

The diagram illustrates the transformation of a flat table into a hierarchical tree structure through four stages, connected by large grey arrows:

- Stage 1:** A flat table with two columns: an index column containing '1' and a data column containing 'Hello World'.
- Stage 2:** The data is split into two rows based on a hidden pivot point (represented by a small box). The resulting table has two rows:
 

1	1
2	3

 and
 

1	"Hello"
2	"World"
- Stage 3:** The data is further processed, resulting in:
 

1	1
2	3

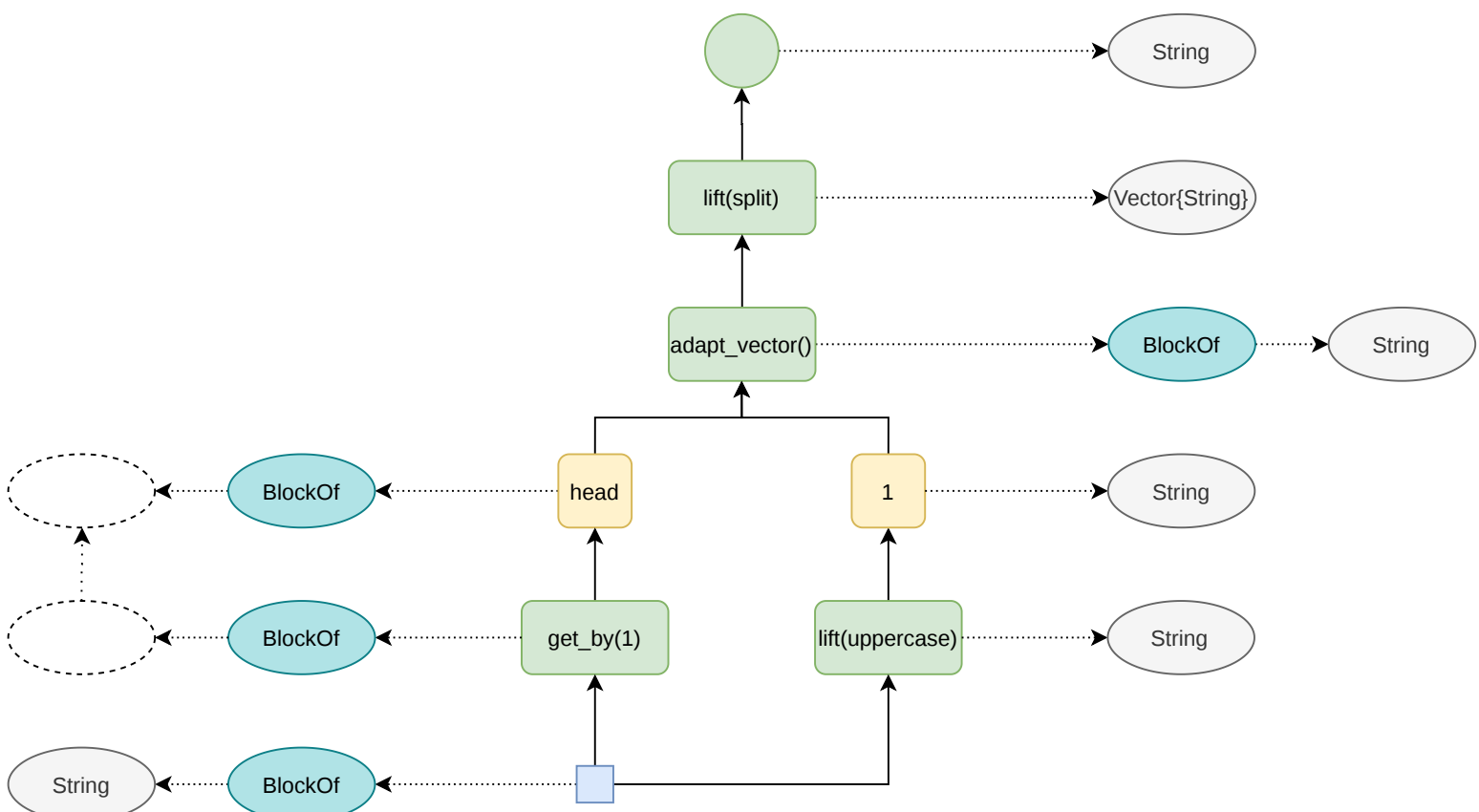
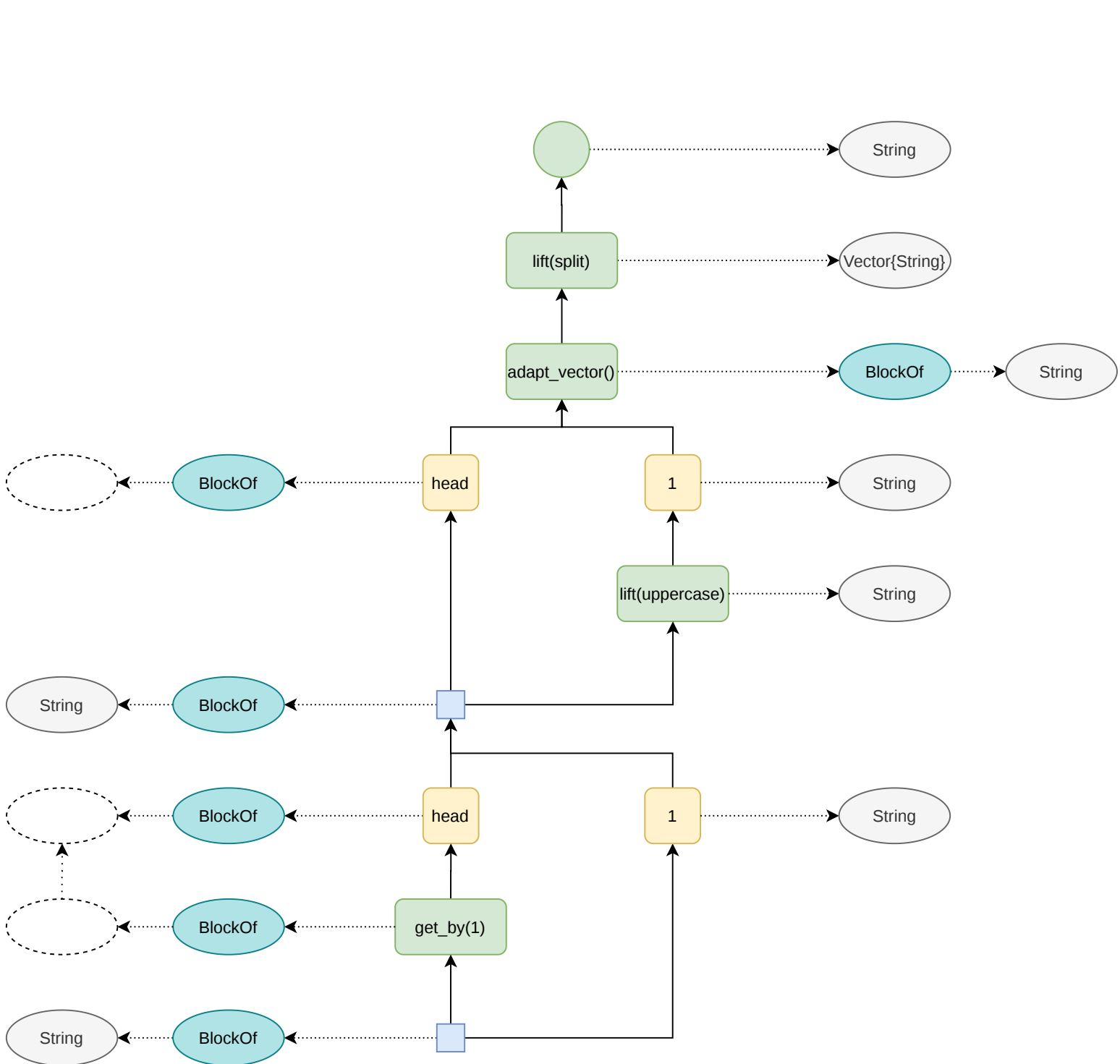
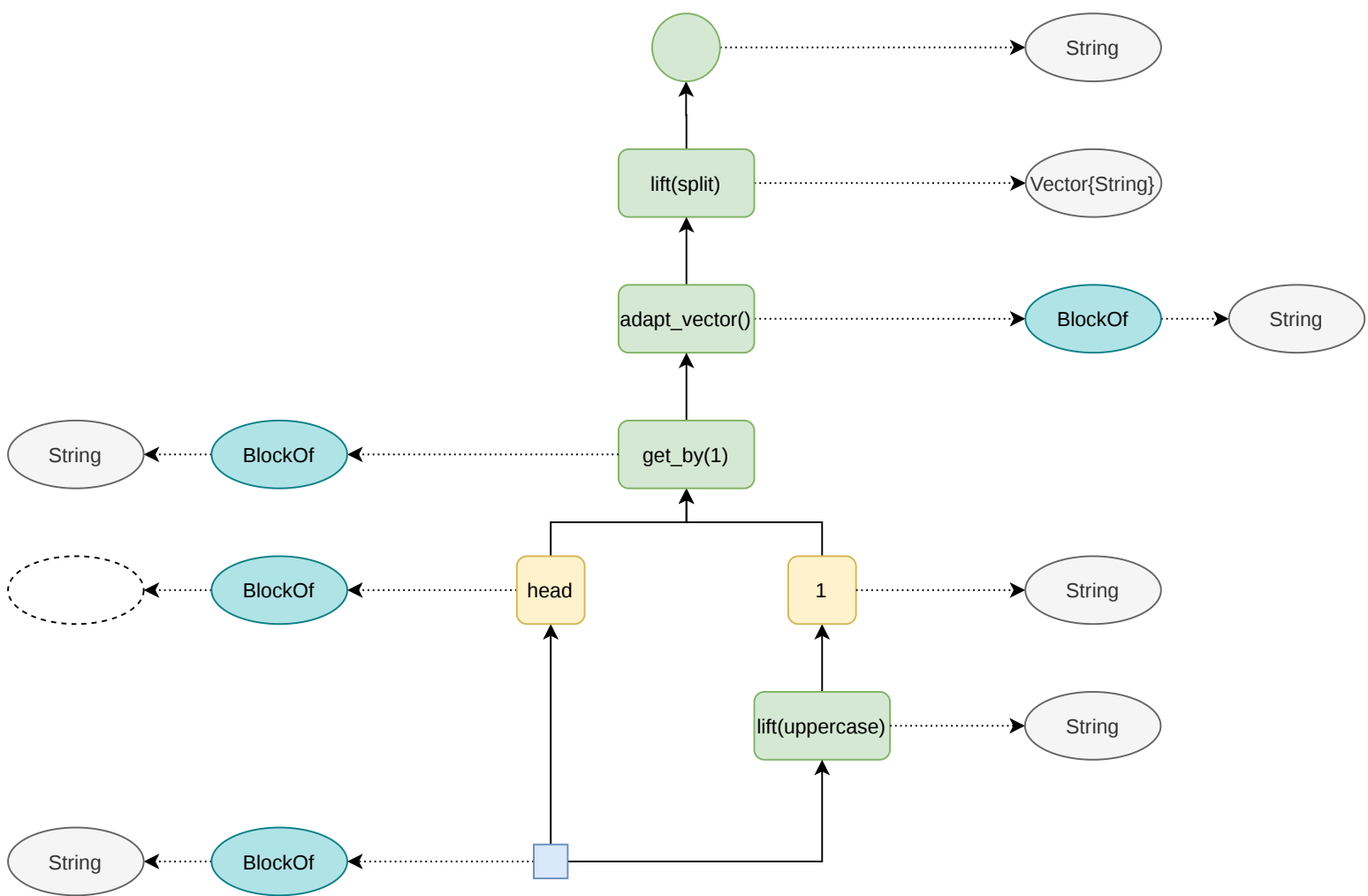
 and
 

1	"HELLO"
2	"WORLD"
- Stage 4:** The final stage shows a hierarchical tree structure. The first table from Stage 3 is transformed into:
 

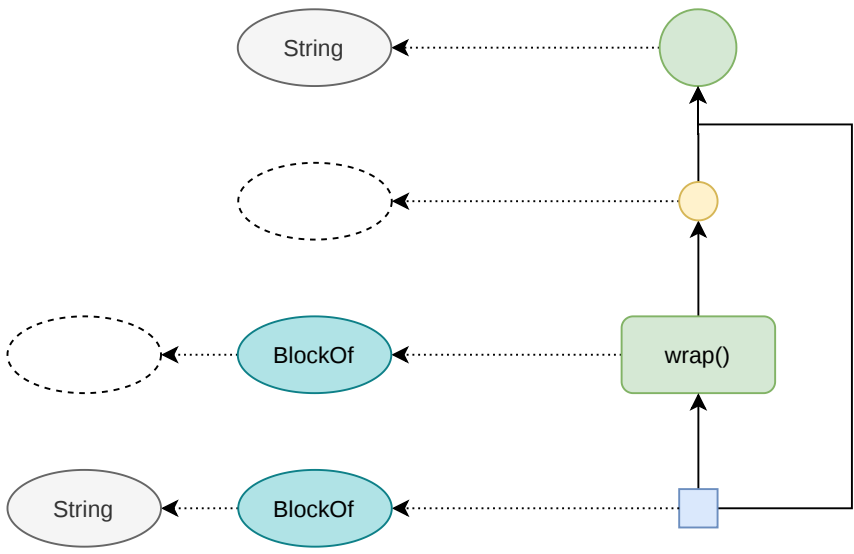
1	1
2	2

 The second table from Stage 3 is transformed into a single row:
 

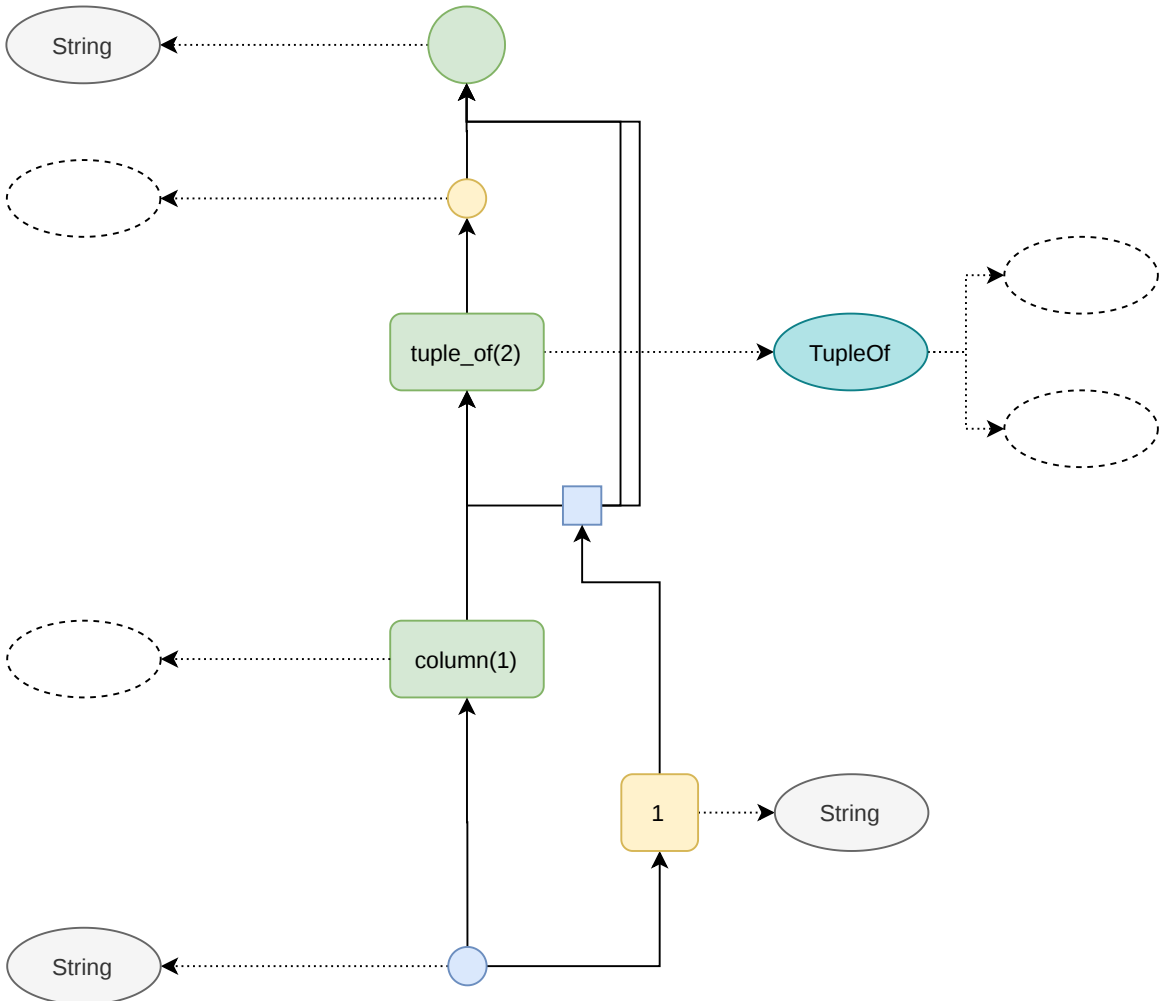
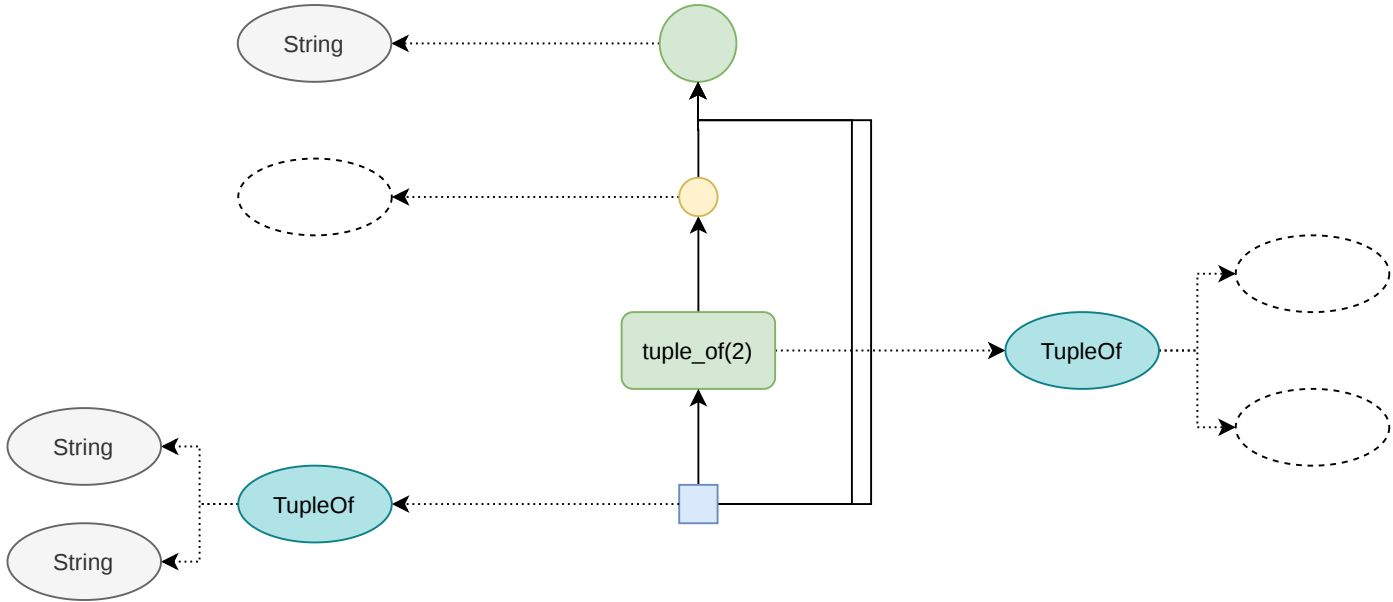
1	1
---	---



wrap()



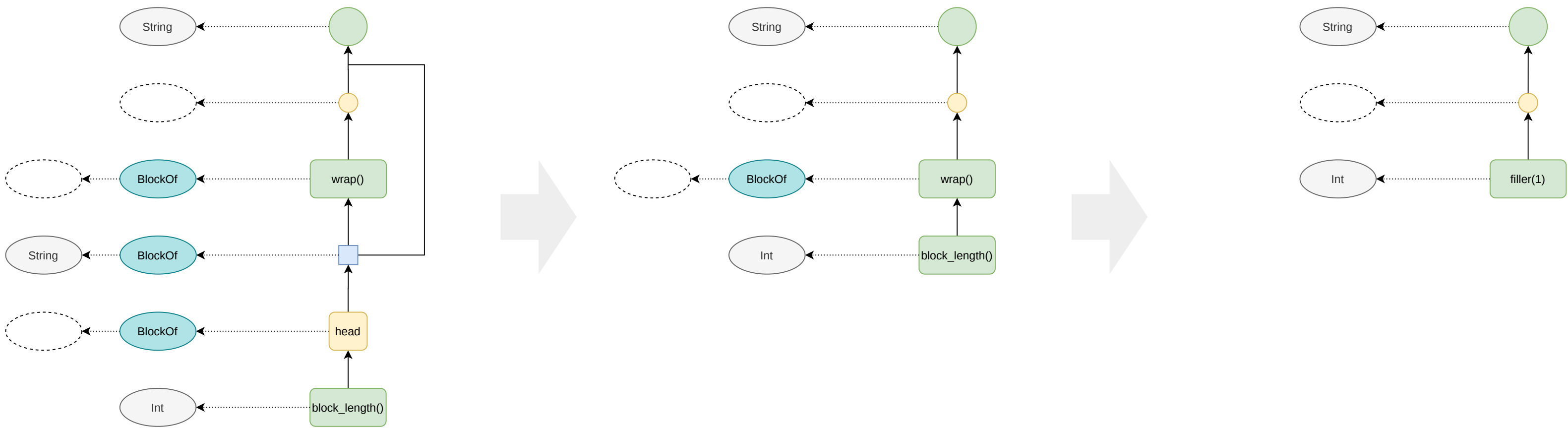
chain\_of(tuple\_of(2), column(1))



sieve\_by()

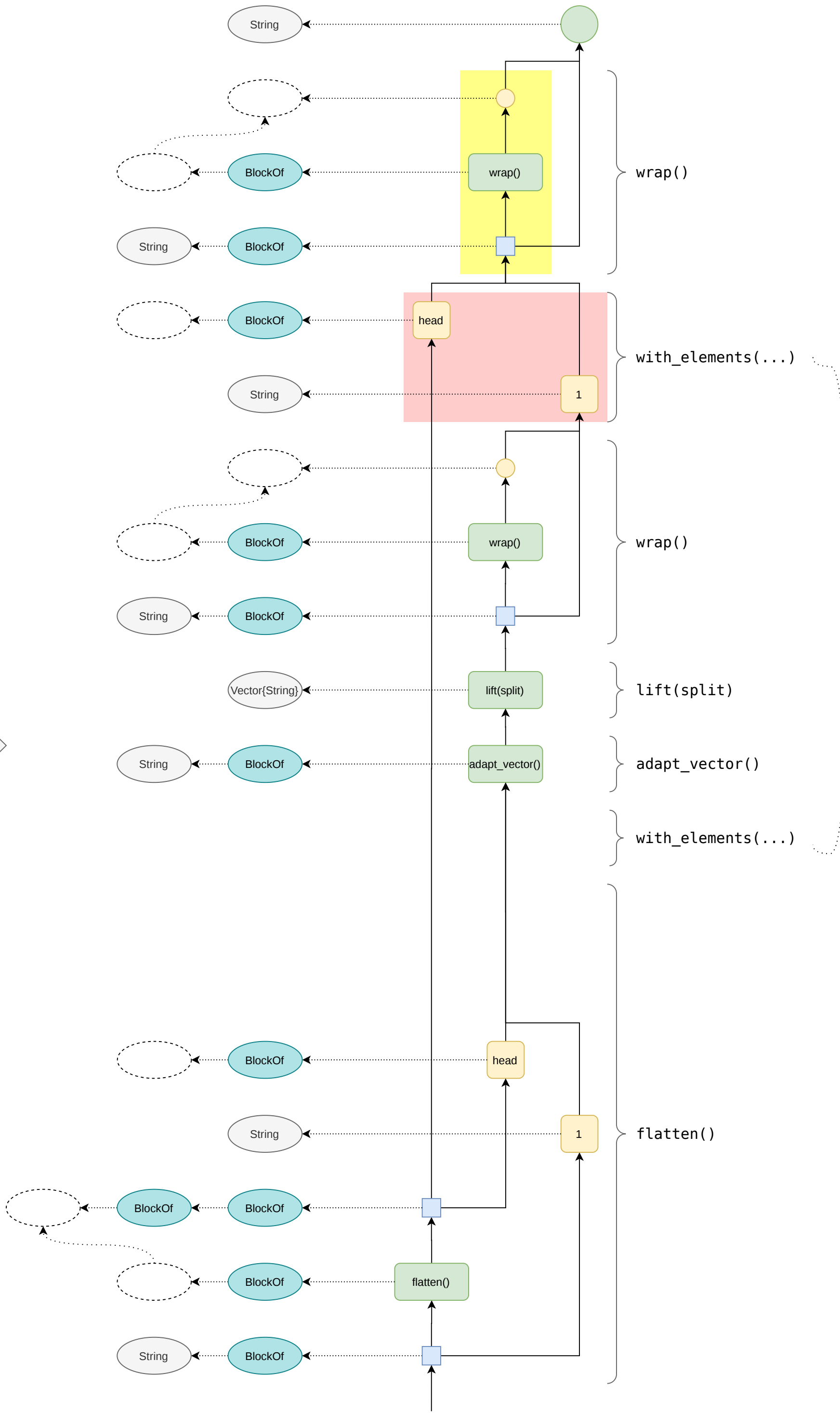
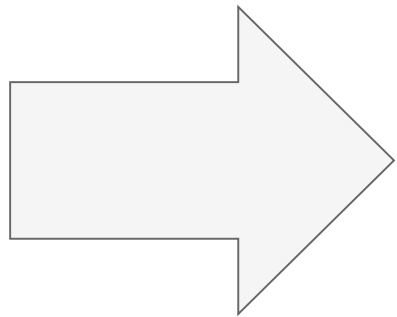


chain\_of(wrap(), block\_length())

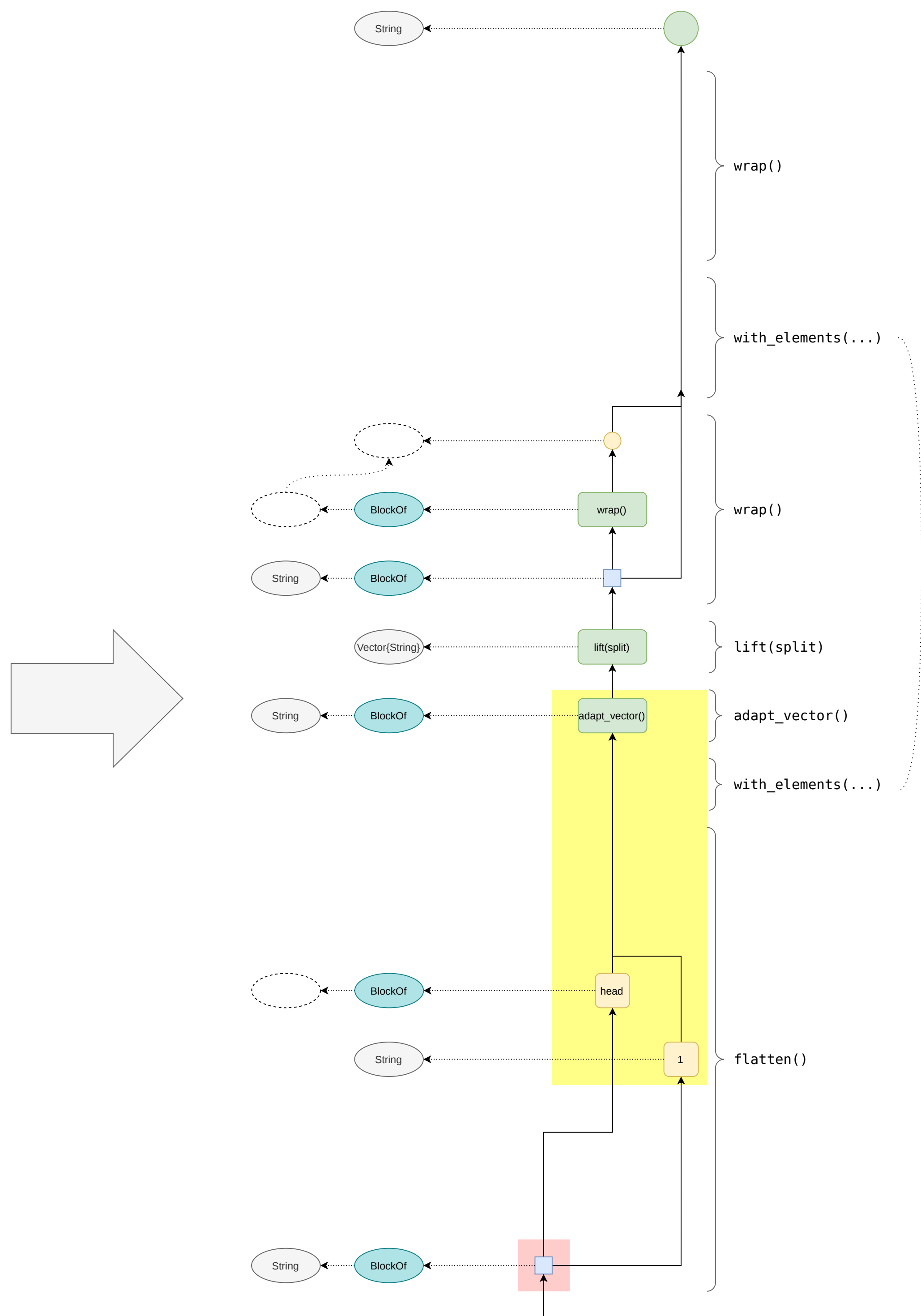


@query "Hello World" split(it)

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



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



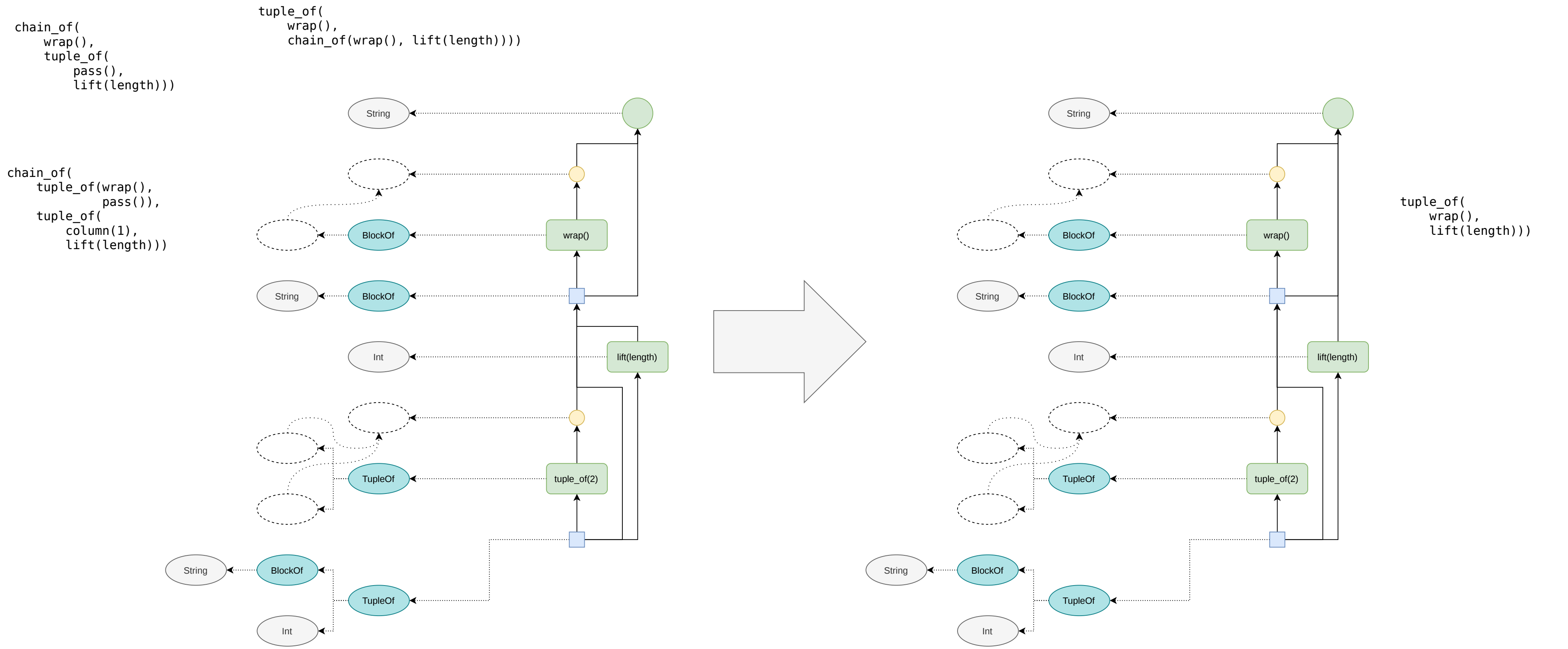




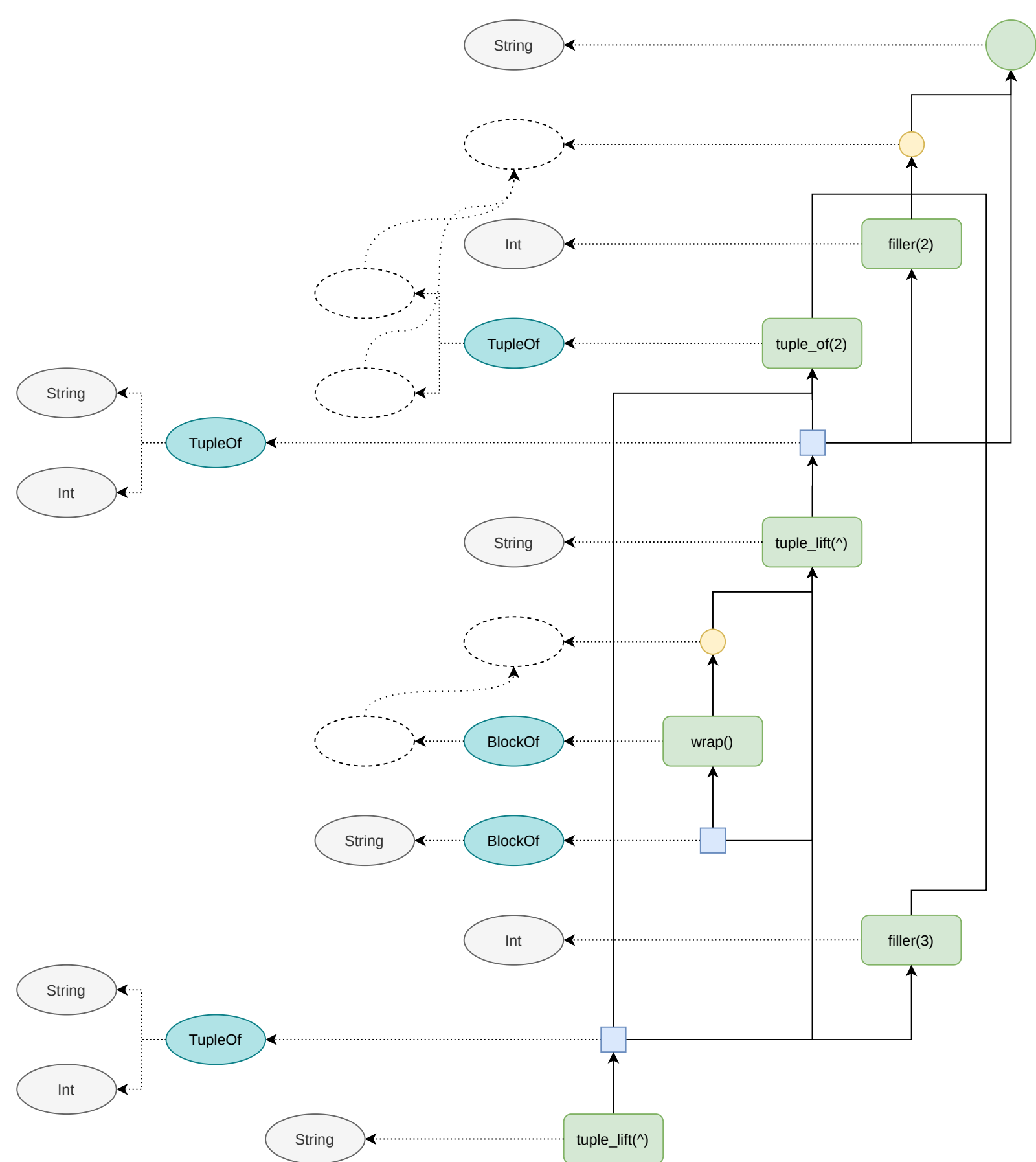
@query "Hello World" split(it)

```
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())
```

