

**Corporate Training Program / Front-End Class**  
Fundamental Learning Assignment - Part 2

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**Advanced Practice 1**

```
/**  
 * count the occurrence of characters in the list  
 */  
  
function practice_1(input) {  
  
}  
const input1 = ['a', 'b', 'c', 'a', 'c', 'a']  
console.log(practice_1(input1)) // expected output: {'a':3, 'b':1, 'c':2}
```

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### Advanced Practice 2

```
/**
 * Practice 2: mapping character to number
 */
function practice_2(input, mapping) {

}
const arr = ['a', 'b', 'c', 'a', 'b']
const mapping = {
  a: 1,
  b: 2,
  c: 3
}
console.log(practice_2(arr, mapping)) // expected output: [1, 2, 3, 1, 2]
```

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### Advanced Practice 3

```
/**
 * Practice 3: group by the same key and add the value to a list
 */

function practice_3(input) {

}

const input3 = [
  {key: 'a', value: 3},
  {key: 'b', value: 1},
  {key: 'c', value: 2},
  {key: 'a', value: 3},
  {key: 'c', value: 5}
]
console.log(practice_3(input3)) // expected output: {'a': [3,3], 'b': [1], 'c': [2,5]}
```

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### Advanced Practice 4

```
/**
 * Practice 4: group by the same key and sum up the value
 */

function practice_4(input) {

}

const input4 = [
  {key: 'a', value: 3},
  {key: 'b', value: 1},
  {key: 'c', value: 2},
  {key: 'a', value: 3},
  {key: 'c', value: 5}
]
console.log(practice_4(input4)) // expected output: {'a': 6, 'b': 1, 'c': 7}
```

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**Advanced Practice 5**

```
/**
 * Practice 5: assign objects to students
 */

function practice_5(students, student_objects) {

}

const students = [
  {student_id: 1, name: 'Arthur'},
  {student_id: 2, name: 'Peter'},
  {student_id: 3, name: 'Molly'},
]
const student_objects = [
  {student_id: 1, object: 'pen'},
  {student_id: 2, object: 'pen'},
  {student_id: 3, object: 'book'},
  {student_id: 1, object: 'book'},
  {student_id: 3, object: 'phone'},
]
console.log(practice_5(students, student_objects))
// expected output:
// [
//   { student_id: 1, name: 'Arthur', objects: [ 'pen', 'book' ] },
//   { student_id: 2, name: 'Peter', objects: [ 'pen' ] },
//   { student_id: 3, name: 'Molly', objects: [ 'book', 'phone' ] }
// ]
```