



IF-ELSE STATEMENT

CONDITIONAL STATEMENT

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TOPIC OUTLINE

`if` Conditional Statement

`if-else` Conditional Statement

`if-elif-else` Conditional Statement

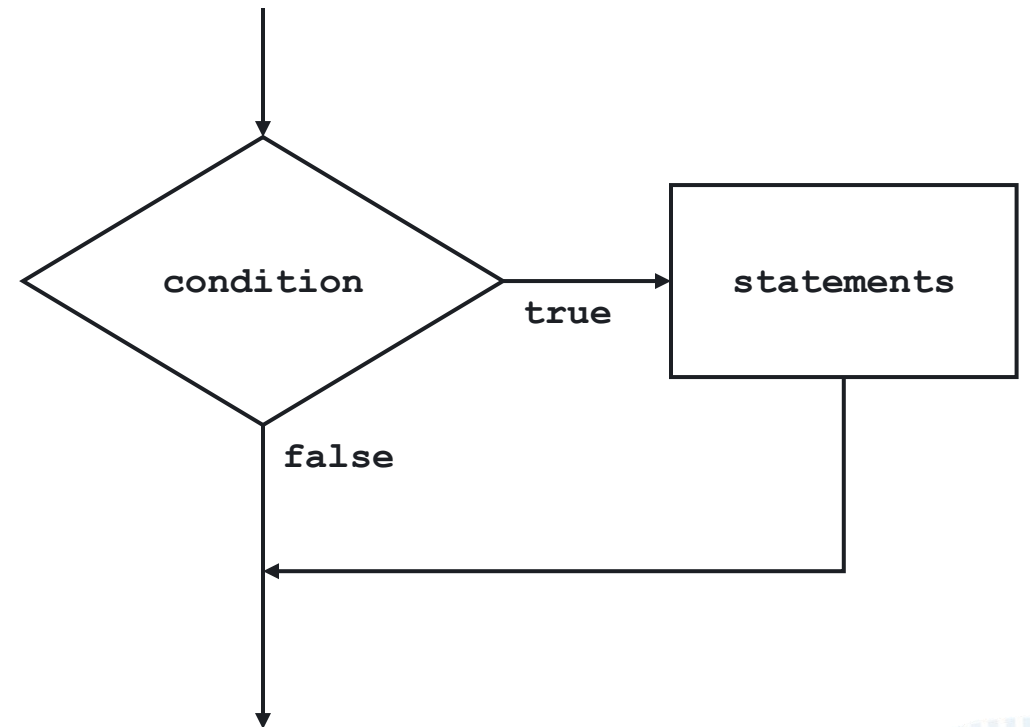


IF STATEMENT



IF STATEMENT

The **if** statement is a fundamental control flow statement that allows you to execute a block of code **conditionally** based on whether a specified condition evaluates to **True** or **False**.

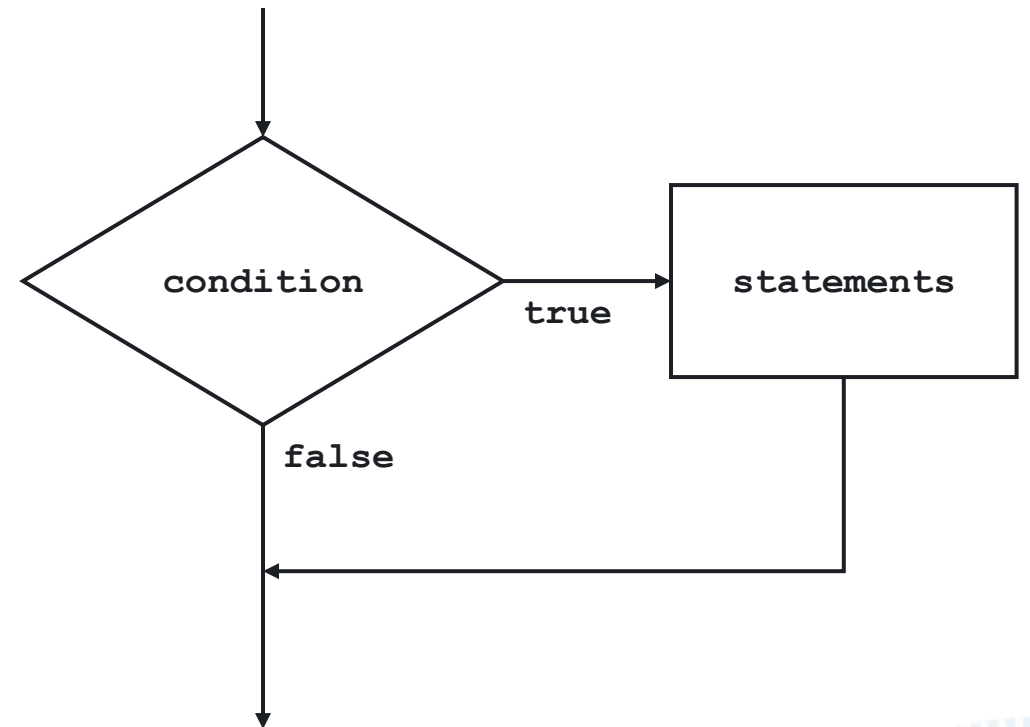


IF STATEMENT

Syntax of the `if` statement:

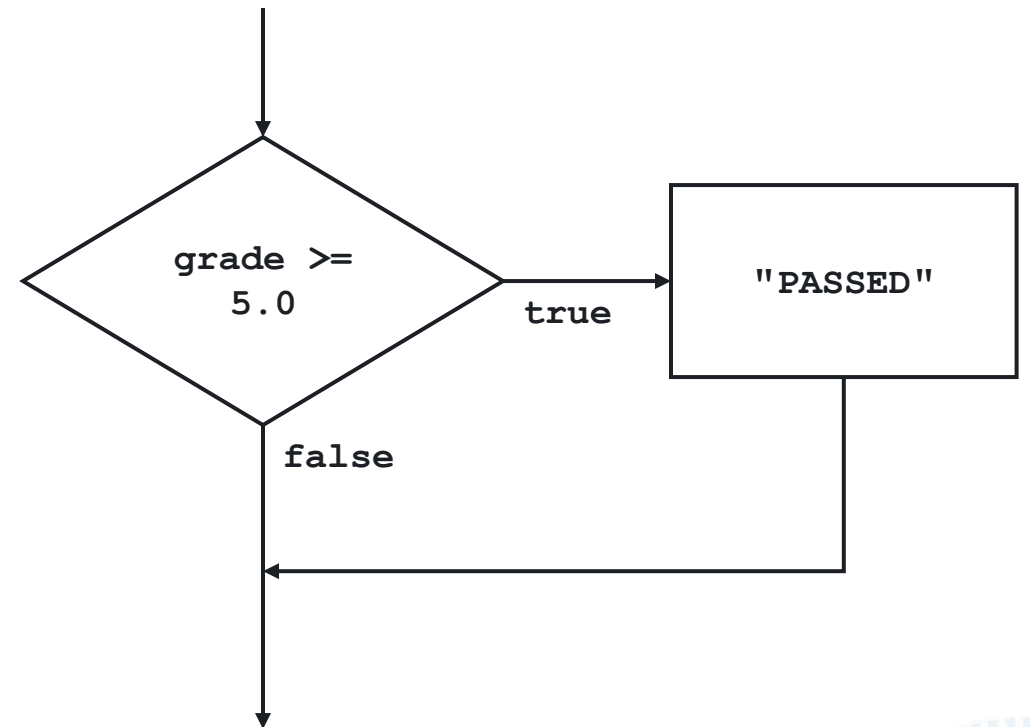
```
if condition:
```

```
    // code if the condition is true
```



EXERCISE

```
if grade >= 5.0:  
    print("PASSED!")
```

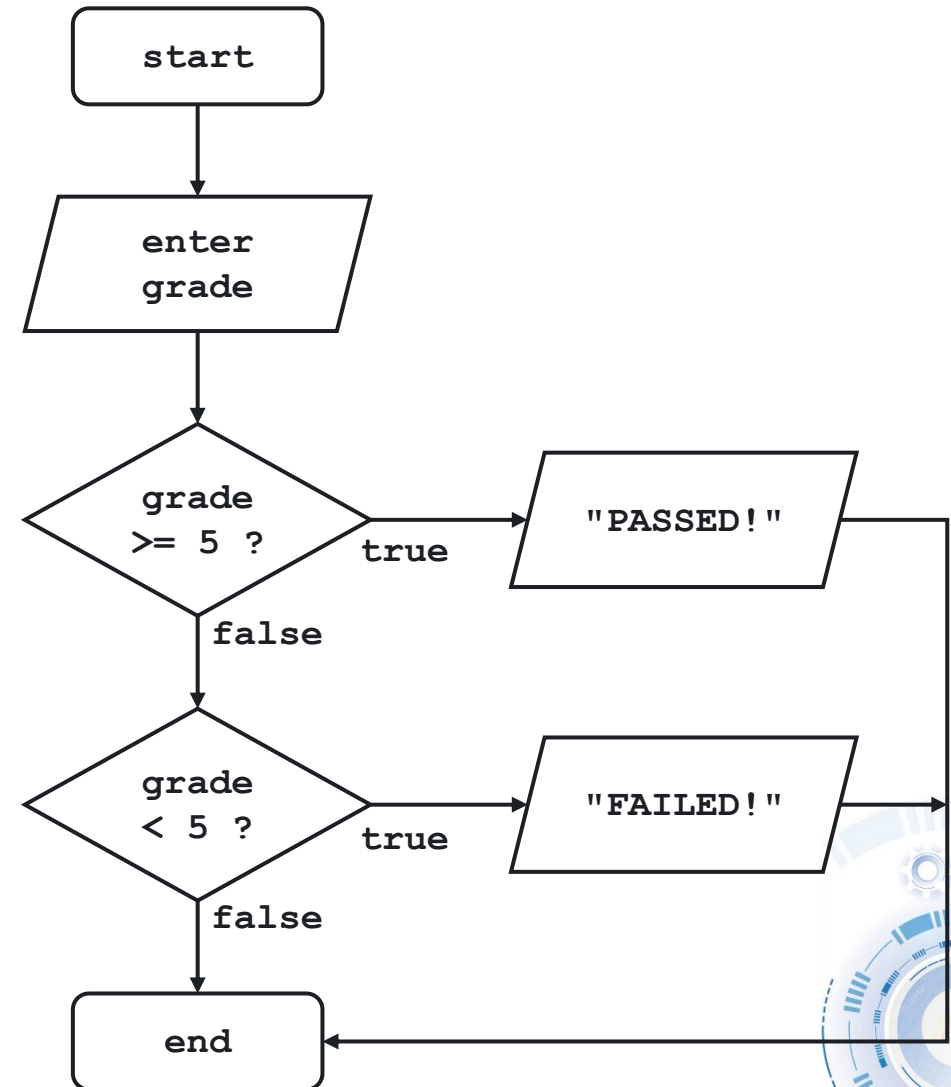


EXERCISE

```
grade = 4.5
```

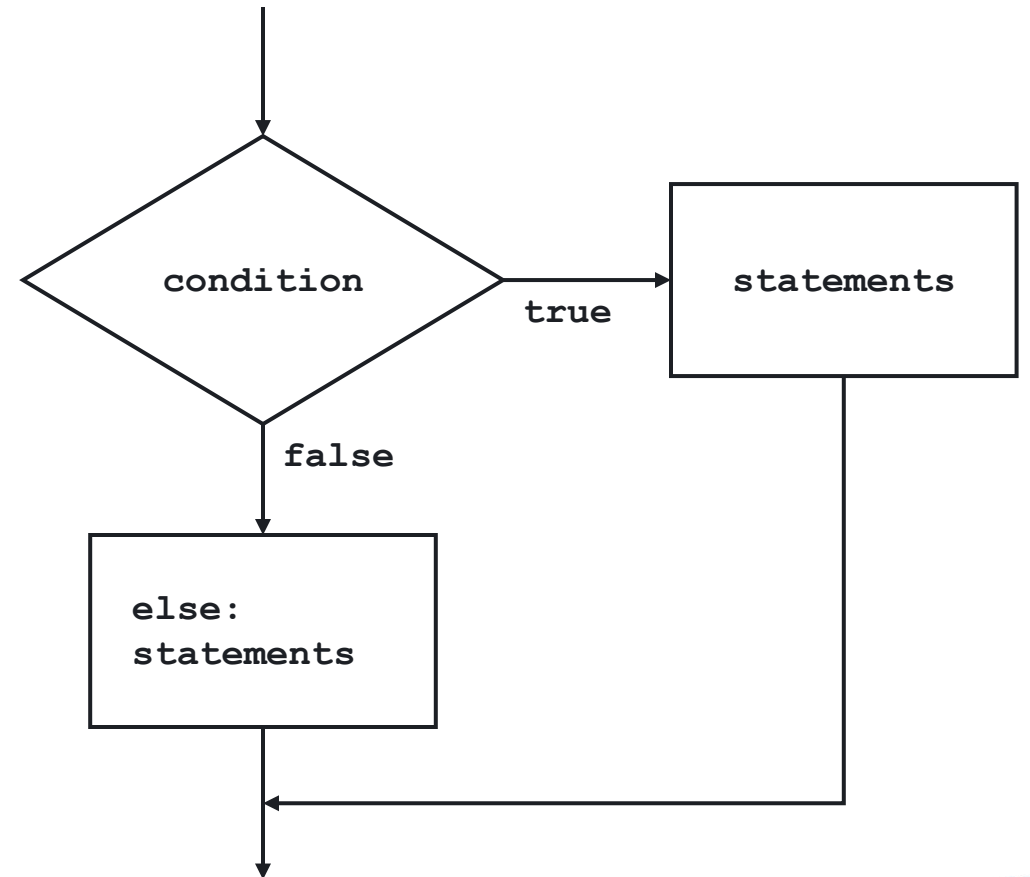
```
if grade >= 5.0:  
    print("PASSED!")
```

```
if grade < 5.0:  
    print("FAILED!")
```



IF-ELSE STATEMENT

The if-else statement extends the **if** statement by providing an alternative block of code to execute if the condition is **False**.



IF-ELSE STATEMENT

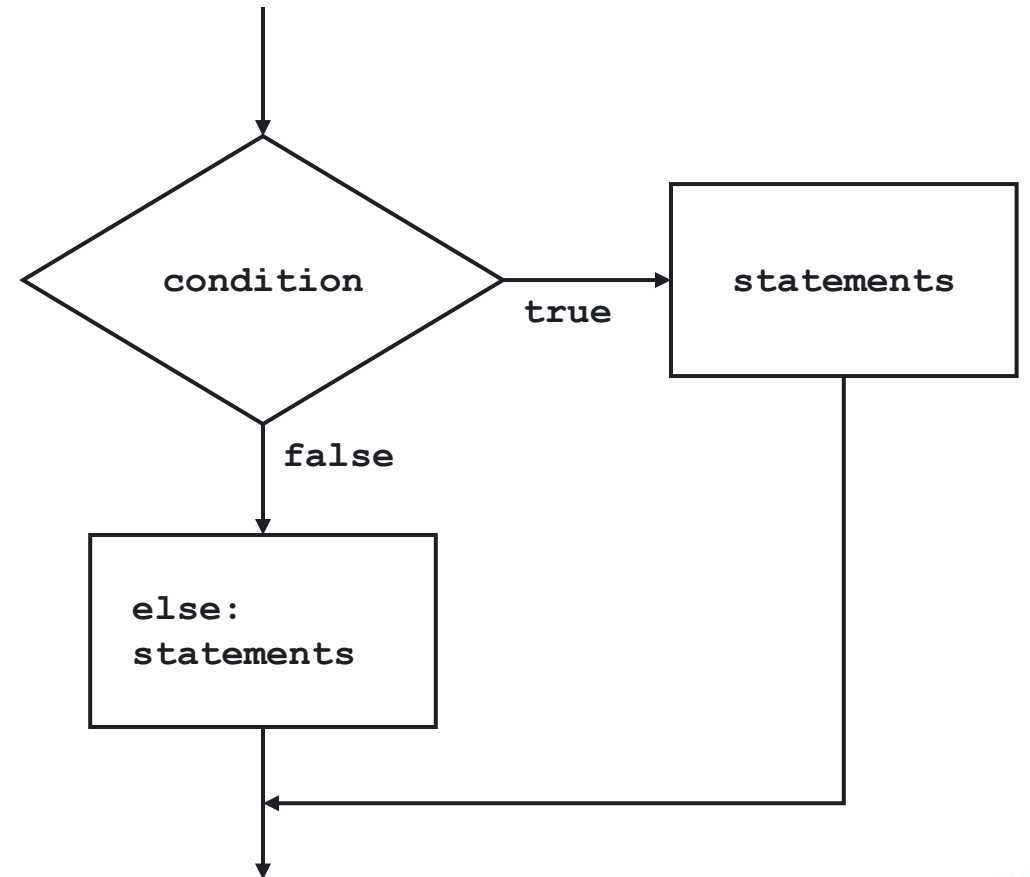
Syntax of the **if-else** statement:

```
if condition:
```

```
    // code if the condition is true
```

```
else:
```

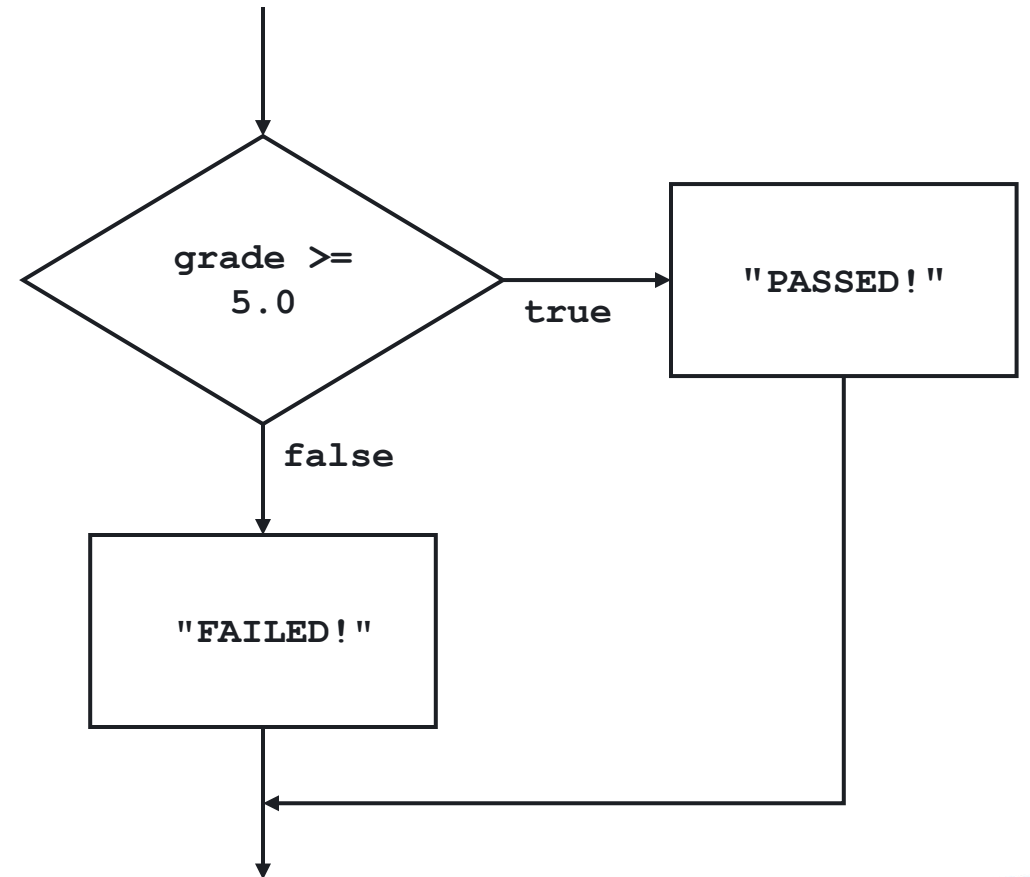
```
    // code if the condition is  
    false
```



EXERCISE

```
grade = 4.0
```

```
if grade >= 5.0:  
    print("PASSED!")  
else:  
    print("FAILED!")
```



CASCADING IF-ELSE STATEMENT

Syntax of the cascading if-else statement:

```
if condition 1:
```

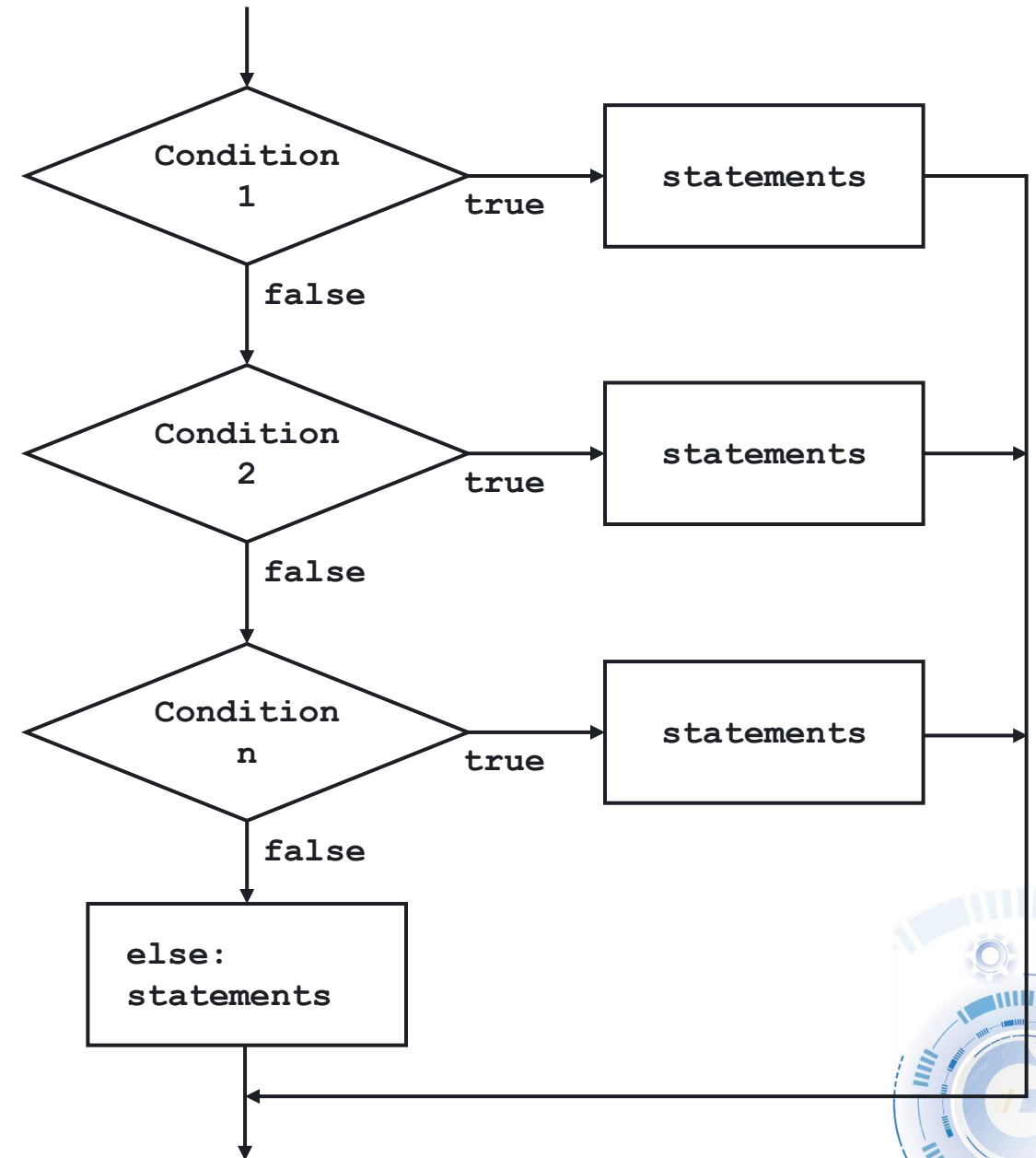
```
    // if the condition 1 is true
```

```
elif condition 2:
```

```
    // if the condition 2 is true
```

```
else:
```

```
    // if condition 1 and 2 are false
```



EXERCISE

```
grade = 2.9
```

```
if grade >= 5.0:
```

```
    print("PASSED!")
```

```
elif grade < 5.0:
```

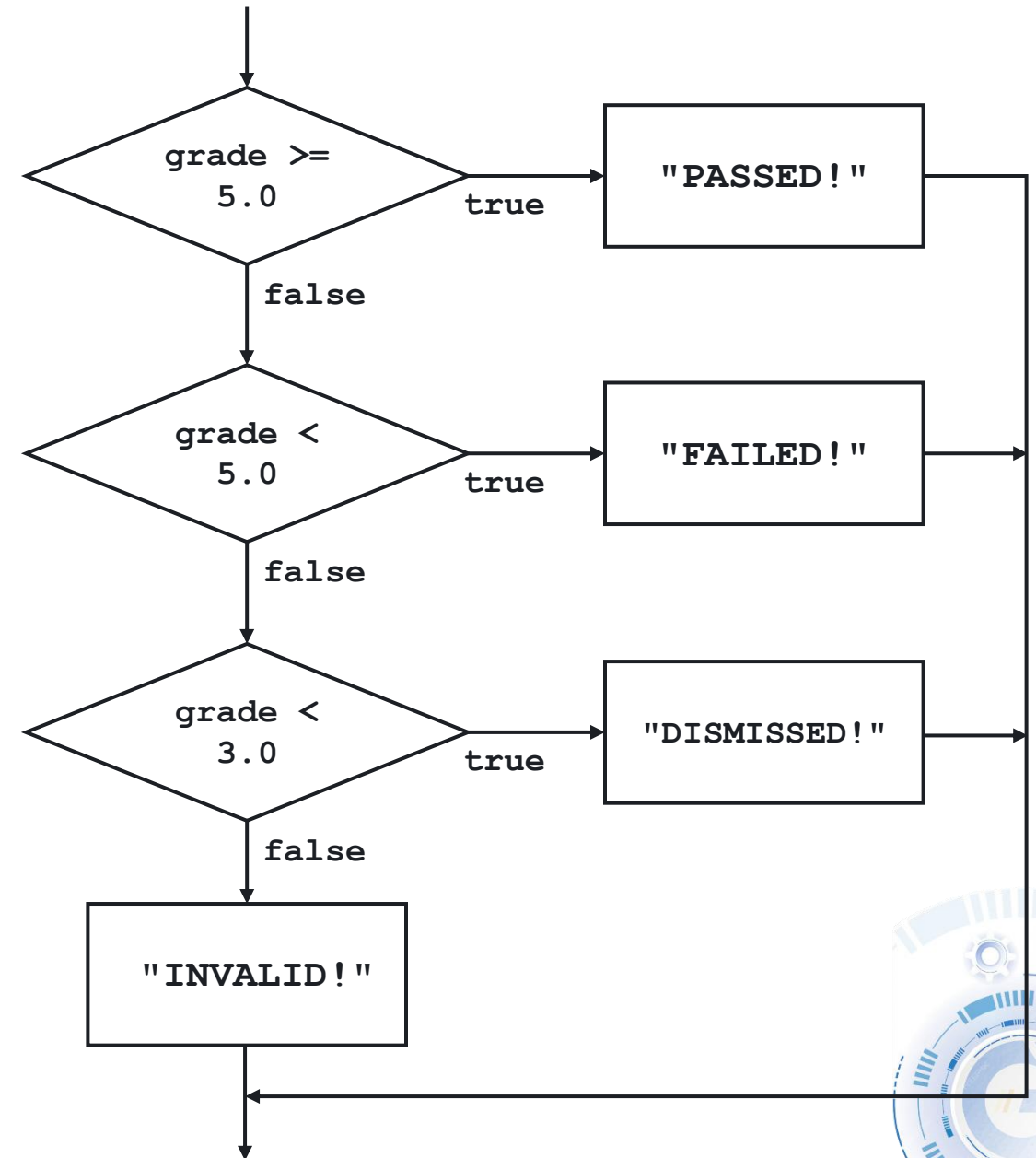
```
    print("FAILED!")
```

```
elif grade < 3.0:
```

```
    print("DISMISSED!")
```

```
else:
```

```
    print("INVALID!")
```



EXERCISE

```
grade = 2.9
```

```
if grade >= 5.0:
```

```
    print("PASSED!")
```

```
elif grade < 3.0:
```

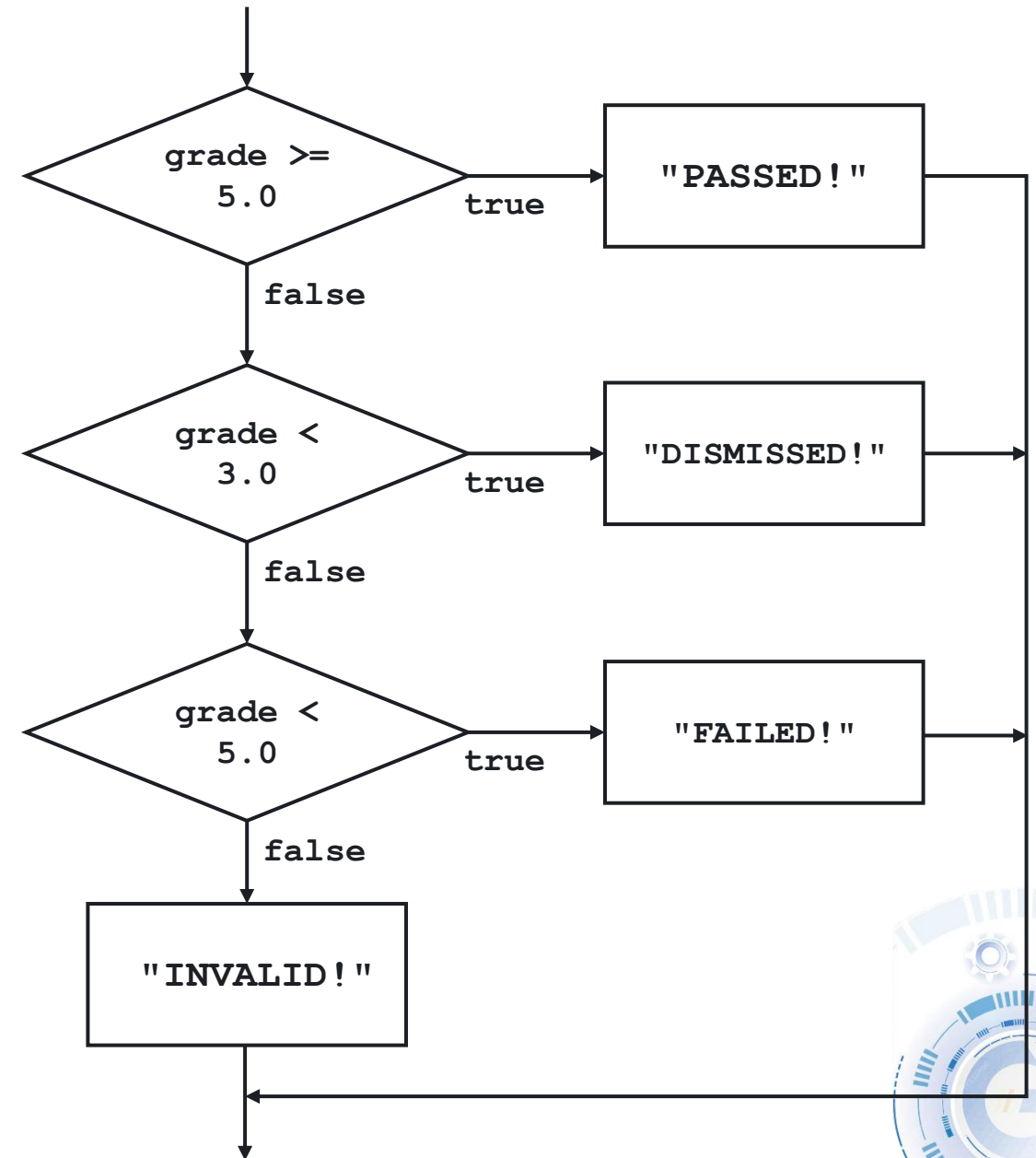
```
    print("DISMISSED")
```

```
elif grade < 5.0:
```

```
    print("FAILED!")
```

```
else:
```

```
    print("INVALID!")
```



LABORATORY

