

Lesson 02.02

- nested if-else logic
- truthy-falsey values

nested if-else logic

Consider if-else logic involving a planned activity:

- if it's rainy, let's go to the museum.
- else if it's sunny, let's go to the beach
- else it's neither rainy nor sunny, so let's go to the park.

But what if there are also wind conditions that will determine what activities we engage in once we reach our destination. This requires nested if-else logic:

1. Declare two variables: a string and a boolean:

```
let weather = "rainy";  
let windy = true;
```

2. Set up the non-nested logic, where we consider the weather, but not the wind conditions:

```
if(weather == "rainy") {  
    console.log("Let's go to the museum!");  
} else if (weather == "sunny") {  
    console.log("Let's go to the beach!");  
} else {  
    console.log("Let's go to the park!");  
}
```

3. Make the weather "sunny" so that the "else if" part runs:

```
weather = "sunny";
```

4. Make the weather "cloudy" so that the "else" part runs:

```
weather = "cloudy";
```

nested if-else

The wind don't much matter at the museum, but does at the beach and park. If it's windy at the beach, we will go windsurfing; otherwise we'll play frisbee.

5. Add a nested if-else to specify what to do at the beach, based on the wind:

```
if(weather == "rainy") {  
    console.log("Let's go to the museum!");  
} else if(weather == "sunny") {  
    console.log("Let's go to the beach!");  
    if(windy) {  
        console.log("Let's go windsurfing!");  
    } else {  
        console.log("Let's play frisbee!");  
    }  
} else {  
    console.log("Let's go to the park!");  
}
```

6. Moving on to the last part, specify what to do at the park based on the wind:

```
if(weather == "rainy") {  
    console.log("Let's go to the museum!");  
} else if(weather == "sunny") {  
    console.log("Let's go to the beach!");  
    if(windy) {  
        console.log("Let's go windsurfing!");  
    } else {  
        console.log("Let's play frisbee!");  
    }  
} else {  
    console.log("Let's go to the park!");  
    if(windy) {  
        console.log("Let's fly a kite!");  
    } else {  
        console.log("Let's have a picnic!");  
    }  
}
```

7. Change the values of weather and windy to get different output.

Lab 02.02

1. Write nested if-else logic that considers whether today is a weekday, weekend or holiday, as well or if you're a student or not. Depending on the variable values, the logic should log one of six different strings:

- if it's a weekday and student is true: "Go to school!"

- if it's a weekday and student is false: "Go to work!"
- if it's the weekend and student is true: "Keg Party!"
- if it's the weekend and student is false: "Happy Hour!"
- if it's a holiday and student is true: "Road trip!"
- if it's a holiday and student is false: "Backyard BBQ!"

2. Write a nested if-else block, that satisfies the following conditions:

- If the student score is greater than or equal to 90, if the student is in high school, they get a grade of "A", but if they are in college they get a grade of 4.
- If the student score is greater than or equal to 80 and less than 90, if the student is in high school, they get a grade of "B", but if they are in college they get a grade of 3.
- If the student score is greater than or equal to 70 and less than 80, if the student is in high school, they get a grade of "C", but if they are in college they get a grade of 2.
- If the student score is greater than or equal to 65 and less than 70, if the student is in high school, they get a grade of "D", but if they are in college they get a grade of 1.
- Else the grade is "FAIL" for both high school and college.

3. Write a nested if-else block, that calculates the price of a pet, based on the following conditions:

- If the pet is a cat, increase the pet price by 20%, unless it is a kitten (baby cat), in which case decrease the price by 10%.
- If the pet is a dog, increase the pet price by 30%, unless it is a puppy (baby dog), in which case decrease the price by 15%.
- If the pet is anything besides a dog or a cat, double the price, unless it is a baby version of the pet, in which case cut the price in half.