

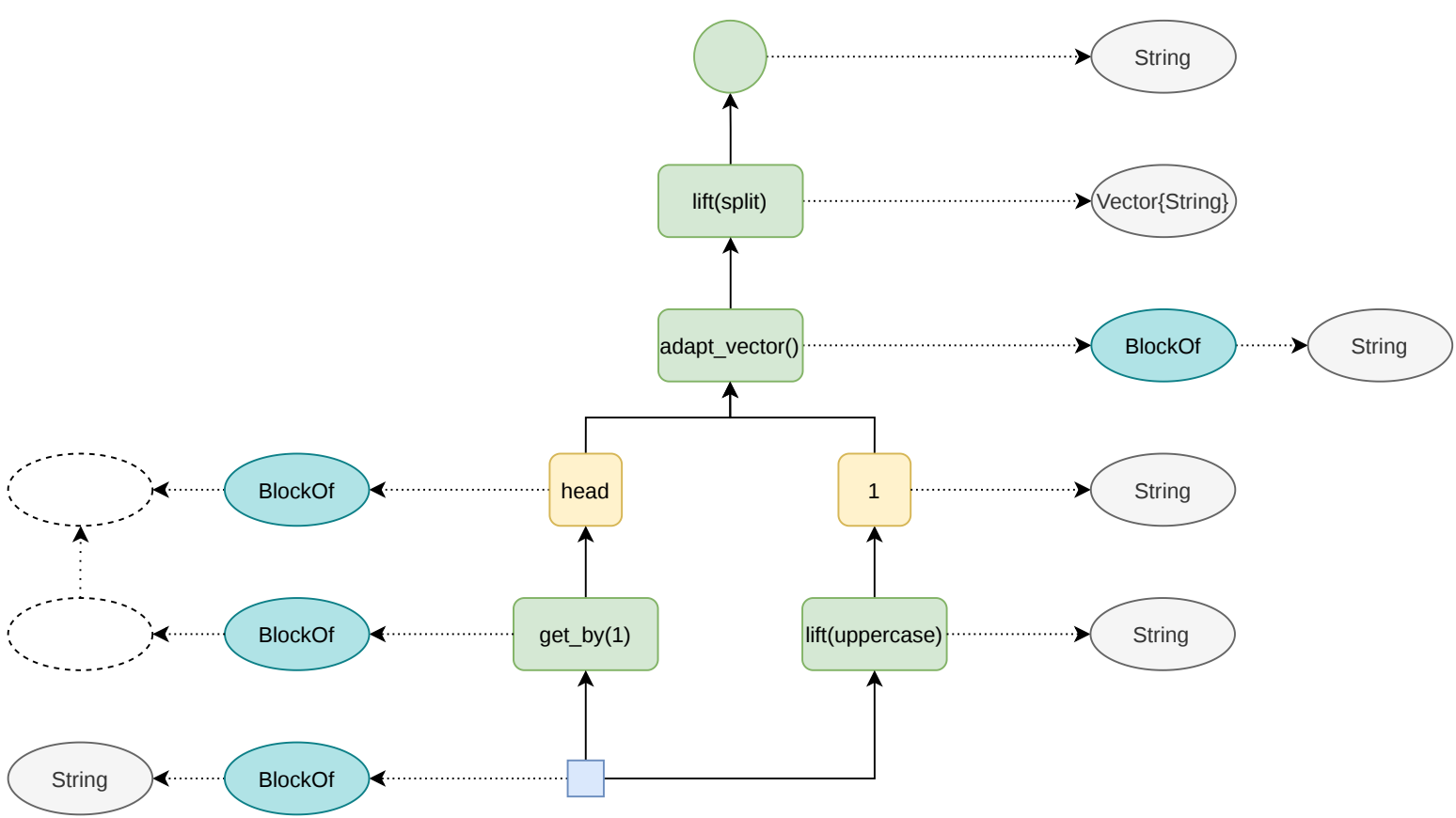


The diagram illustrates the transformation of a flat table into a hierarchical tree structure through a series of steps:

- Initial State:** A flat table with two columns: an index (1) and a value ("Hello World").
- Transformation:** The value "Hello World" is split into an array: `String["Hello", "World"]`.
- Indexing:** The array is processed into a tree structure. The root node branches into two child nodes:
 - Node 1: Index 1, Value 1
 - Node 2: Index 1, Value "Hello"
- Further Processing:** The tree structure is refined. Node 2's value is updated to "World".
- Final State:** The tree structure is further refined. Node 2's value is updated to "HELLO".

The final tree structure consists of a root node branching into two child nodes:

- Node 1: Index 1, Value 1
- Node 2: Index 1, Value "HELLO"



wrap()



chain_of(tuple_of(2), column(1))



sieve_by0



chain_of(wrap(), block_length())



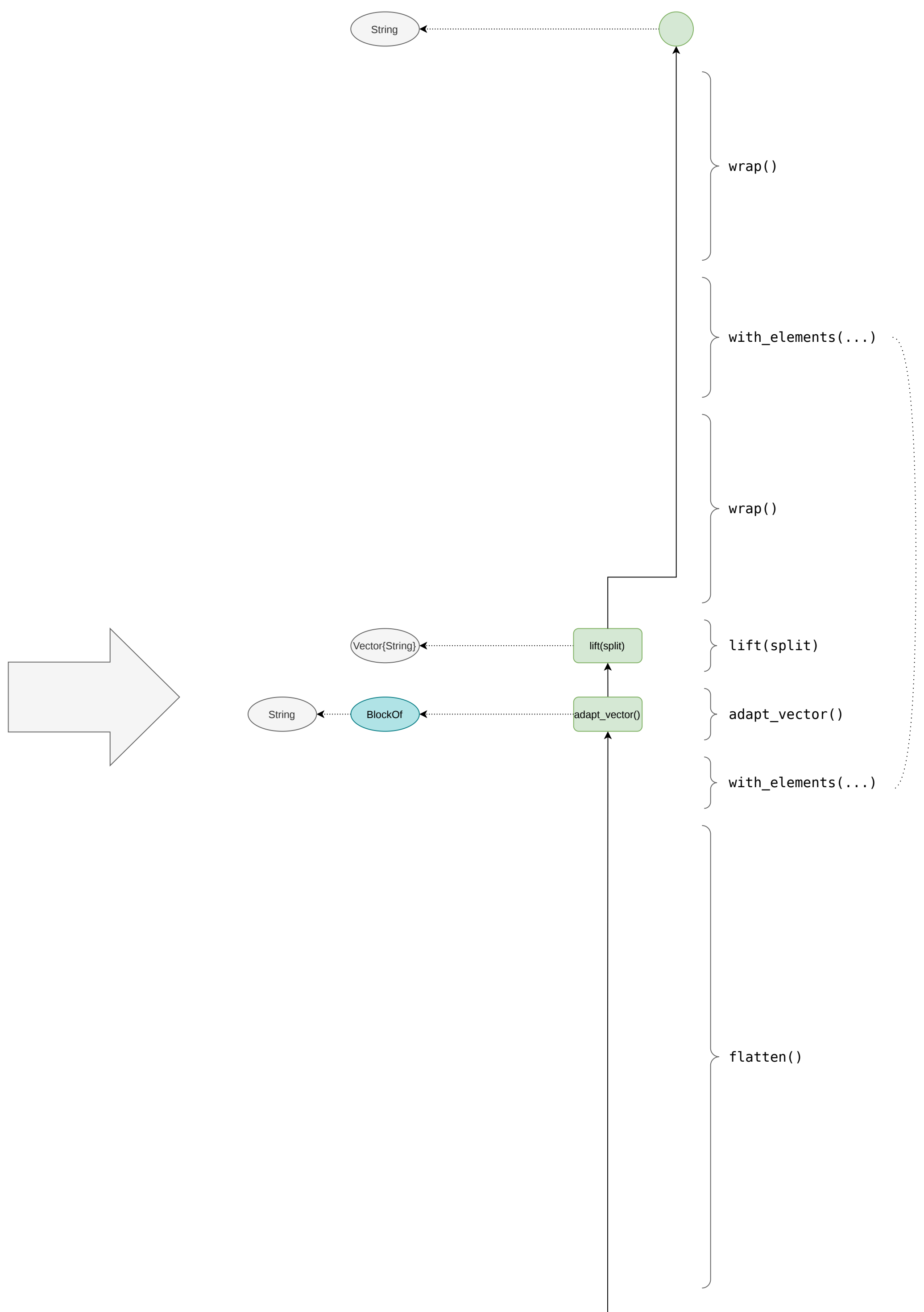
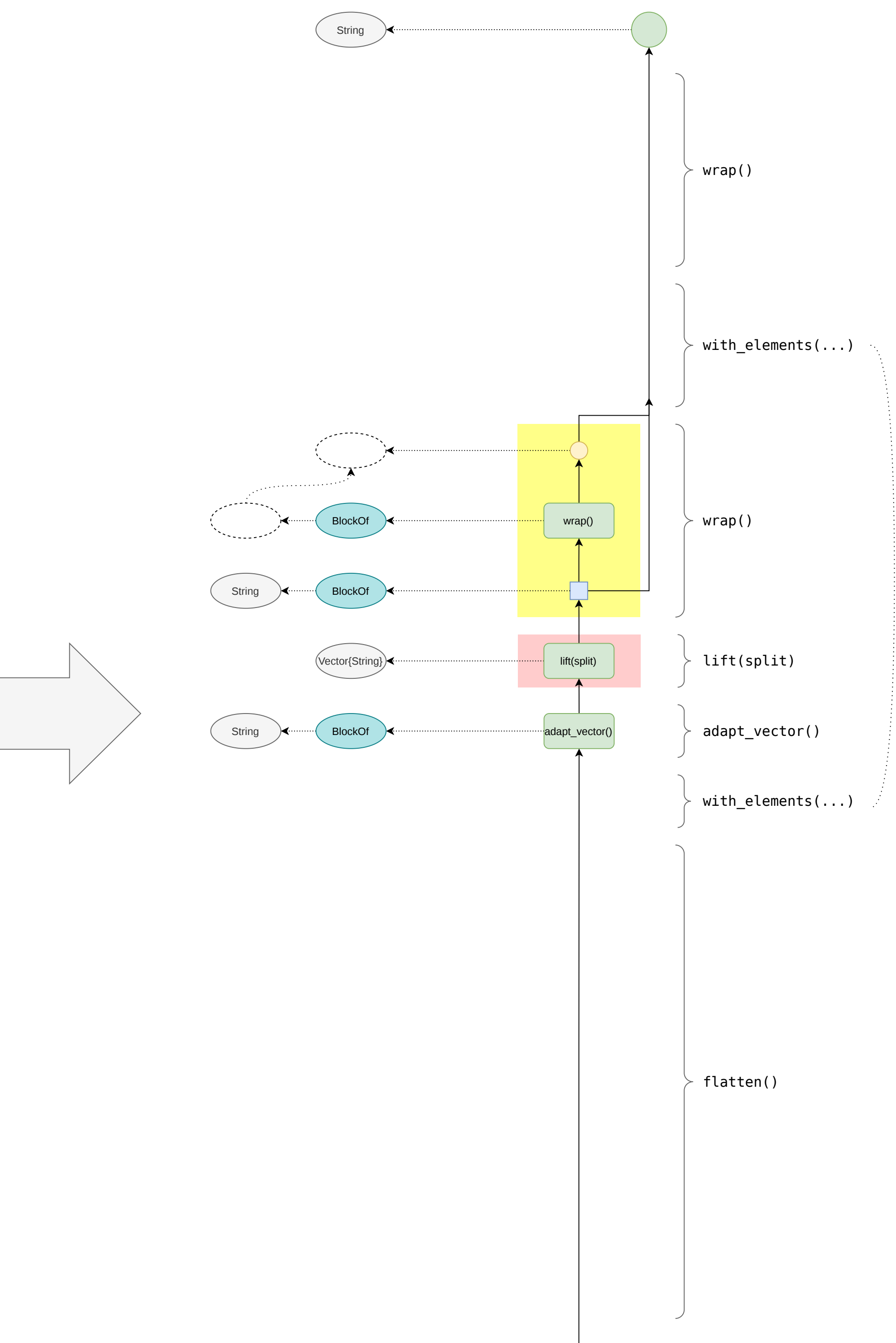
@query "Hello World" split(it)

```
chain_of(
  wrap(),
  with_elements(
    chain_of(
      wrap(),
      lift(split),
      adapt_vector()),
    flatten())
```



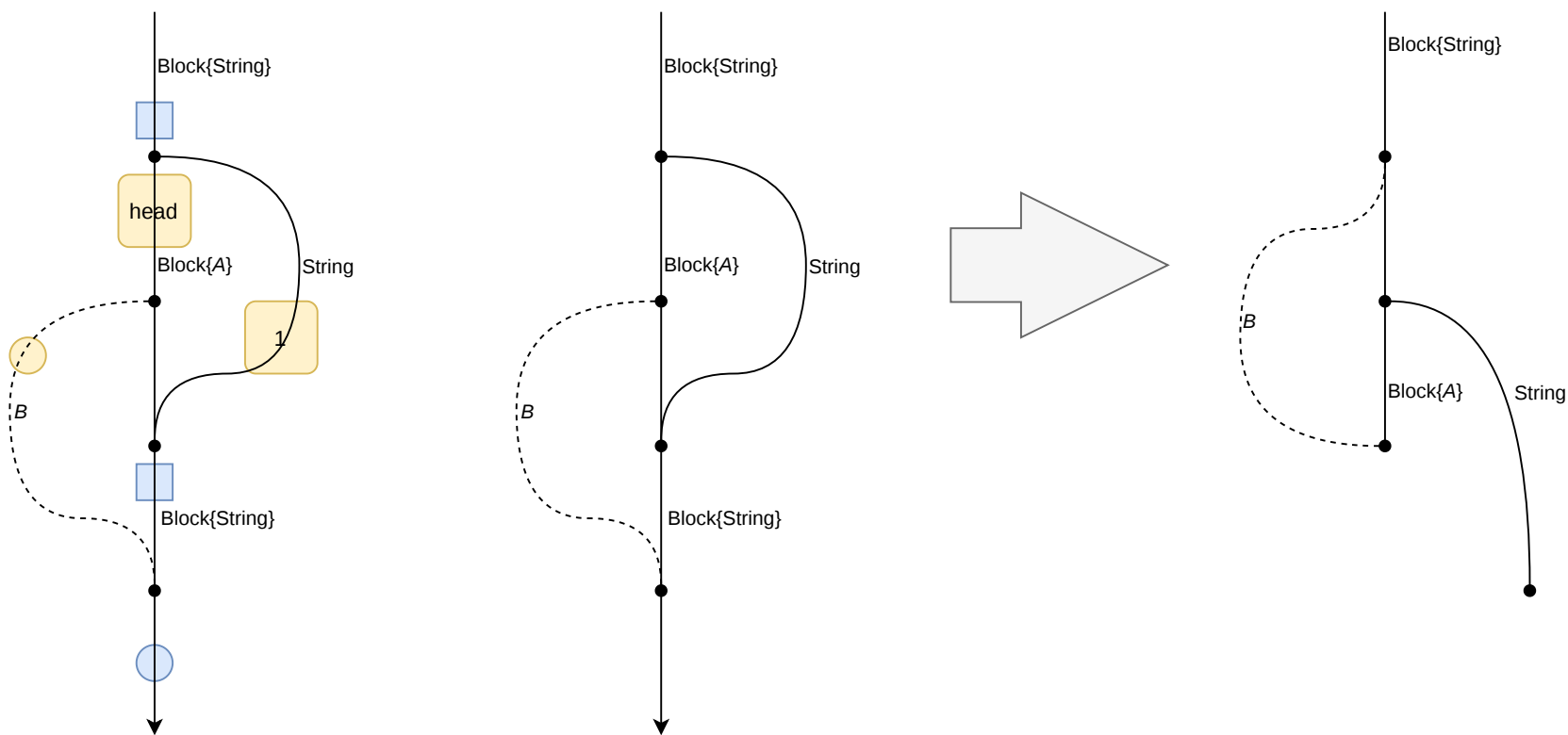
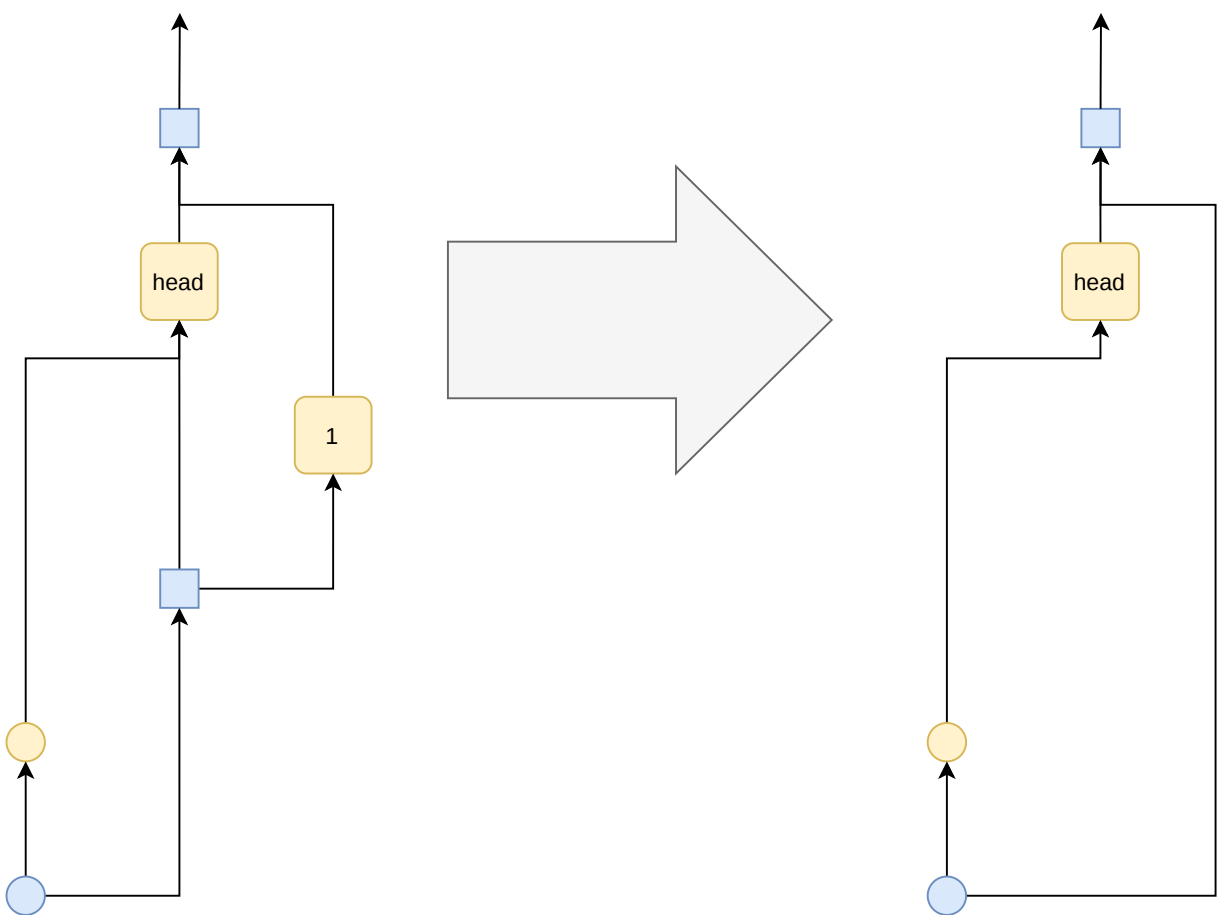
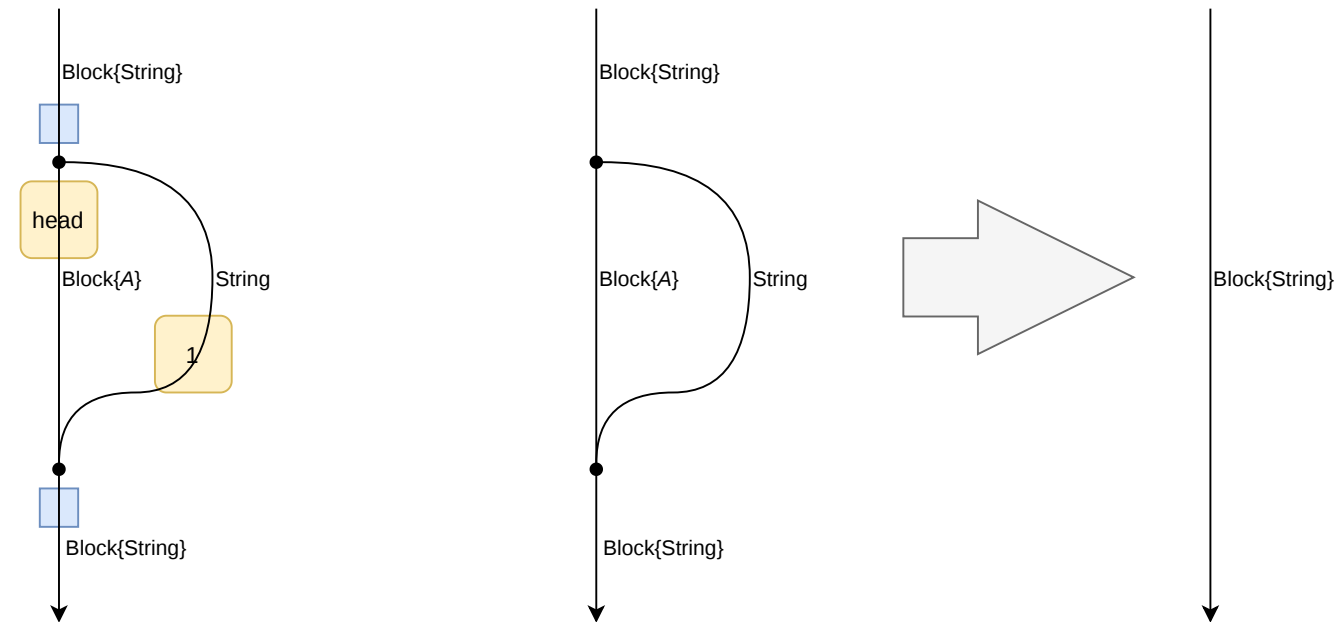
untrace(n::NodeRef, guard::NodeRef)::Tuple{Pipeline,Vector{NodeRef}}





@query "Hello World" split(it)

```
chain_of(
  wrap(),
  with_elements(
    chain_of(
      wrap(),
      lift(split),
      adapt_vector()),
    flatten())
```







`untrace(n::NodeRef, guard::NodeRef)::Tuple{Pipeline,Vector{NodeRef}}`

`{it ^ 2, (it ^ 2) ^ 3}`

`chain_of(f, tuple_of(g, h)) => tuple_of(chain_of(f, g), chain_of(f, h))`



`untrace(n::NodeRef, guard::NodeRef)::Tuple{Pipeline,Vector{NodeRef}}`

@query "Hello World" split(it)

```
chain_of(
  wrap(),
  with_elements(wrap()),
  with_elements(lift(split)),
  with_elements(adapt_vector()),
  flatten())
```

