LOOP-FUNCTIONS.R

ADMIN

2024-02-25

## FOR LOOP  
for(i in 1:10)  
{  
 print(i)  
}

## [1] 1  
## [1] 2  
## [1] 3  
## [1] 4  
## [1] 5  
## [1] 6  
## [1] 7  
## [1] 8  
## [1] 9  
## [1] 10

for (i in 1:5) {  
 print(i + 1)  
}

## [1] 2  
## [1] 3  
## [1] 4  
## [1] 5  
## [1] 6

fact <- 1  
for(i in 1:10)  
{  
 fact <- fact \* i  
 print(paste(i,'factorial is',fact))  
}

## [1] "1 factorial is 1"  
## [1] "2 factorial is 2"  
## [1] "3 factorial is 6"  
## [1] "4 factorial is 24"  
## [1] "5 factorial is 120"  
## [1] "6 factorial is 720"  
## [1] "7 factorial is 5040"  
## [1] "8 factorial is 40320"  
## [1] "9 factorial is 362880"  
## [1] "10 factorial is 3628800"

#else if statement  
for(i in 1:10)  
{  
 if(i < 4)  
 {  
 print(paste(i, 'is less than 4'))  
 } else if(i < 7) {  
 print(paste(i, 'is less than 7 but not 4'))  
 } else {  
 print(paste(i, 'is neither'))  
 }  
}

## [1] "1 is less than 4"  
## [1] "2 is less than 4"  
## [1] "3 is less than 4"  
## [1] "4 is less than 7 but not 4"  
## [1] "5 is less than 7 but not 4"  
## [1] "6 is less than 7 but not 4"  
## [1] "7 is neither"  
## [1] "8 is neither"  
## [1] "9 is neither"  
## [1] "10 is neither"

## WHILE LOOP  
#while(logical\_condition){ expression }  
#FACTORIALS  
fact <- 1  
i <- 1  
while(i <= 10)  
{  
 fact = fact \* i  
 print(paste(i,'factorial is ',fact))  
 i <- i + 1  
}

## [1] "1 factorial is 1"  
## [1] "2 factorial is 2"  
## [1] "3 factorial is 6"  
## [1] "4 factorial is 24"  
## [1] "5 factorial is 120"  
## [1] "6 factorial is 720"  
## [1] "7 factorial is 5040"  
## [1] "8 factorial is 40320"  
## [1] "9 factorial is 362880"  
## [1] "10 factorial is 3628800"