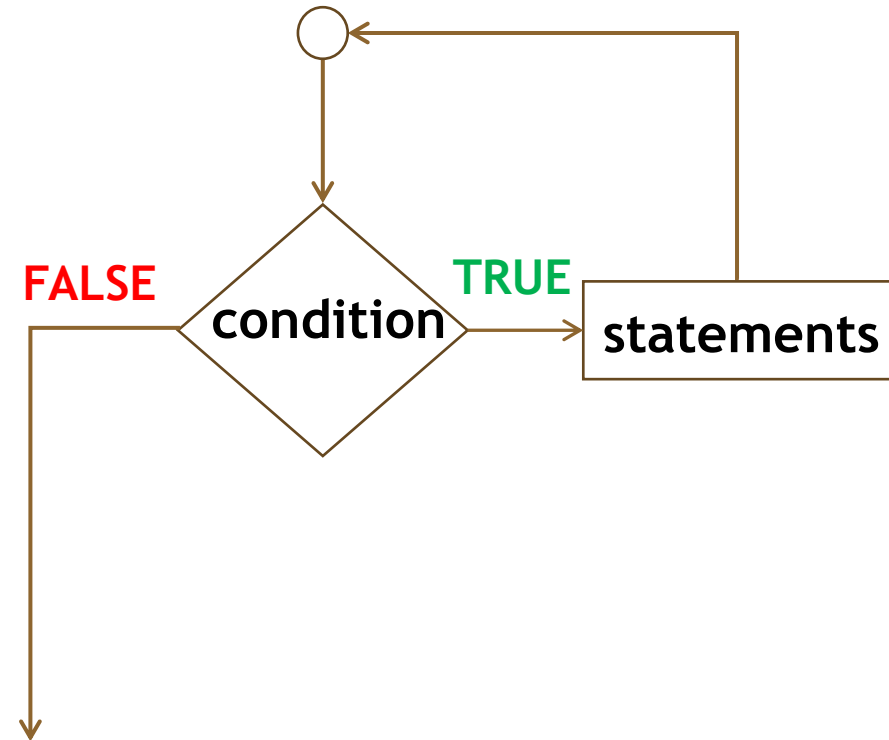


```
while ( condition )  
{  
    /* statements  
    ... */  
}
```

LOOPS

while

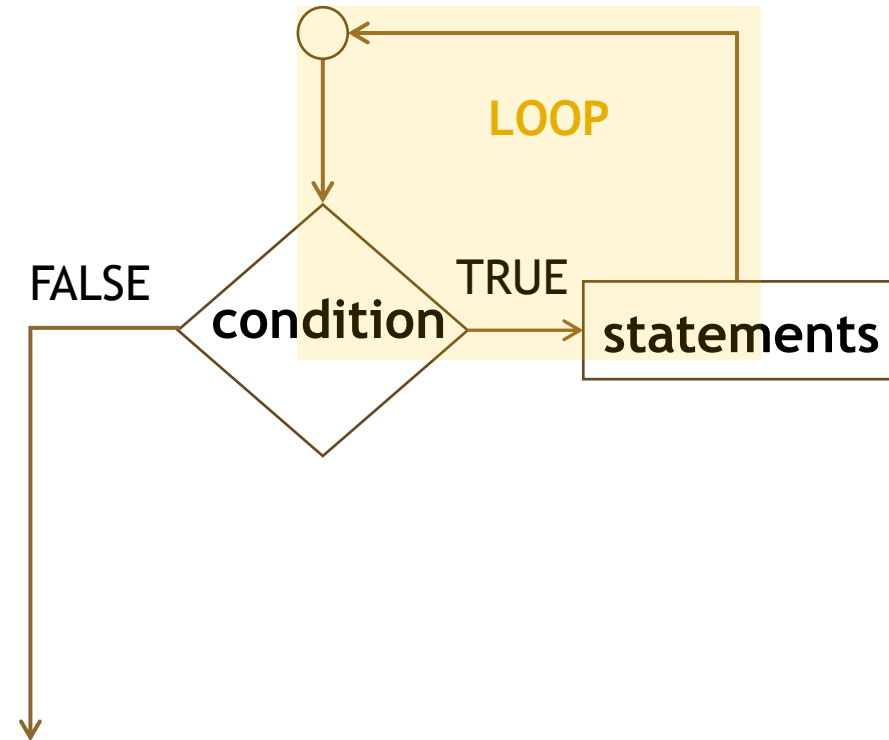
```
while ( condition )  
{  
    /* statements  
    ... */  
}
```



LOOPS

while

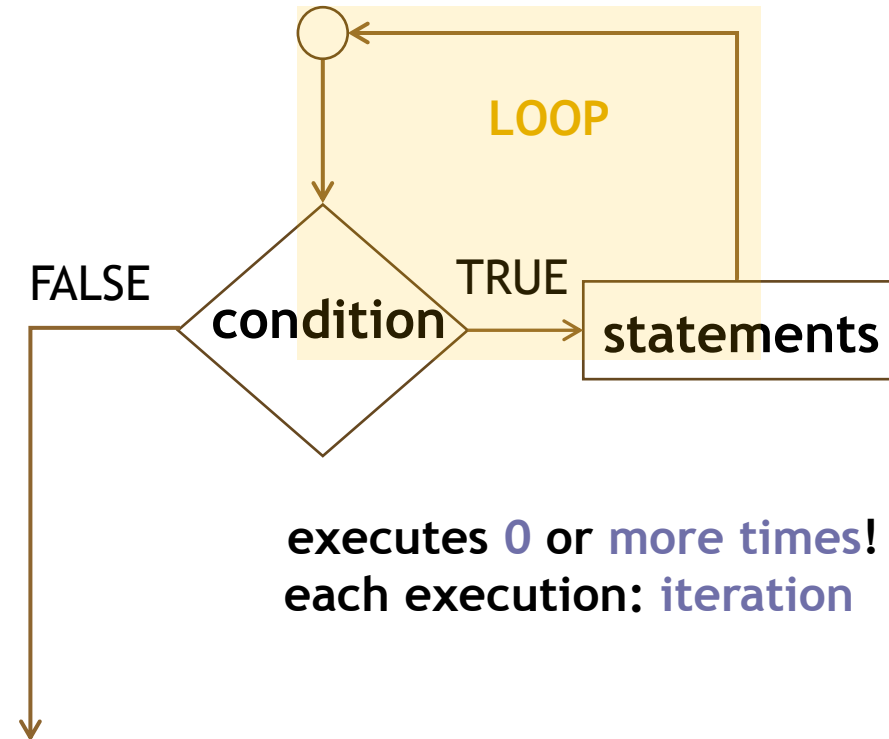
```
while ( condition )  
{  
    /* statements  
    ... */  
}
```



LOOPS

while

```
while ( condition )  
{  
    /* statements  
    ... */  
}
```



LOOPS

```
while ( condition ) initialize the loop control variable
{
    /* statements
    ... */
}
```

LOOPS

```
i = 0;  
while ( i <= 10)      initialize the loop control variable  
{  
    /* statements  
    ... */  
}
```

LOOPS

```
i = 0;
while ( i <= 10)
{
    /* statements
    ... */
    i +=1;
}
```

update the loop control variable

IF NOT, your code might stuck in
INFINITE LOOP!

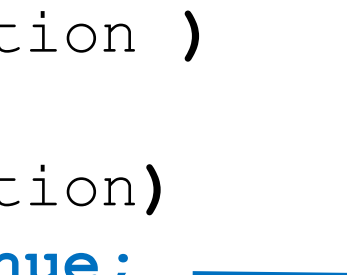
LOOPS

```
i = 0;           initialize
while ( i <= 10) test condition
{
    /* statements
    ... */
    i += 1;       update
}
```

LOOPS

while

```
while ( condition )  
{  
    if (condition)  
        continue;  
}
```

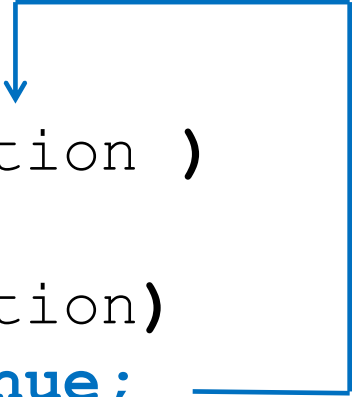


skips the rest of the loop &
continues to next iteration

LOOPS


while

```
while ( condition )  
{  
    if (condition)  
        continue;  
}
```



skips the rest of the loop &
continues to next iteration

```
while ( condition )  
{  
    if (condition)  
        break;  
}
```



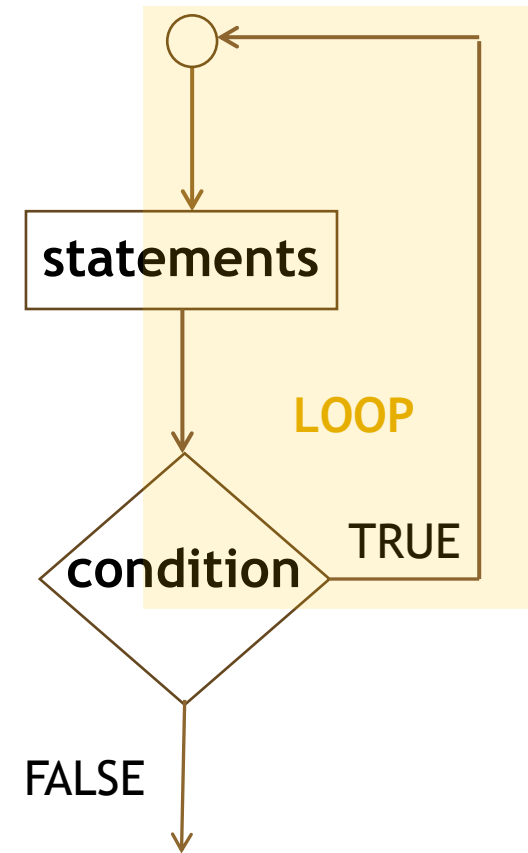
```
// statements below  
// while loop
```

terminates the loop

LOOPS

do - while

```
do
{
    /* statements
    ... */
} while ( condition )
```

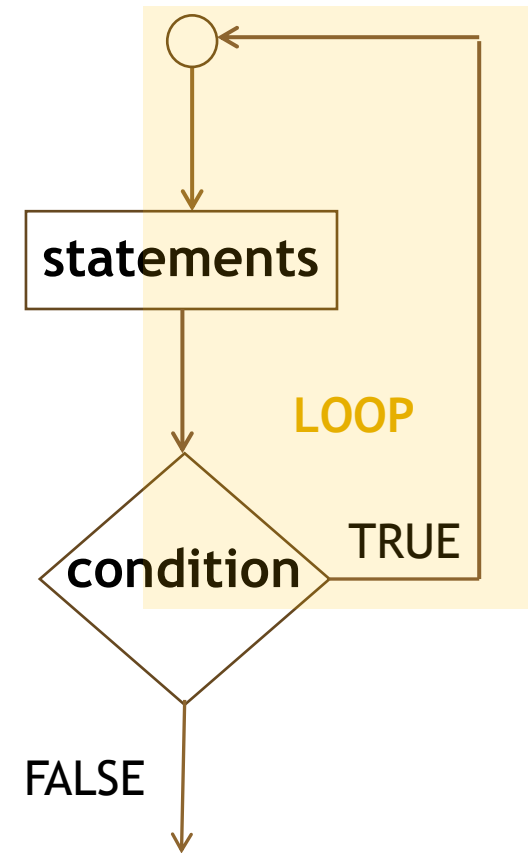


LOOPS

do - while

```
do
{
    /* statements
    ... */
} while ( condition )
```

executes 1 or more times!



LOOPS

for

```
for ( i = 1; i < n; i++) Equal to while
{
    /* statements
    ... */
}
```

LOOPS

```
for ( i = 1; i < n; i++)  
{  
    /* statements  
    ... */  
}
```

Labels for the for loop components:
- **initialize**: **i = 1**
- **test condition**: **i < n**
- **update**: **i++**

```
i = 0;  
while ( i <= 10)  
{  
    /* statements  
    ... */  
    i += 1;  
}
```

Labels for the while loop components:
- **initialize**: **i = 0**
- **test condition**: **i <= 10**
- **update**: **i += 1**