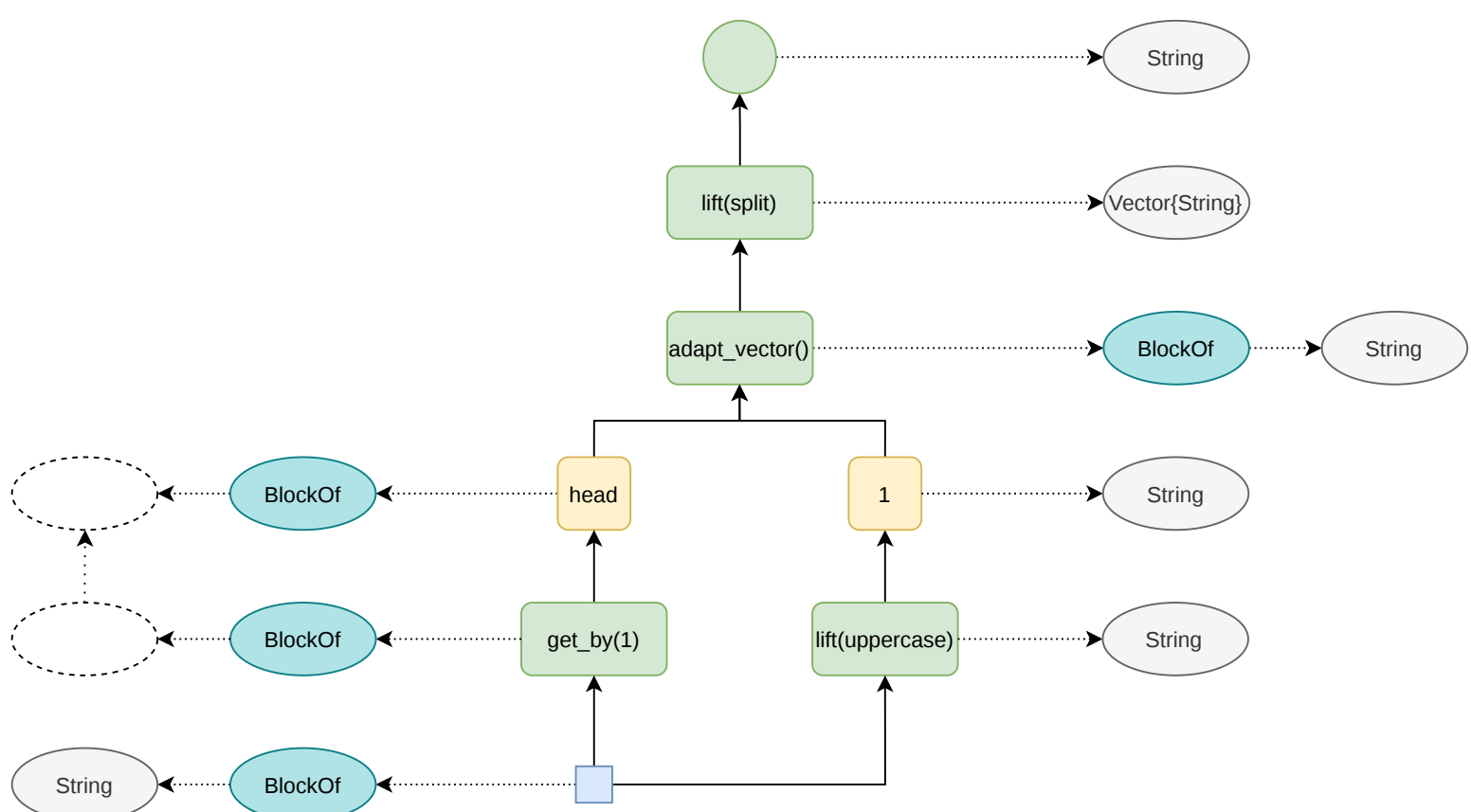
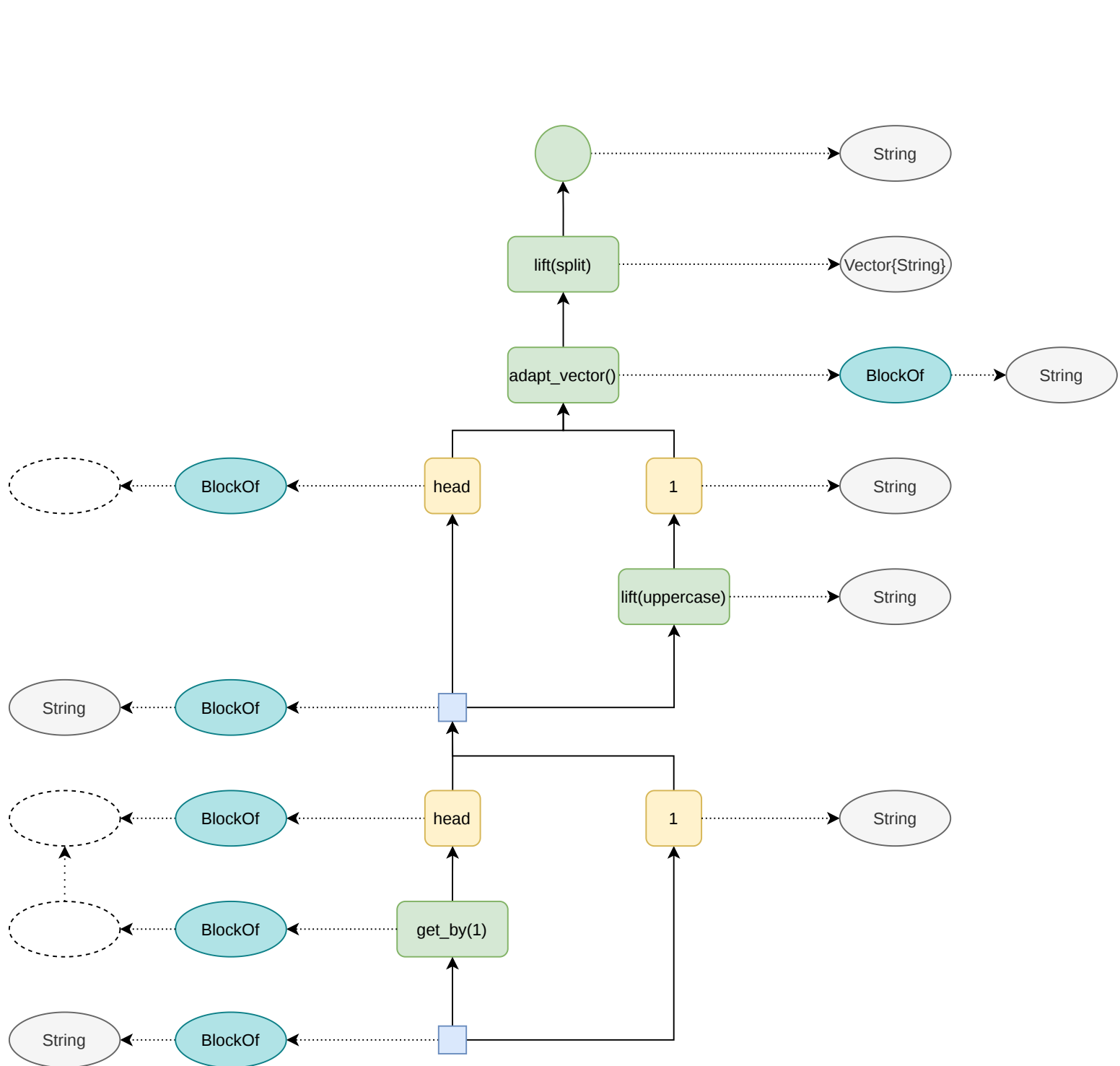
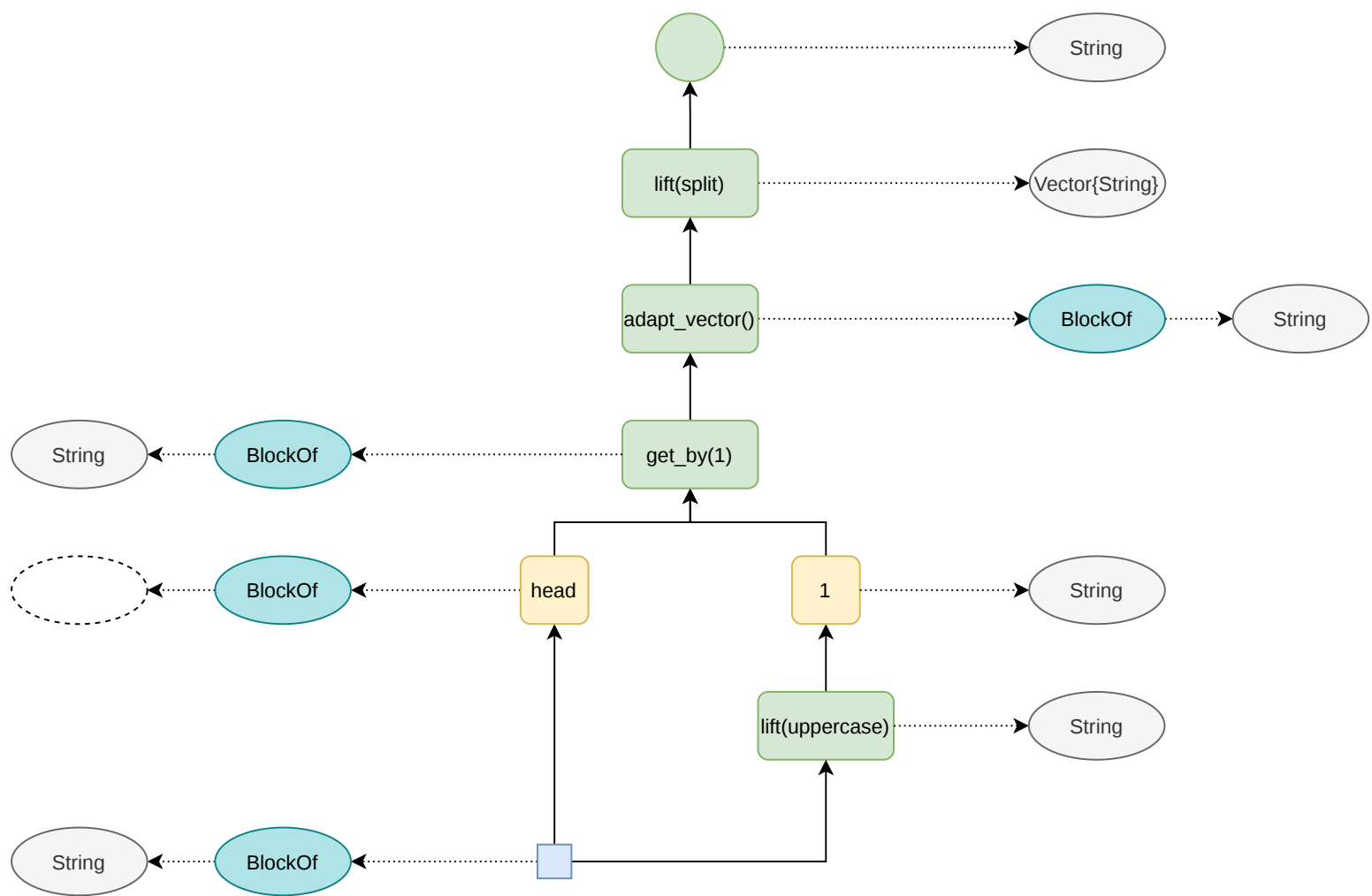




The diagram illustrates the transformation of a flat table into a hierarchical tree structure. It shows a sequence of steps:

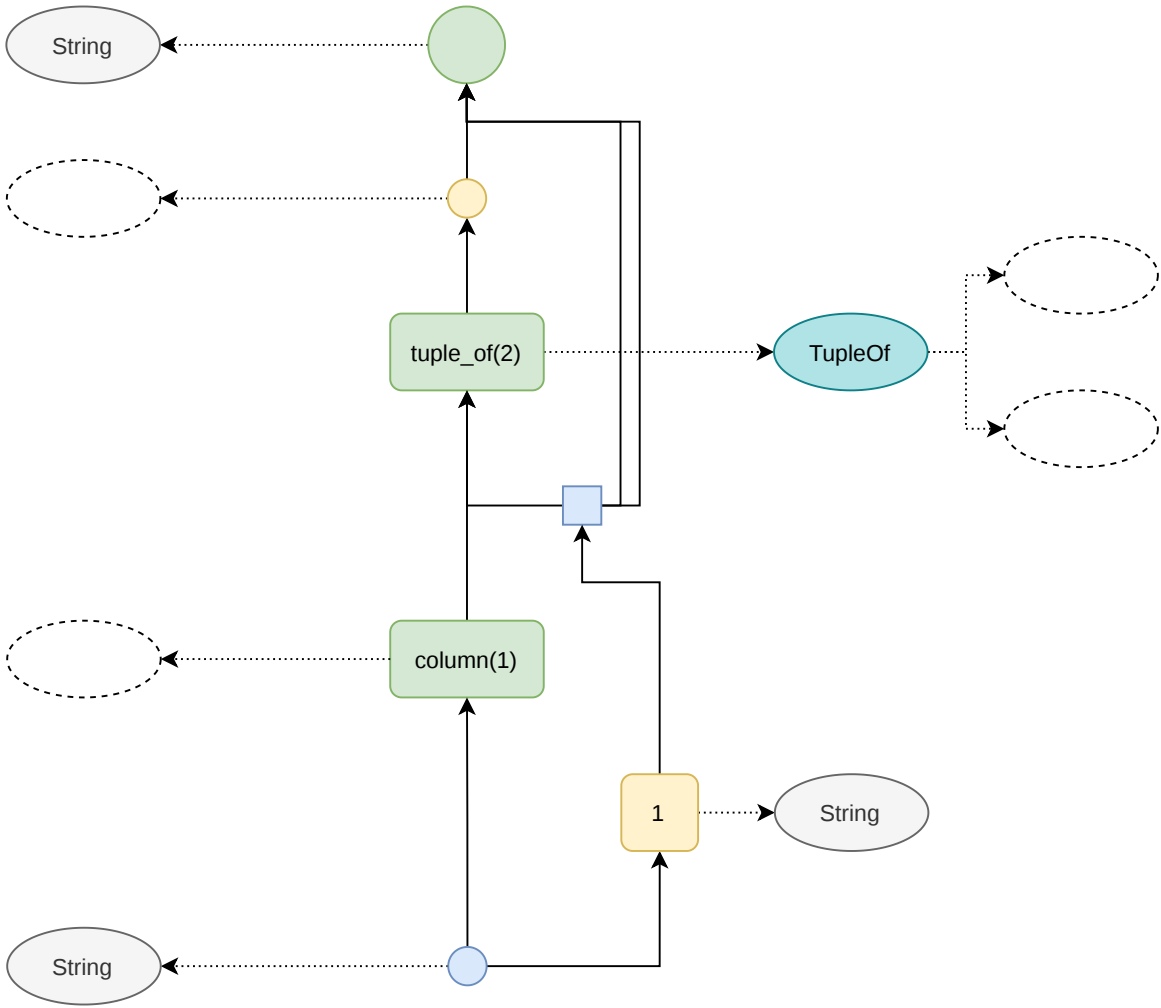
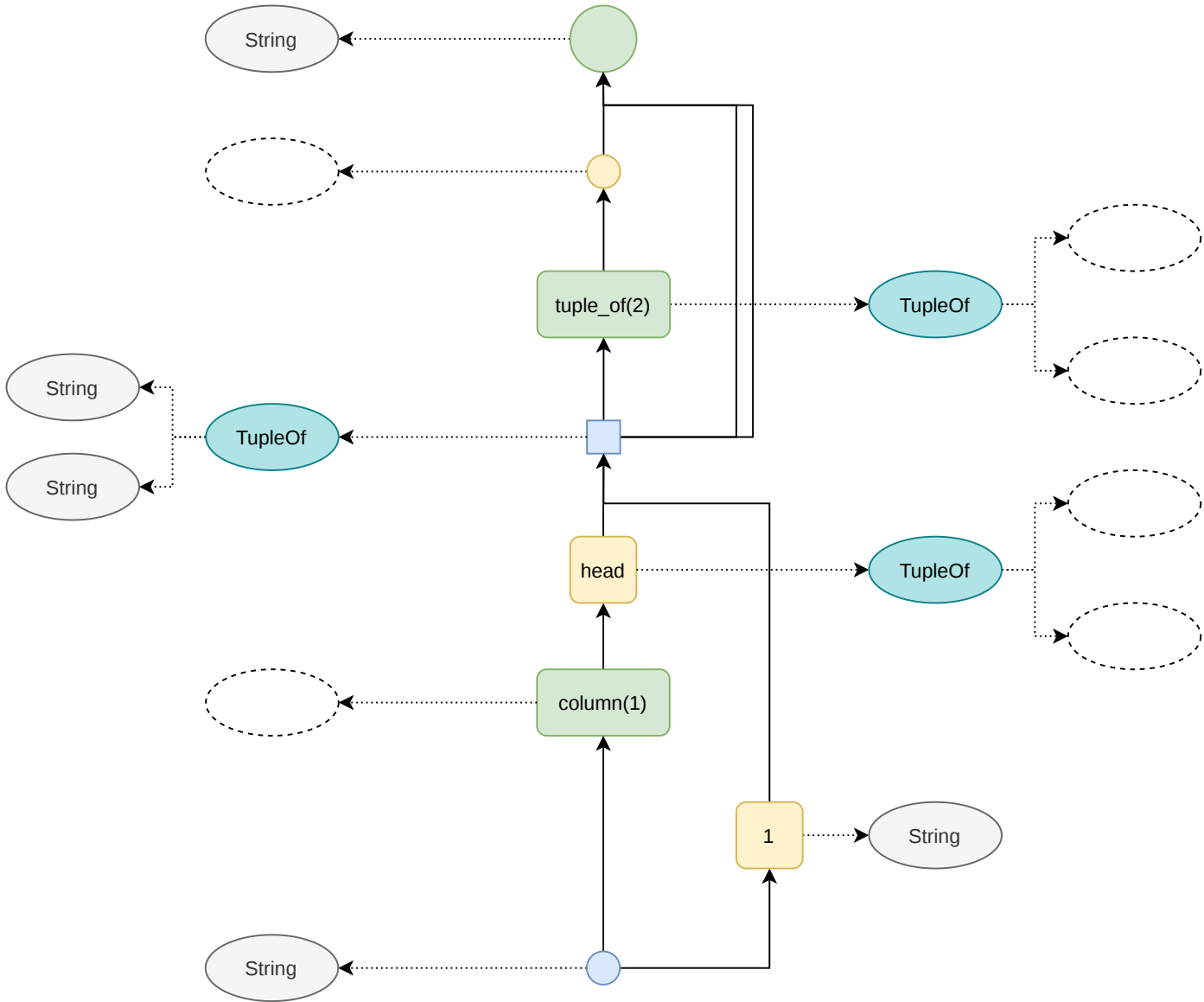
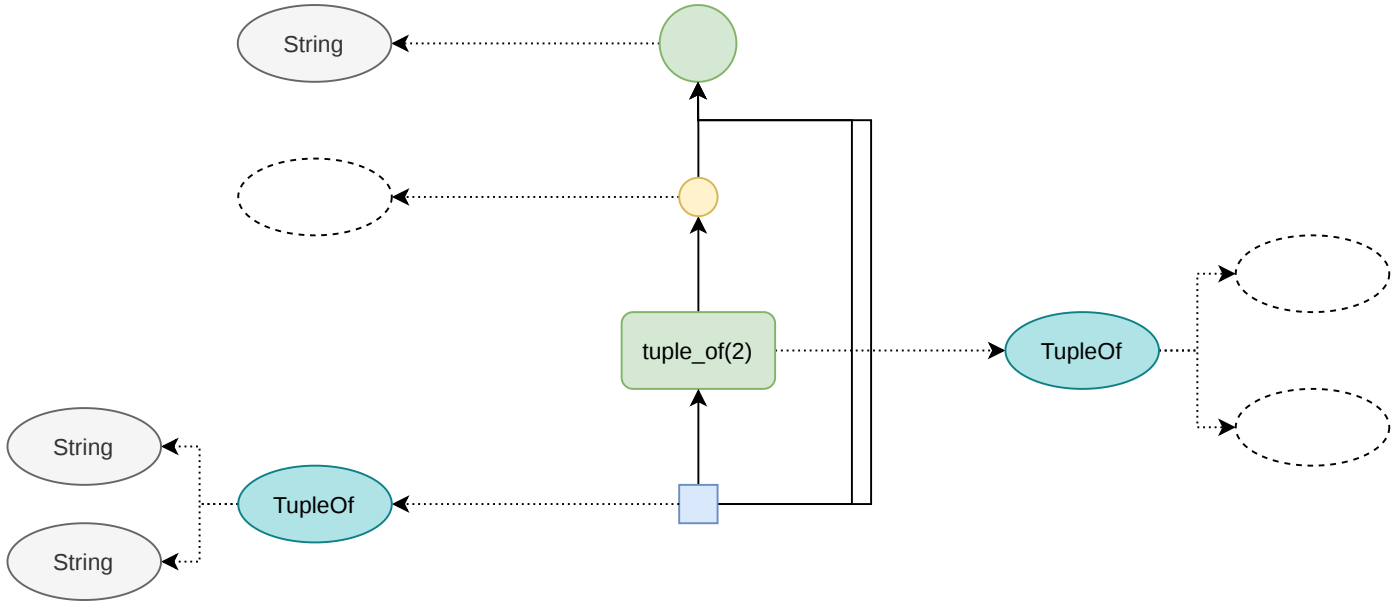
- Initial Table:** A flat table with two columns: an index (1) and a value ("Hello World").
- String Representation:** The value is converted to a string representation: `String["Hello", "World"]`.
- Initial Tree Structure:** A tree structure is created where the root node (index 1) branches into two child nodes (index 2). The left child contains the value "1", and the right child contains the value "Hello".
- Transformation:** The tree structure is transformed into a more complex hierarchical structure. The root node (index 1) branches into two child nodes (index 2). The left child contains the value "1", and the right child contains the value "HELLO".
- Final Tree Structure:** The final tree structure is a more complex hierarchical structure. The root node (index 1) branches into two child nodes (index 2). The left child contains the value "1", and the right child contains the value "HELLO".



wrap()



chain\_of(tuple\_of(2), column(1))



sieve\_by0

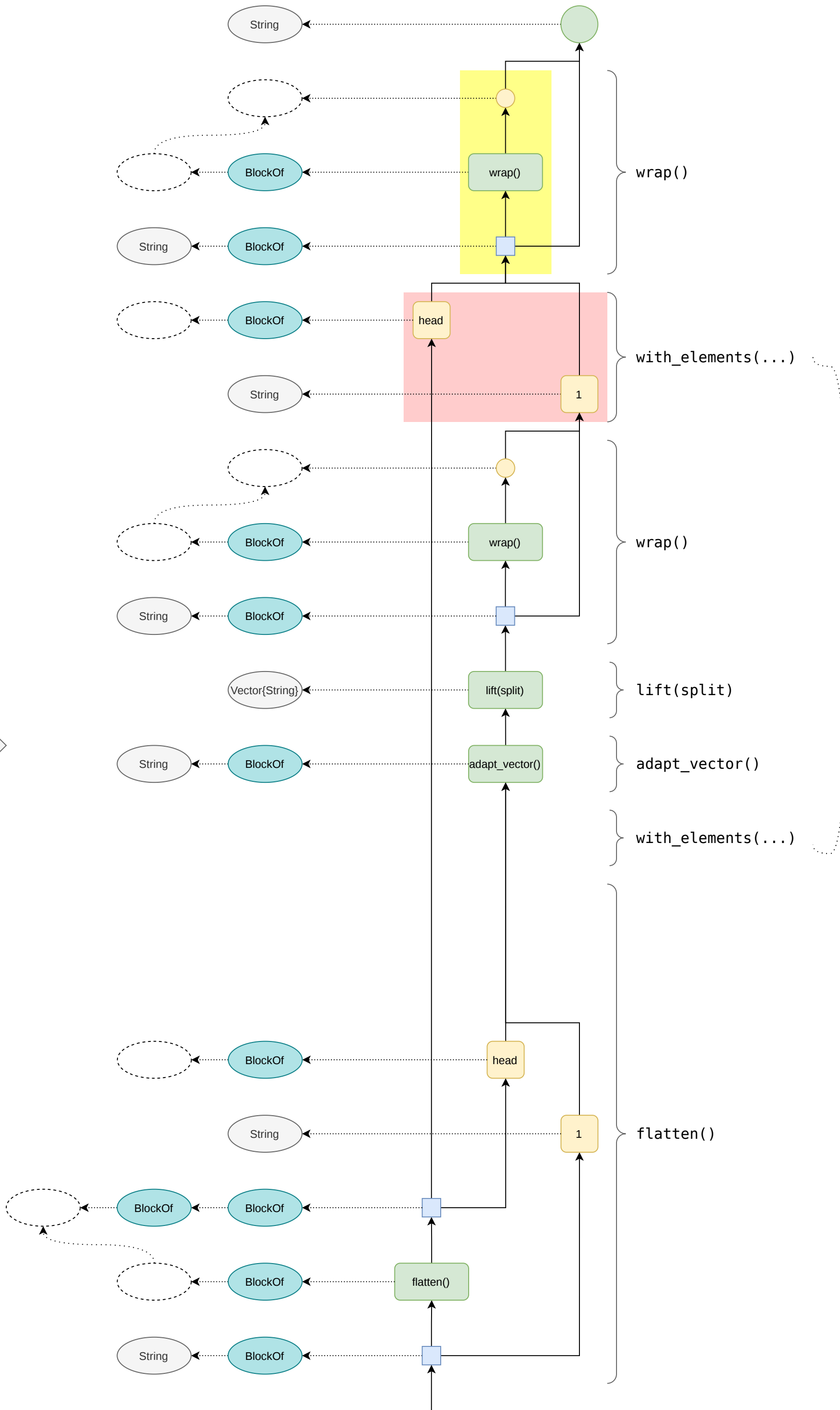
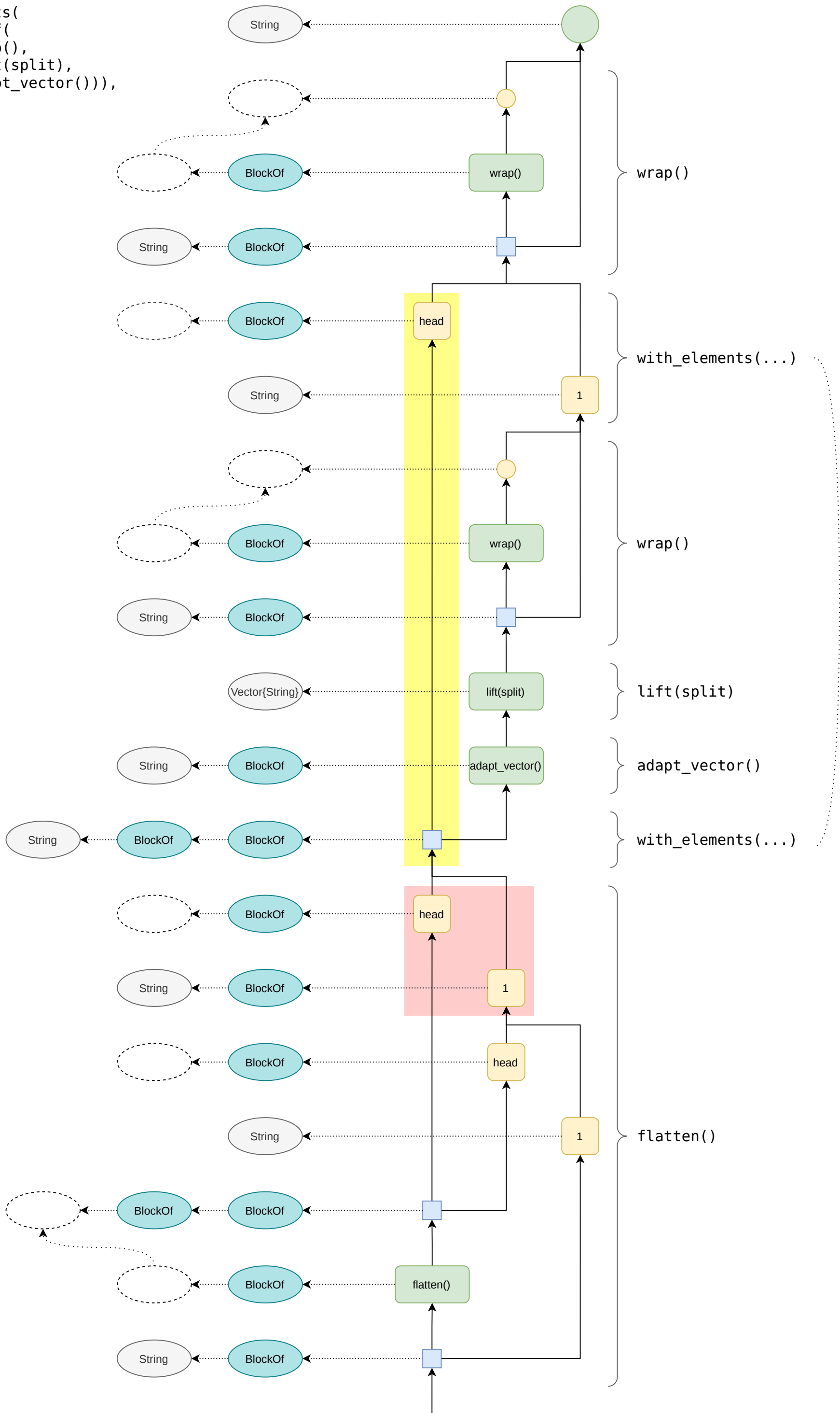


chain\_of(wrap(), block\_length())



@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)

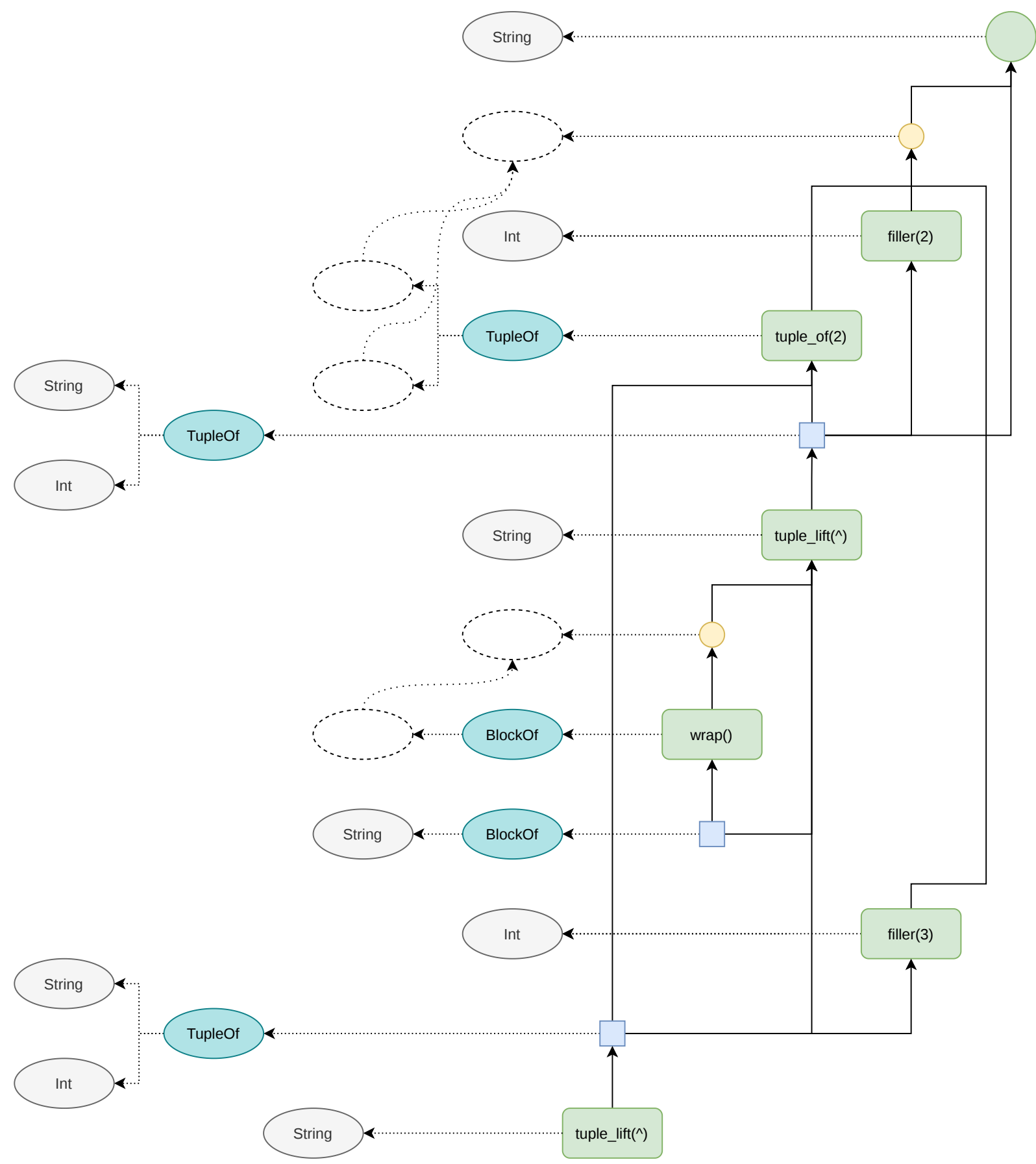
```
chain_of(
  wrap(),
  with_elements(
    chain_of(
      wrap(),
      lift(split),
      adapt_vector()),
    flatten())
```







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

$$\{it^2, (it^2)^3\}$$


```
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())
```

