

# A tour of Nix

## 32 / 35 Reimplementation: attrVals

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Write your own implementation of the `attrVals` function.

It consumes a list of `attribute names` and an `attribute set`. It returns the values of each `attribute name`.

**Note:** Remember that `attrSet ? "a"` returns `true` and `attrSet ? "j" => false!`

**Note:** Remember that `key = a; attrSet.${a}` returns `1!`

### `attrVals` VS `attrValues`:

- `attrVals` -> given a list of names, extract their values from the set and return a list of them

```
attrVals ["a" "b" "c"] attrSet; => should be [1 2 3]
```

- `attrValues` -> extract all values in the given set and return a list of them

```
attrValues attrSet; => [1 2 3 4]
```

**Warning:** This is hard!

**Note:** See video [@youtube](#)

```
1 with import <nixpkgs> { };
2 let
3   attrSet = {c = 3; a = 1; b = 2; d=4;};
4
5   #tips: use the map function and access the attribute values
6   attrVals = XXX;
7
8 in
9 rec {
10
11   solution = attrVals ["a" "b" "c"] attrSet; #should be [1 2 3]
12 }
13
```

reset

solution

run

```
with import <nixpkgs> { };
let
  attrSet = {c = 3; a = 1; b = 2; d=4;};
  attrVals = kys: se: lib.fold (el: c: if se ? "${el}" then [(se.${el})] ++ c else c)
    [] kys;

in
  rec {

    solution = attrVals ["a" "b" "c"] attrSet; #should be [1 2 3]
  }
```