Module 4: Control Structures, Functions, and Data Structures

Practice Activity 4.2 Practice with Loops

Activity 1.1 – Solution

```
for (let i = 1; i <= 10; i++) {
    console.log(i);
}
```

This loop will log values from 1 to 10.

Activity 1.2 – Solution

```
for (let i = 2; i <= 20; i += 2) {
    console.log(i);
}
```

This loop will print even values from 2 to 20.

Activity 2 – Solution

```
let i = 1;

while (i <= 15) {
    console.log(i);
    i += 2; // Increment by 2 to get the next odd number
}
```

This loop will print odd numbers from 1 to 15.

Activity 3.1 – Solution

```
for (let i = 1; i <= 50; i++) {
    console.log(i);
    if (i > 30) {
        console.log("Number is greater than 30. Exiting the loop.");
        break;
    }
}
```

Activity 3.2 – Solution

```
for (let i = 1; i <= 20; i++) {
    if (i % 5 === 0) {
        // Skip the iteration if the number is divisible by 5
        continue;
    }
    console.log(i);
}
```

Activity 4 – Solution


```
for (let i = 1; i <= 100; i++) {
    // Check if the number is a multiple of both 3 and 5
    if (i % 3 === 0 && i % 5 === 0) {
        console.log("FizzBuzz");
    } else if (i % 3 === 0) {
        // Check if the number is a multiple of 3
        console.log("Fizz");
    } else if (i % 5 === 0) {
        // Check if the number is a multiple of 5
        console.log("Buzz");
    } else {
        // If not a multiple of 3 or 5, simply print the number
        console.log(i);
    }
}
```