HOFs

```javascript
function forEach(items, action) {
    for(let i = 0; i < items.length; i ++) {
        action(items[i]);
    }
}
```

```javascript
function filter(elems, predicateFn) {
    var results = [];
    forEach(elems, function(elem) {
        if(predicateFn(elem)) {
            results.push(elem);
        }
    })

    return results;
}
```

```javascript
let numbers = [5,7,10,4,77,24];
```

```javascript
let evens = filter(numbers, function(no) {
    return no % 2 === 0;
});

forEach(evens, console.log);
```

```javascript
function memo(fn){
    var cache = {};
    return function(arg){
        // this function can access members
        if(!cache[arg]) {
            cache[arg] = fn(arg);
        }
        return cache[arg];
    }
}
```

```javascript
function fibanocci(no) {
    if(no == 0 || no == 1) {
        return 1;
    } else {
        return fibanocci(no -1) + fibanocci(no-2);
    }
}
```

```javascript
var memFib = memo(fibanocci);
```

```
> memFib.prototype
<- ▼ {} i
    ▼ constructor: ƒ (arg)
        length: 1
        name: ""
      ▶ prototype: {}
        arguments: null
        caller: null
        [[FunctionLocation]]: lib.js:33
      ▶ [[Prototype]]: ƒ ()
      ▼ [[Scopes]]: Scopes[2]
        ▼ 0: Closure (memo)
          ▶ cache: {40: 165580141}
          ▶ fn: ƒ fibanocci(no)
```