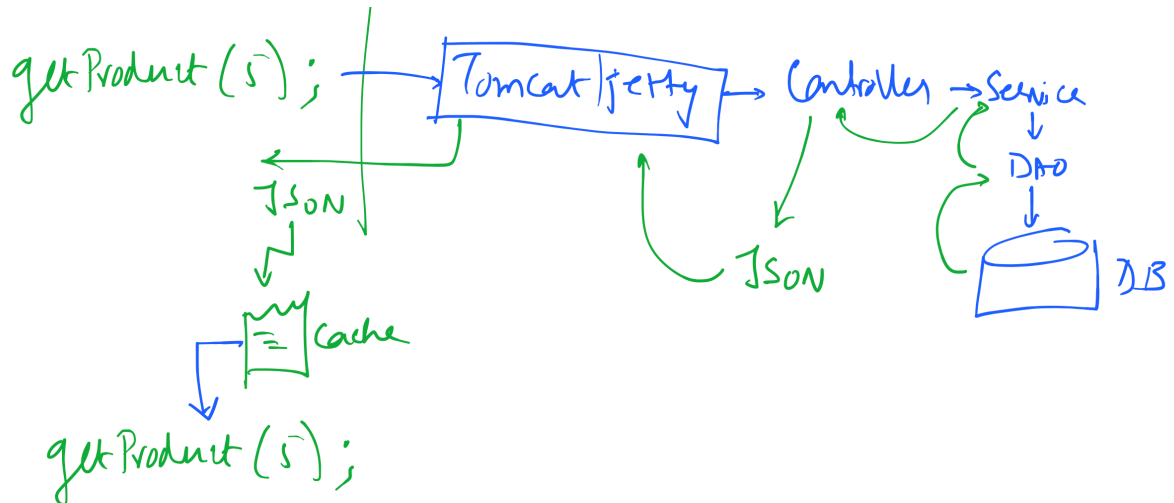
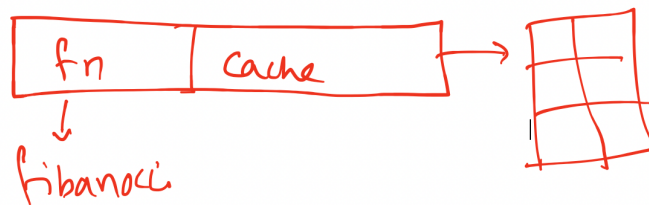


Memoization Pattern



```
function fibanocci(no) {  
  return (no == 0 || no == 1) ? no : fibanocci(no - 1) + fibanocci(no - 2);  
}  
  
var memFib = memo(fibanocci);  
  
function memo(fn) {  
  var cache = {};  
  return function (arg) {  
    if (!cache[arg]) {  
      cache[arg] = fn(arg);  
    }  
    return cache[arg];  
  }  
}
```

HEAP → CLOSURE



```

34
function fibanocci(no) {
  return (no == 0 || no == 1) ? no : fibanocci(no - 1) + fibanocci(no - 2);
}

```

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

```

function memo(fn) {
  var cache = {};
  return function (arg) {
    if (!cache[arg]) {
      cache[arg] = fn(arg);
    }
    return cache[arg];
  }
}

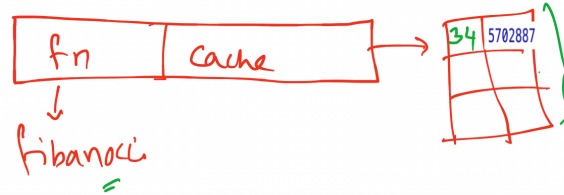
```

```

console.time("first");
console.log(memFib(34));
console.timeEnd("first");

```

HEAP → CLOSURE



```

function fibanocci(no) {
  return (no == 0 || no == 1) ? no : fibanocci(no - 1) + fibanocci(no - 2);
}

```

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

```

function memo(fn) {
  var cache = {};
  return function (arg) {
    if (!cache[arg]) {
      cache[arg] = fn(arg);
    }
    return cache[arg];
  }
}

```

```

console.time("second");
console.log(memFib(34));
console.timeEnd("second");

```

HEAP → CLOSURE

