

Lesson 4 Demo 04

Using If-Else in Applying Promo Codes

Objective: To use if-else in applying promo codes

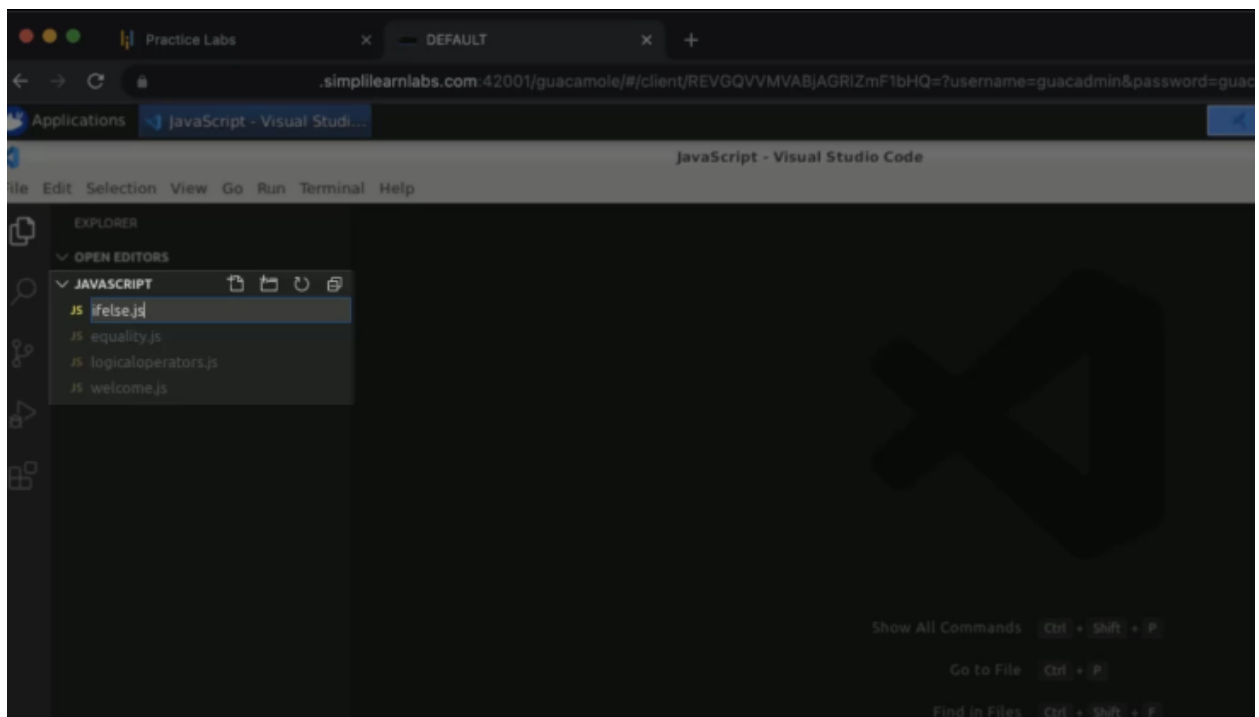
Prerequisites: None

Steps to be followed:

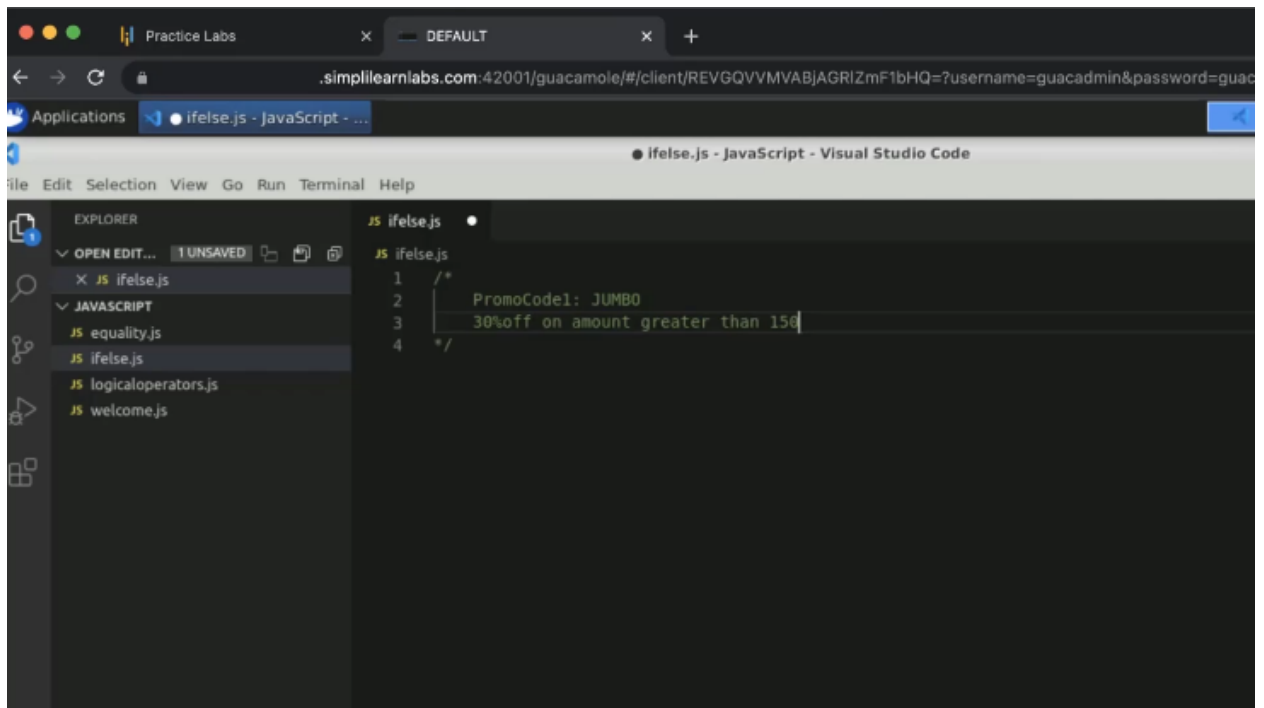
- Use if-else in applying promo codes

Step 1: Use if-else in applying promo codes

1.1 Create a file in JavaScript named 'ifelse.js'.



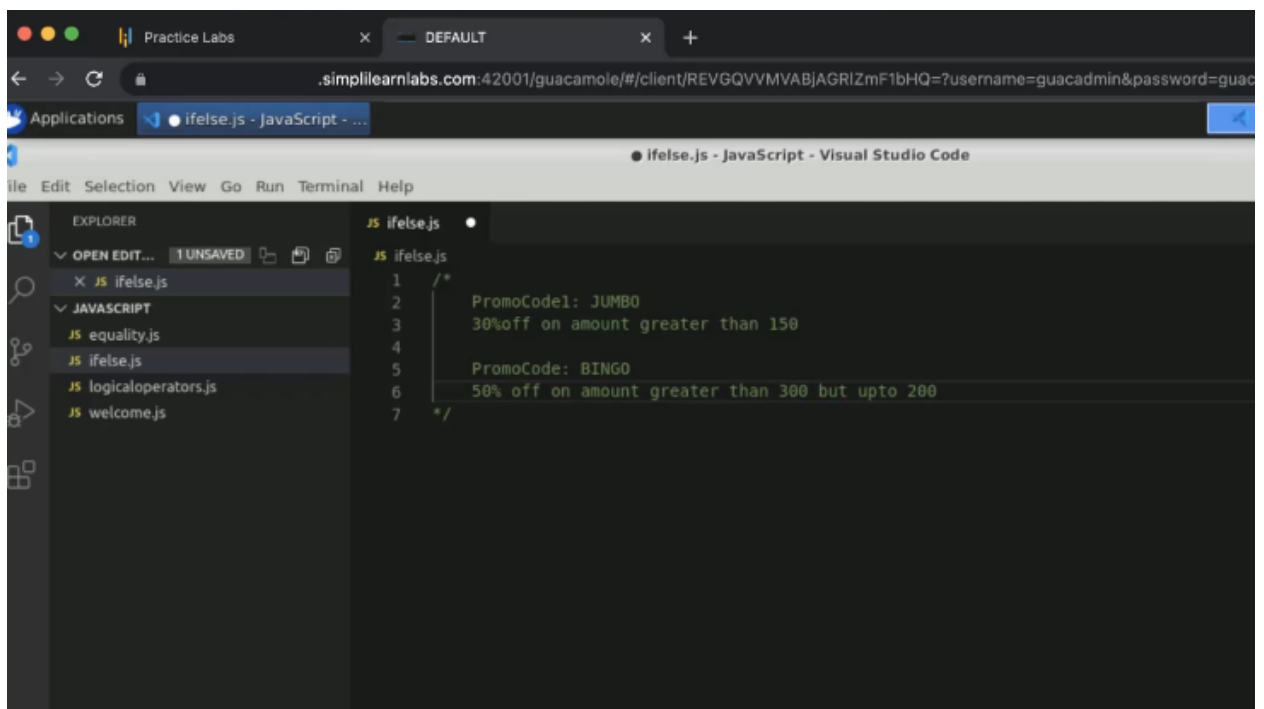
1.2 Consider a scenario and pass the statements stated below:



```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4  */
  
```

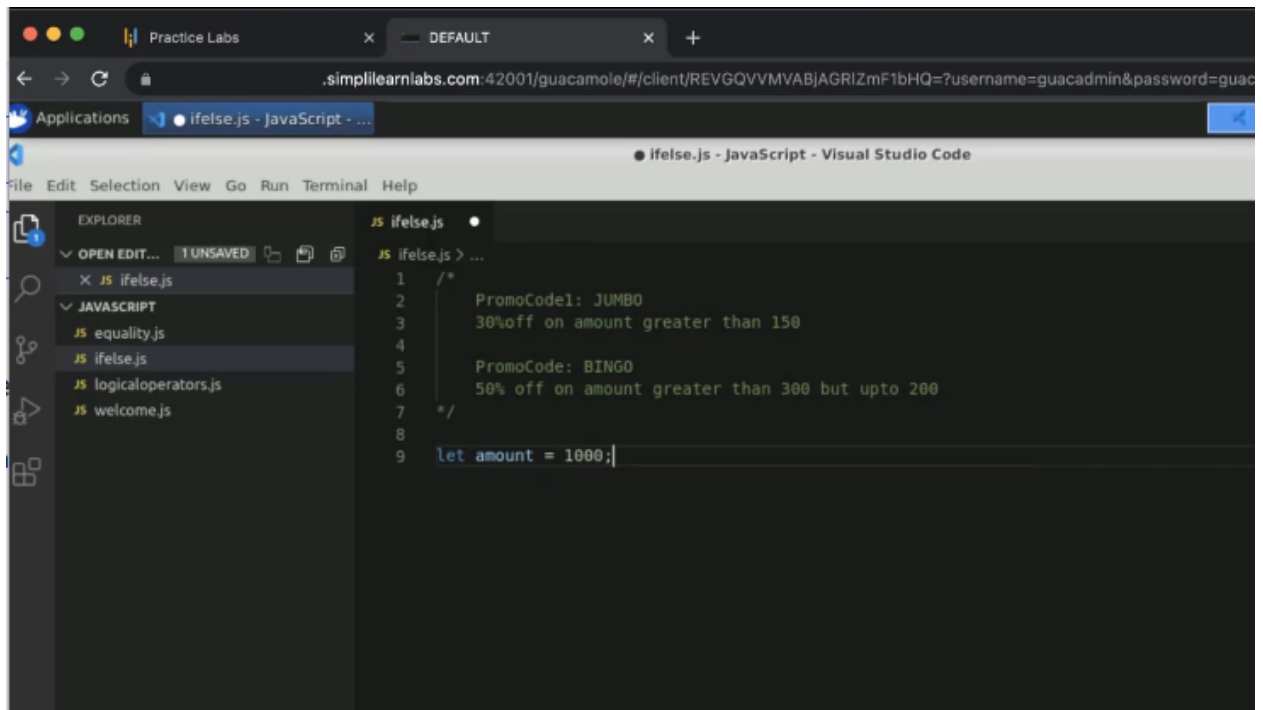
1.3 Add other statements as promo code as BINGO and discount as 50%.



```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
  
```

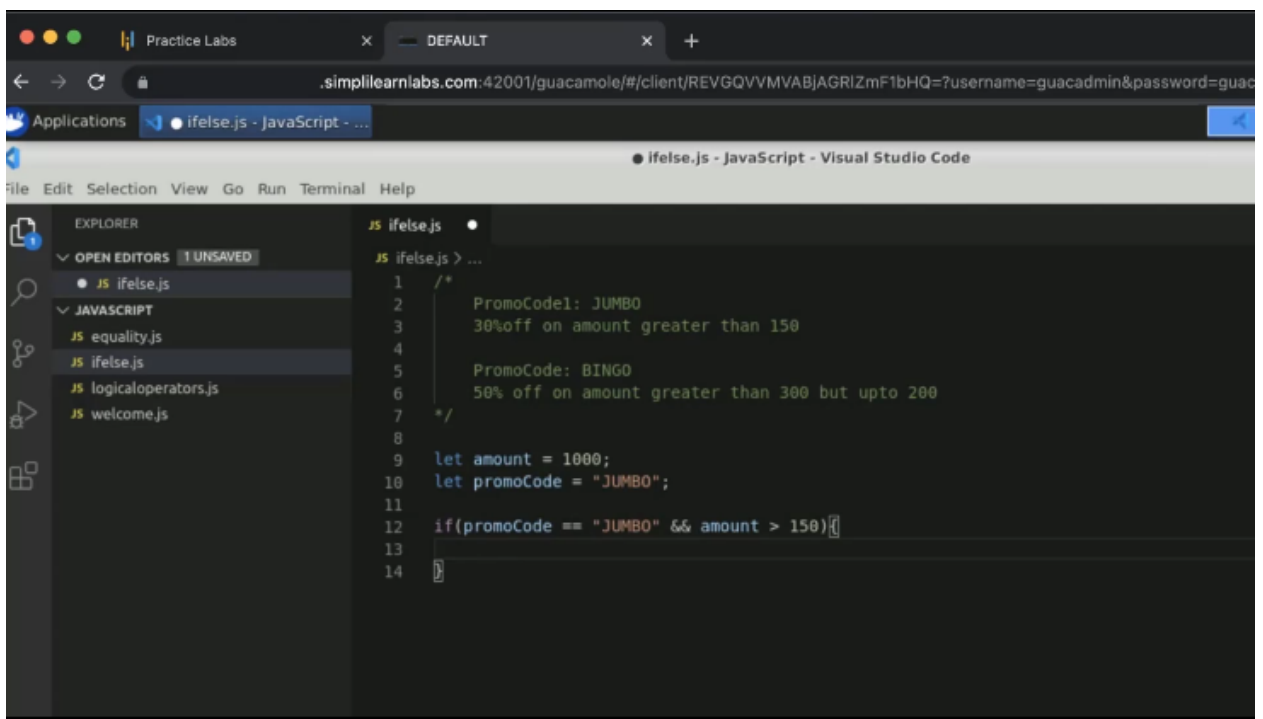
1.4 Set starting amount as 1000.



```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
  
```

1.5 Pass the conditions for the promo code as follows.



```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "JUMBO";
11
12 if(promoCode == "JUMBO" && amount > 150){
13
14
  
```

1.6 Specify the condition with the amount description.

```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "JUMBO";
11
12 if(promoCode == "JUMBO" && amount > 150){
13     amount = amount - 0.30*amount;
14 }

```

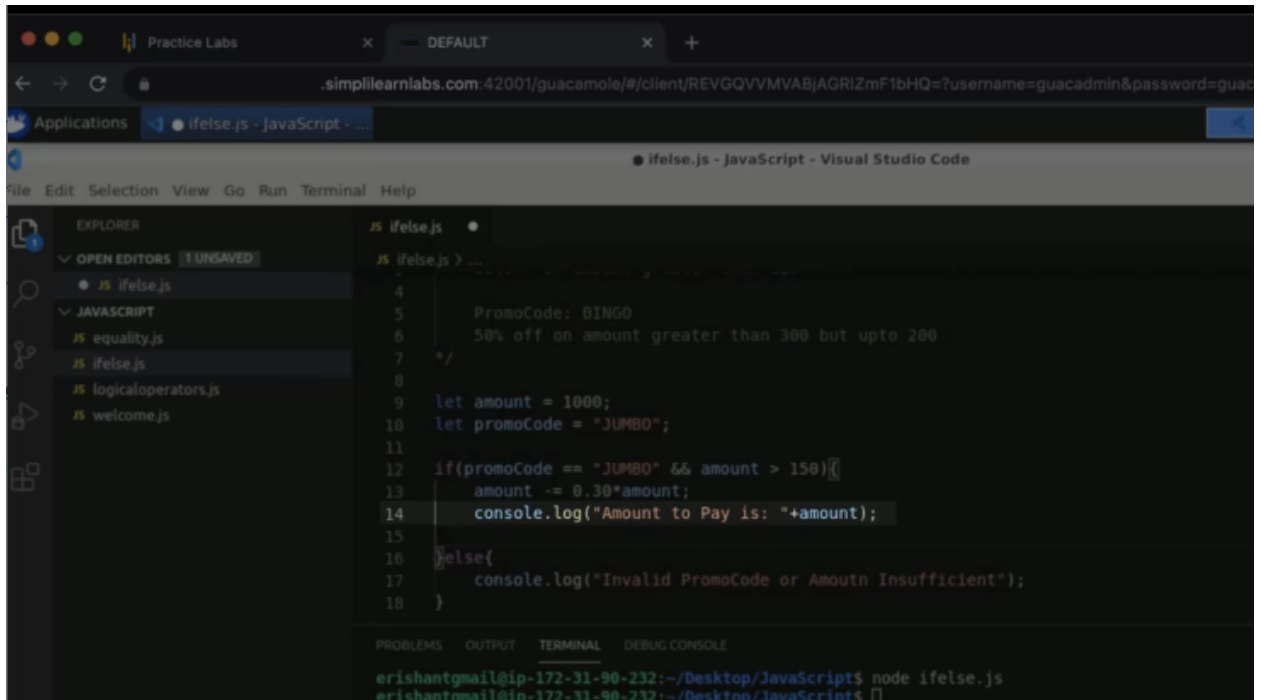
1.7 Put the 'else' loop in the code and add a log statement.

```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "JUMBO";
11
12 if(promoCode == "JUMBO" && amount > 150){
13     amount -= 0.30*amount;
14 }else{
15     console.log("Invalid PromoCode or Amount Insufficient");
16 }
17 }

```

1.8 Add a log statement in the 'if' loop as well.



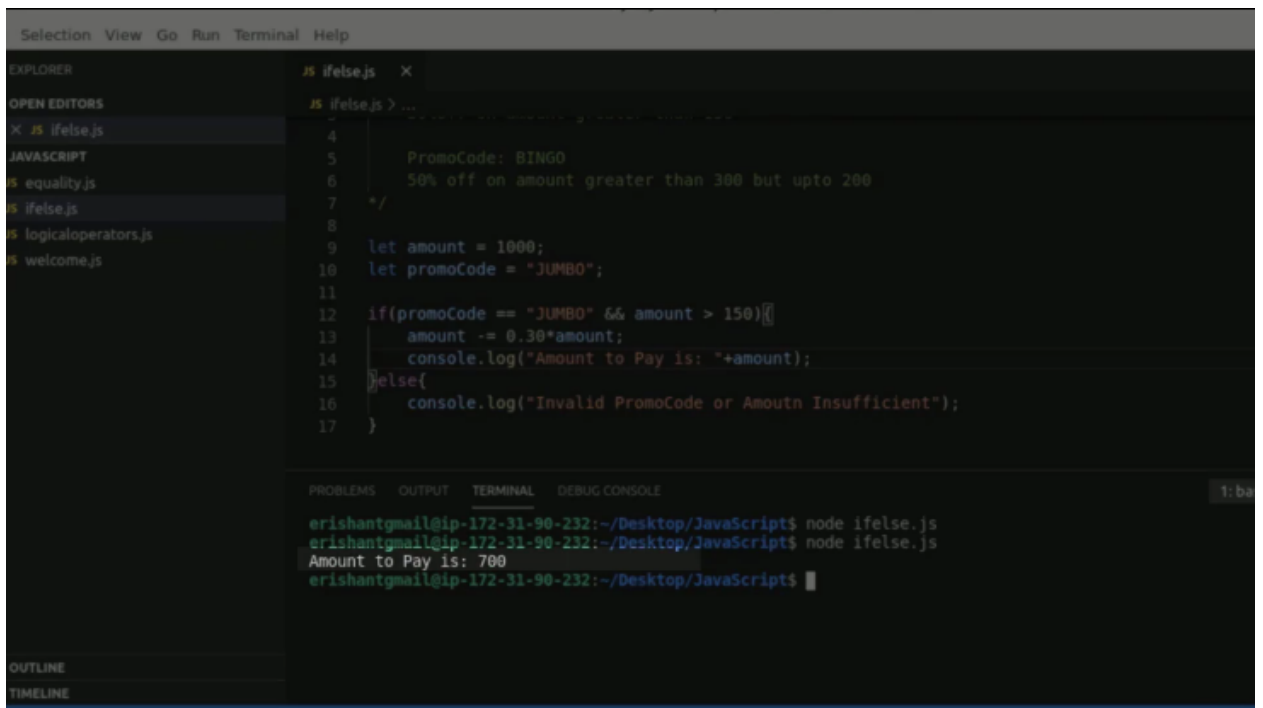
```

1  // Create a variable named 'amount' and assign the value 1000 to it.
2  // Create a variable named 'promoCode' and assign the value 'JUMBO' to it.
3  // Create a variable named 'discount' and assign the value 0.30 to it.
4
5  PromoCode: BINGO
6  50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "JUMBO";
11
12 if(promoCode == "JUMBO" && amount > 150){
13     amount -= 0.30*amount;
14     console.log("Amount to Pay is: "+amount);
15 }
16 else{
17     console.log("Invalid PromoCode or Amount Insufficient");
18 }

```

erishantgm@ip-172-31-90-232:~/Desktop/JavaScript\$ node ifelse.js
erishantgm@ip-172-31-90-232:~/Desktop/JavaScript\$

1.9 Run the program in the terminal window.



```

1  // Create a variable named 'amount' and assign the value 1000 to it.
2  // Create a variable named 'promoCode' and assign the value 'JUMBO' to it.
3  // Create a variable named 'discount' and assign the value 0.30 to it.
4
5  PromoCode: BINGO
6  50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "JUMBO";
11
12 if(promoCode == "JUMBO" && amount > 150){
13     amount -= 0.30*amount;
14     console.log("Amount to Pay is: "+amount);
15 }
16 else{
17     console.log("Invalid PromoCode or Amount Insufficient");
18 }

```

erishantgm@ip-172-31-90-232:~/Desktop/JavaScript\$ node ifelse.js
erishantgm@ip-172-31-90-232:~/Desktop/JavaScript\$ node ifelse.js
Amount to Pay is: 700
erishantgm@ip-172-31-90-232:~/Desktop/JavaScript\$

1.10 Change the amount to '100' and run the program.

The screenshot shows the VS Code editor with the file `ifelse.js` open. The code in the editor is as follows:

```

4
5   PromoCode: BINGO
6   50% off on amount greater than 300 but upto 200
7   */
8
9   let amount = 100;
10  let promoCode = "JUMBO";
11
12  if(promoCode == "JUMBO" && amount > 150){
13      amount -= 0.30*amount;
14      console.log("Amount to Pay is: "+amount);
15  }else{
16      console.log("Invalid PromoCode or Amount Insufficient");
17  }

```

The terminal output shows the following commands and results:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.11 Set an amount to '1000' again. Change promo code to 'HAPPY'.

The screenshot shows the VS Code editor with the file `ifelse.js` open. The code in the editor is as follows:

```

4
5   PromoCode: BINGO
6   50% off on amount greater than 300 but upto 200
7   */
8
9   let amount = 1000;
10  let promoCode = "HAPPY";
11
12  if(promoCode == "JUMBO" && amount > 150){
13      amount -= 0.30*amount;
14      console.log("Amount to Pay is: "+amount);
15  }else{
16      console.log("Invalid PromoCode or Amount Insufficient");
17  }

```

The terminal output shows the following commands and results:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```


1.14 Add one more else if statement.

The screenshot shows a VS Code editor with a file named `ifelse.js`. The code implements a discount calculation logic. It starts with a comment `/*` on line 14. Lines 15-18 show a discount of 30% for a valid promo code and amount, followed by a log statement. Lines 19-24 show a discount of 30% for a "JUMBO" promo code and amount greater than 150, followed by a log statement. Lines 25-27 show an `else if` statement for a "BINGO" promo code and amount greater than 300, which calculates a 50% discount and logs it. The `else` block on lines 28-29 logs an invalid promo code or insufficient amount. The terminal output shows the script being run three times, corresponding to the three conditions.

```

14  /*
15     amount -= 0.30*amount;
16     console.log("Amount to Pay is: "+amount);
17   }else{
18     console.log("Invalid PromoCode or Amount Insufficient");
19   }*/
20   if(promoCode == "JUMBO" && amount > 150){
21     amount -= 0.30*amount;
22     console.log("Amount to Pay is: "+amount);
23   }else if(promoCode == "BINGO" && amount > 300){
24     let discount = 0.50*amount;
25   }else{
26     console.log("Invalid PromoCode or Amount Insufficient");
27   }

```

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ 

```

1.15 Pass two conditions in the new else if statement.

The screenshot shows a VS Code editor with a file named `ifelse.js`. The code implements a discount calculation logic. It starts with a comment `/*` on line 12. Lines 13-18 show a discount of 30% for a valid promo code and amount, followed by a log statement. Lines 19-24 show a discount of 30% for a "JUMBO" promo code and amount greater than 150, followed by a log statement. Lines 25-27 show a complex `else if` statement: `else if (promoCode == "BINGO" && amount > 300) { let discount = 0.50*amount; }`. The `else` block on lines 28-29 logs an invalid promo code or insufficient amount. The terminal output shows the script being run three times, corresponding to the three conditions.

```

12  /*
13     if(promoCode == "JUMBO" && amount > 150){
14       amount -= 0.30*amount;
15       console.log("Amount to Pay is: "+amount);
16     }else{
17       console.log("Invalid PromoCode or Amount Insufficient");
18     }*/
19
20   if(promoCode == "JUMBO" && amount > 150){
21     amount -= 0.30*amount;
22     console.log("Amount to Pay is: "+amount);
23   }else if (promoCode == "BINGO" && amount > 300){
24     let discount = 0.50*amount;
25   }else{
26     console.log("Invalid PromoCode or Amount Insufficient");
27   }

```

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ 

```


1.18 Add an else loop with the amount as 200.

The screenshot shows the VS Code editor with a file named `ifelse.js`. The code implements a logic where a discount is applied based on the promo code and the amount. For the `"JUMBO"` promo code, a 30% discount is applied if the amount is greater than 150. For the `"BINGO"` promo code, a 50% discount is applied if the amount is greater than 300. If the amount is not greater than 300 for the `"BINGO"` promo code, a fixed discount of 200 is applied. The terminal output shows the results of running the code three times.

```

15 console.log("Amount to Pay is: "+amount);
16 }else{
17   console.log("Invalid PromoCode or Amount Insufficient");
18 }*/
19
20 if(promoCode == "JUMBO" && amount > 150){
21   amount -= 0.30*amount;
22   console.log("Amount to Pay is: "+amount);
23 }else if(promoCode == "BINGO" && amount > 300){
24   let discount = 0.50*amount;
25   if(discount<200){
26     amount -= discount;
27   }else{
28     amount -= 200;
29   }
30 }else{

```

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.19 Change the promo code to BINGO.

The screenshot shows the VS Code editor with the `ifelse.js` file. The code has been updated to set the `promoCode` to `"BINGO"` and the `amount` to `1000`. The terminal output shows the results of running the code four times.

```

1  promoCode
2  PromoCode: JUMBO
3  30%off on amount greater than 150
4
5  PromoCode: BINGO
6  50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 1000;
10 let promoCode = "BINGO";
11
12 /*
13 if(promoCode == "JUMBO" && amount > 150){
14   amount -= 0.30*amount;
15   console.log("Amount to Pay is: "+amount);
16 }else{
17   console.log("Invalid PromoCode or Amount Insufficient");

```

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.20 Pass a log statement to print the algorithm.

The screenshot shows the VS Code editor with the file `ifelse.js` open. The code defines a function `calculateAmount` that takes `promoCode` and `amount` as arguments. It uses conditional logic to calculate the final amount based on the promo code and the initial amount. The code is as follows:

```

17  calculateAmount(promoCode, amount) {
18  }
19
20  if(promoCode == "JUMBO" && amount > 150){
21      amount -= 0.30*amount;
22      console.log("Amount to Pay is: "+amount);
23  }else if(promoCode == "BINGO" && amount > 300){
24      let discount = 0.50*amount;
25      if(discount<200){
26          amount -= discount;
27      }else{
28          amount -= 200;
29      }
30      console.log("Amount to Pay is: "+amount);
31  }else{
32      console.log("Invalid PromoCode or Amount Insufficient");
33  }
34  }

```

The terminal output shows the execution of the script for three different cases:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.21 Execute the program.

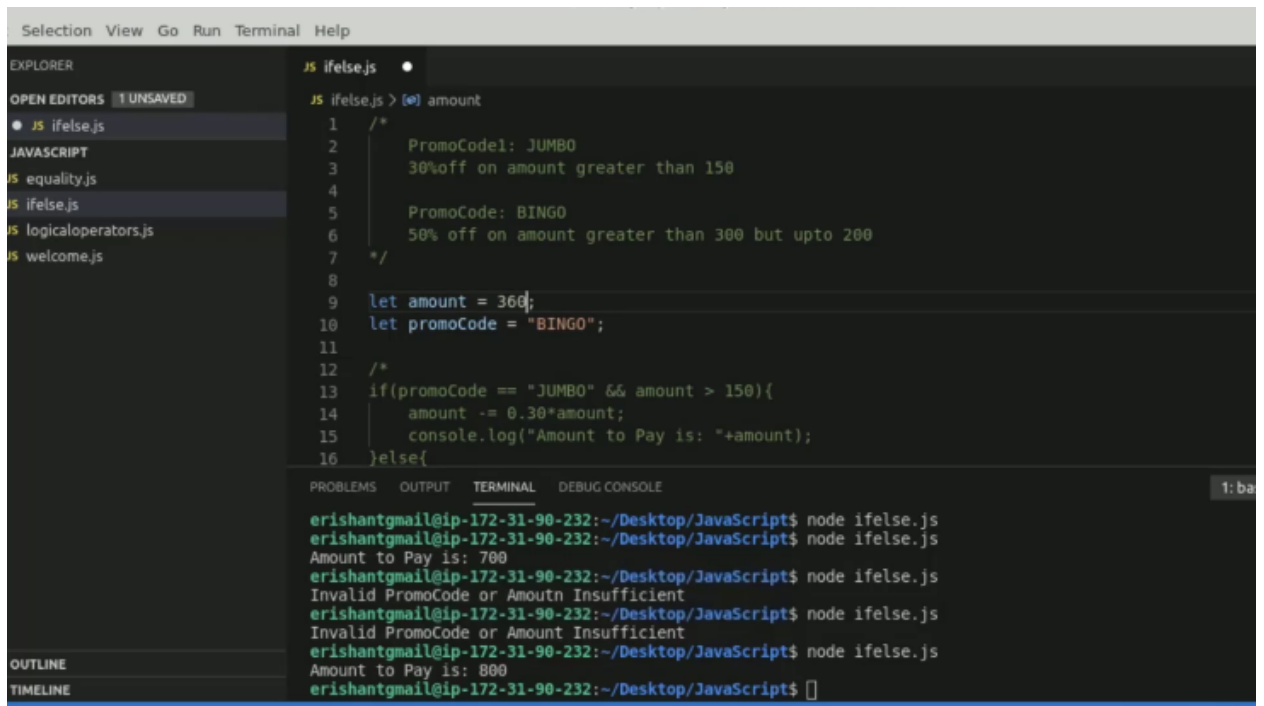
The screenshot shows the VS Code editor with the file `ifelse.js` open. The code is the same as in the previous screenshot. The terminal output shows the execution of the script for three different cases:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 800
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.22 Change the amount to 360.



The screenshot shows the VS Code editor with the file `ifelse.js` open. The code defines a function that calculates the amount to pay based on a promo code and the original amount. The terminal shows the execution of the script with the amount set to 360.

```

1  /*
2     PromoCode1: JUMBO
3     30%off on amount greater than 150
4
5     PromoCode: BINGO
6     50% off on amount greater than 300 but upto 200
7  */
8
9  let amount = 360;
10 let promoCode = "BINGO";
11
12 /*
13 if(promoCode == "JUMBO" && amount > 150){
14     amount -= 0.30*amount;
15     console.log("Amount to Pay is: "+amount);
16 }else{

```

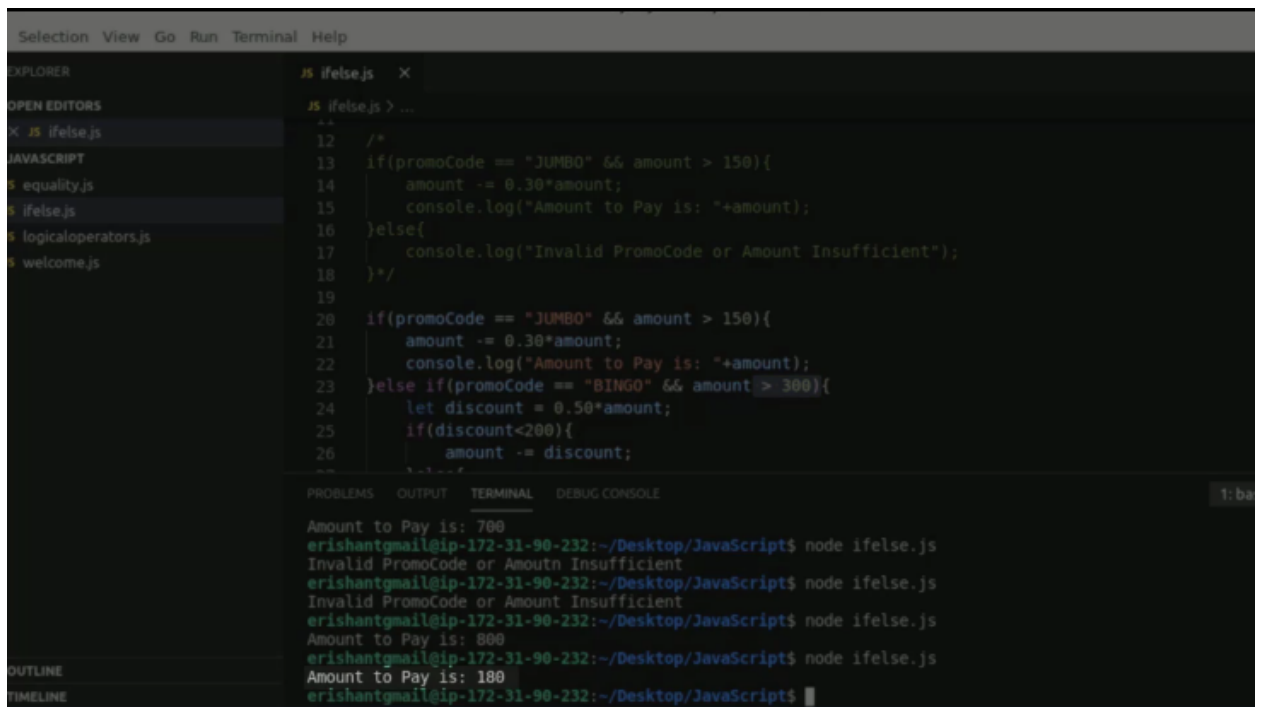
Terminal output:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amountn Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 800
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

1.23 Run the program again.



The screenshot shows the VS Code editor with the file `ifelse.js` open. The code defines a function that calculates the amount to pay based on a promo code and the original amount. The terminal shows the execution of the script with the amount set to 360.

```

12  /*
13  if(promoCode == "JUMBO" && amount > 150){
14      amount -= 0.30*amount;
15      console.log("Amount to Pay is: "+amount);
16  }else{
17      console.log("Invalid PromoCode or Amount Insufficient");
18  }*/
19
20  if(promoCode == "JUMBO" && amount > 150){
21      amount -= 0.30*amount;
22      console.log("Amount to Pay is: "+amount);
23  }else if(promoCode == "BINGO" && amount > 300){
24      let discount = 0.50*amount;
25      if(discount<200){
26          amount -= discount;

```

Terminal output:

```

Amount to Pay is: 700
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amountn Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Invalid PromoCode or Amount Insufficient
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 800
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node ifelse.js
Amount to Pay is: 180
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

