

Lab 2 File 2

```
1 // First Function: Concatenate Text
2 function welcomeMessage(firstName, lastName) {
3   console.log('Welcome ${firstName} ${lastName} to our home');
4 }
5
6 // Second Function: Measurement Unit Conversion
7 function convertUnits(value, initialUnit) {
8   if (initialUnit === 'Celsius') {
9     // Convert Celsius to Fahrenheit
10    return (value * 9/5) + 32;
11  } else if (initialUnit === 'Fahrenheit') {
12    // Convert Fahrenheit to Celsius
13    return (value - 32) * 5/9;
14  } else if (initialUnit === 'Minutes') {
15    // Convert Minutes to Hours
16    return value / 60;
17  } else if (initialUnit === 'Hours') {
18    // Convert Hours to Minutes
19    return value * 60;
20  } else {
21    throw new Error('Unsupported unit');
22  }
23 }
24
25 // Third Function: Math Operation - Factorial
26 function calculateFactorial(value) {
27   if (value === 0 || value === 1) {
28     return 1;
29   } else {
30     return value * calculateFactorial(value - 1);
31   }
32 }
33
34 // Fourth Function: Advanced Function - Square Root using Math Library
35 function calculateSquareRoot(value) {
36   return Math.sqrt(value);
37 }
```

```
1
2 // Importing the utilities file (functions.js)
3 const utils = require('./functions');
4
5
6 // Using the utility functions
7
8 utils.welcomeMessage('Jasmeen', 'Kaur');
9
10 const convertedValue = utils.convertUnits(25, 'Minutes');
11 console.log('Converted value: ${convertedValue}');
12
13 const factorialResult = utils.calculateFactorial(10);
14 console.log('Factorial of 10: ${factorialResult}');
15
16 const squareRootResult = utils.calculateSquareRoot(4);
17 console.log('Square Root of 4: ${squareRootResult}');
18
```

