Advanced Programming Techniques

HW#1 : Bashar Khoujah

Soru 1:

```
> let range = (start, end, step) => {
    step = step || 1;
    let array = [];
    if (end > start) {
      for (let i = start; i <= end; i += step) {
        array.push(i);
      }
    } else {
      step = Math.abs(step);
      for (let i = start; i >= end; i -= step) {
        array.push(i);
      }
    }

    return array;
  };

  let sum = (array) => {
    let sumOfArray = 0;
    for (let i = 0; i < array.length; i++) {
      sumOfArray += array[i];
    }
    return sumOfArray;
  };
< undefined
> range(10,1,2);
< ▶ (5) [10, 8, 6, 4, 2]
> range(1,10)
< ▶ (10) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
> sum(range(1,10));
< 55
```

Soru 2

```
function analyze(min = 0) {
  return [...EVENTS]
    .map((e) => ({ evt: e, cor: phi(tableFor(e)) }))
    .filter((x) => Math.abs(x.cor) > min)
    .map((x) => x.evt + ": " + x.cor.toFixed(4));
}
```

```
  new Entry(["pizza", "brushed teeth", "running", "work"], false),
  new Entry(["lettuce", "brushed teeth", "work"], false),
  new Entry(["bread", "brushed teeth", "television", "weekend"], false),
  new Entry(["cauliflower", "peanuts", "brushed teeth", "weekend"], false),
];

journalEvents(); //determine the set of events
console.log(analyze());
```

VM1085:196

```
(26) ['carrot: 0.0141', 'exercise: 0.0686', 'weekend: 0.1372', 'bread: -0.0758', 'pudding: -0.0648', 'brushed teeth: -0.3805', 'touched tree: -0.0808', 'nachos: -0.0704', 'cycling: -0.0808', 'brussel sprouts: -0.0523', 'ice cream: -0.0808', 'computer: 0.0686', 'potatoes: -0.0857', 'candy: 0.1296', 'dentist: -0.0366', 'running: -0.0905', 'pizza: 0.0686', 'work: -0.1372', 'beer: -0.0523', 'cauliflower: -0.0808', 'lasagna: 0.0808', 'lettuce: -0.0704', 'television: -0.0808', 'spaghetti: 0.2425', 'reading: 0.1107', 'peanuts: 0.5903']
```

Soru 3

```
function analyze(min = 0) {
  let a = [];
  for (let e of EVENTS) {
    let cor = phi(tableFor(e));
    if (Math.abs(cor) > min) a.push(e + ": " + cor.toFixed(4));
  }
  return a;
}
```

```
journalEvents(); //determine the set of events
console.log(analyze());
```

VM1205:194

```
(26) ['carrot: 0.0141', 'exercise: 0.0686', 'weekend: 0.1372', 'bread: -0.0758', 'pudding: -0.0648', 'brushed teeth: -0.3805', 'touched tree: -0.0808', 'nachos: -0.0704', 'cycling: -0.0808', 'brussel sprouts: -0.0523', 'ice cream: -0.0808', 'computer: 0.0686', 'potatoes: -0.0857', 'candy: 0.1296', 'dentist: -0.0366', 'running: -0.0905', 'pizza: 0.0686', 'work: -0.1372', 'beer: -0.0523', 'cauliflower: -0.0808', 'lasagna: 0.0808', 'lettuce: -0.0704', 'television: -0.0808', 'spaghetti: 0.2425', 'reading: 0.1107', 'peanuts: 0.5903']
```