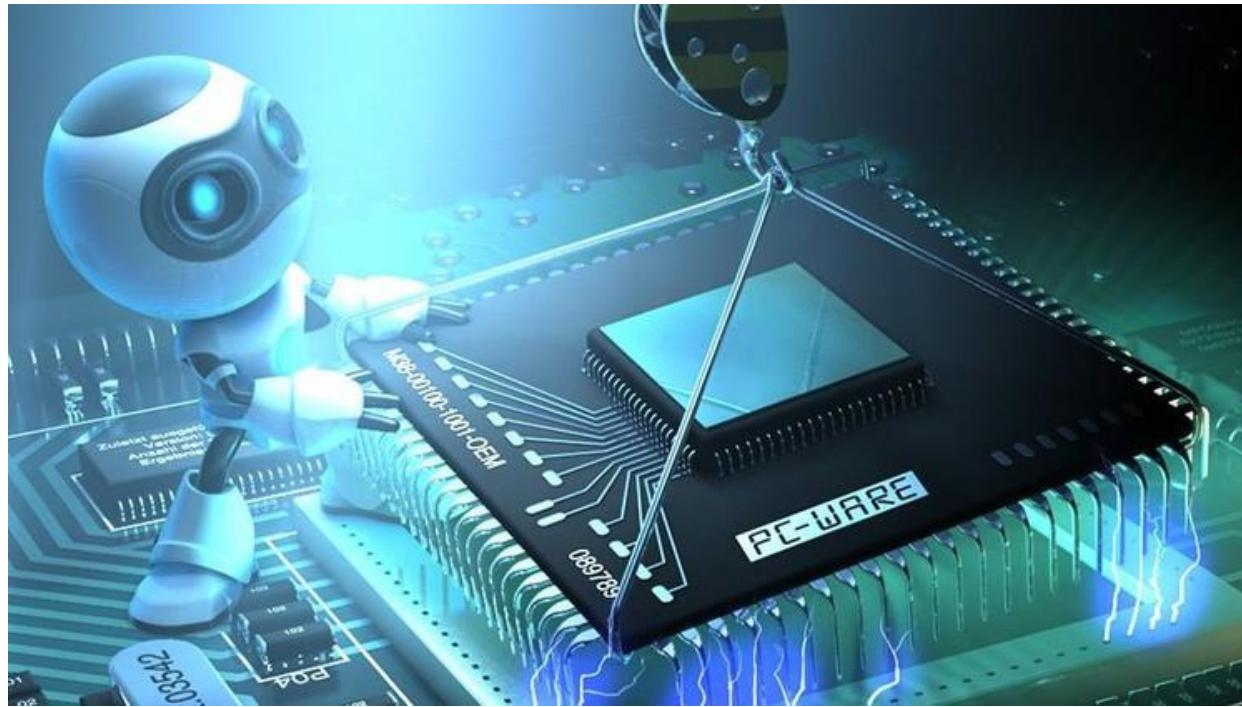


# Iterative Statement (DO-WHILE)



# Iterative Statement (DO-WHILE)



## MODEL:

```
do  
    BODY-DO  
    while(cond)
```

## Generic translation:

```
do:      BODY-DO  
        evaluate condition  
        j(meets) do  
end:
```

# Iterative Statement (DO-WHILE)



Example:

```
int CountA(char v[]) {  
    int i, count;  
    count = 0;  
    i = 0;  
    do {  
        if (v[i] == 'a') count++;  
        i++;  
    } while (v[i] != '.');  
    return count;  
}
```

# Iterative Statement (DO-WHILE)



## Example:

```
int CountA(char v[]) {  
    int i, count;  
    count = 0;  
    i = 0;  
    do {  
        if (v[i] == 'a') count++;  
        i++;  
    } while (v[i] != '.');  
    return count;  
}
```

## Translation:

```
CountA: pushl %ebp  
        movl %esp, %ebp  
        subl $8, %esp  
        movl $0, %eax # cont  
        movl $0, %edx # i  
do:    movl 8(%ebp),%ecx  
        cmpb '$a', (%ecx,%edx)  
        jne endif  
        incl %eax;  
endif: incl %edx  
        cmpb '$.', (%ecx,%edx)  
        jne do  
end:   movl %ebp, %esp  
        popl %ebp  
        ret  
# @v→8[%ebp]
```

# result in % eax

*Lucas Bazilio - Udemy*

# Iterative Statement (DO-WHILE)



## Example:

```
int CountA(char v[]) {  
    int i, count; 4  
    count = 0;  
    i = 0;  
    do {  
        if (v[i] == 'a') count++;  
        i++;  
    } while (v[i] != '.');  
    return count;  
}
```

## Translation:

```
CountA: pushl %ebp  
        movl %esp, %ebp  
        subl $8, %esp  
        movl $0, %eax # cont  
        movl $0, %edx # i  
do:      movl 8(%ebp), %ecx  
        cmpb '$a', (%ecx,%edx)  
        jne endif  
        incl %eax;  
endif:   incl %edx  
        cmpb '$.', (%ecx,%edx)  
        jne do  
end:    movl %ebp, %esp  
        popl %ebp  
        ret  
# @v→8[%ebp]
```

# result in % eax

*Lucas Bazilio - Udemy*

# Iterative Statement (DO-WHILE)



**Example:**

**v[] =** 'I have found a treasure in the sea.'



**i = 3**