





```

struct EvalNode
  p::Pipeline
  i::NodeRef
end

Nothing

struct PartNode
  n::NodeRef
  k::Int
end

struct HeadNode
  n::NodeRef
end

struct JoinNode
  head::NodeRef
  parts::Vector{NodeRef}
end

struct RootNode
end

mutable struct NodeRef
  node::Union{Nothing,Node}
  shp::AbstractShape
end

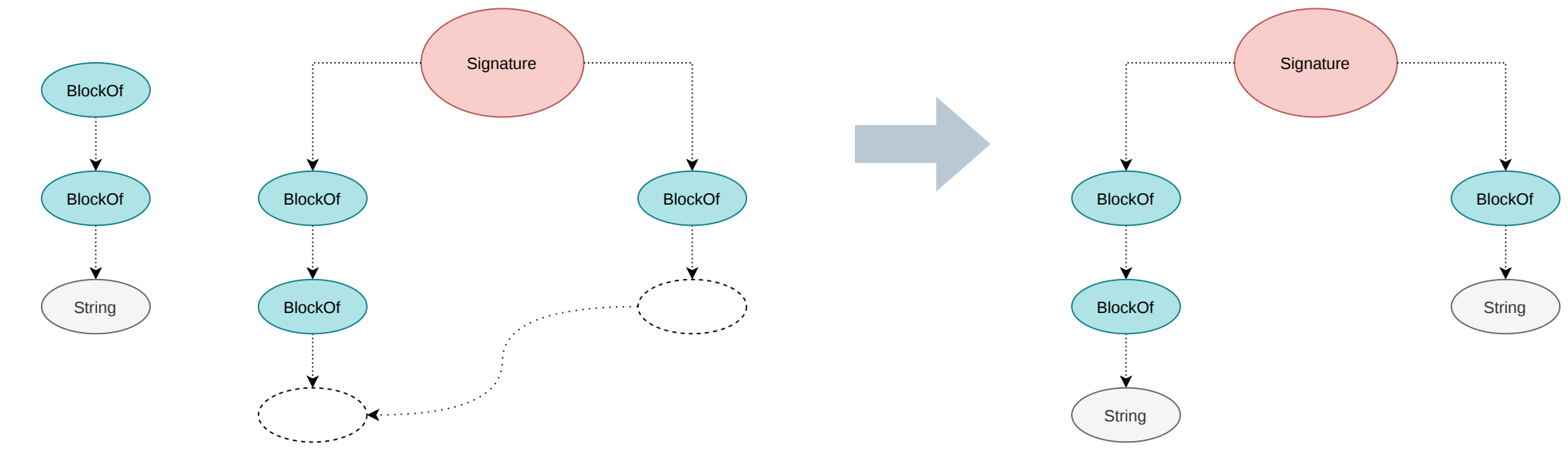
```



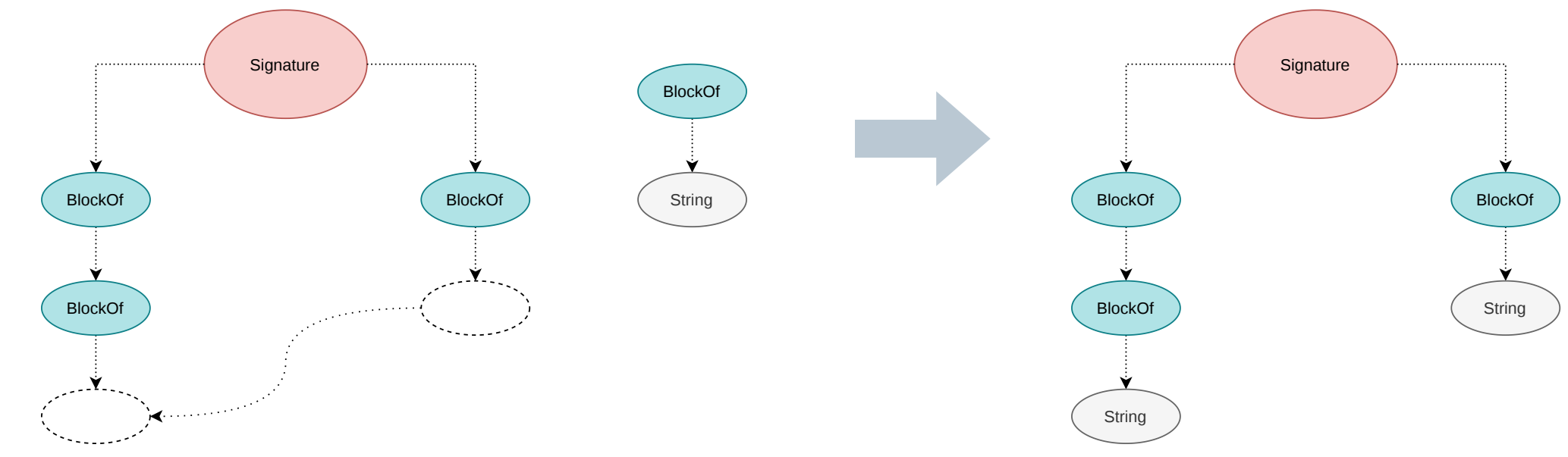
substitution(shp, repl)



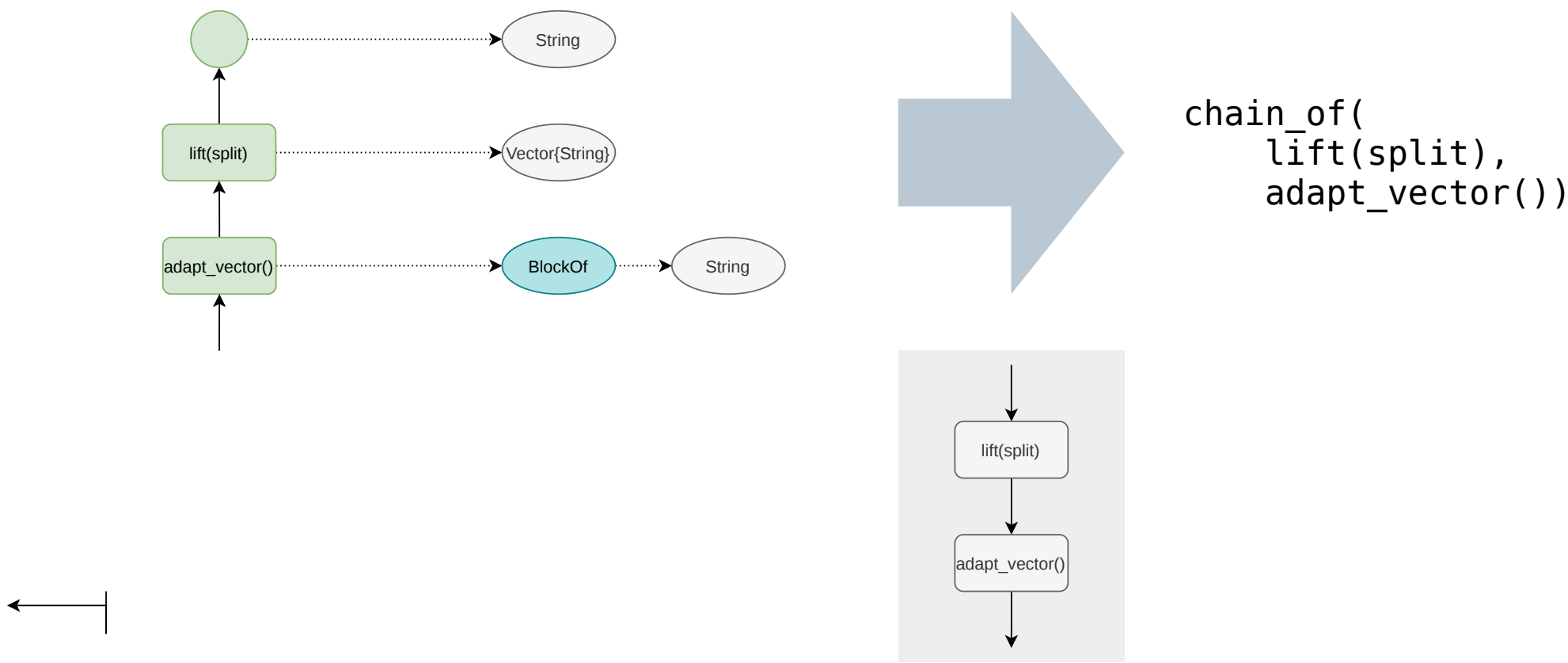
refine\_source(shp, sig)



refine\_target(sig, shp)



@query "Hello World" split(it) # after rewrite\_unwrap



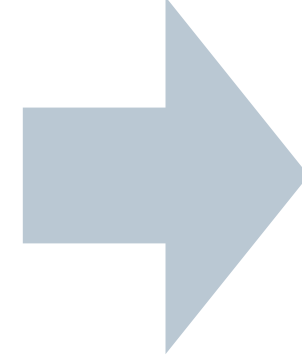
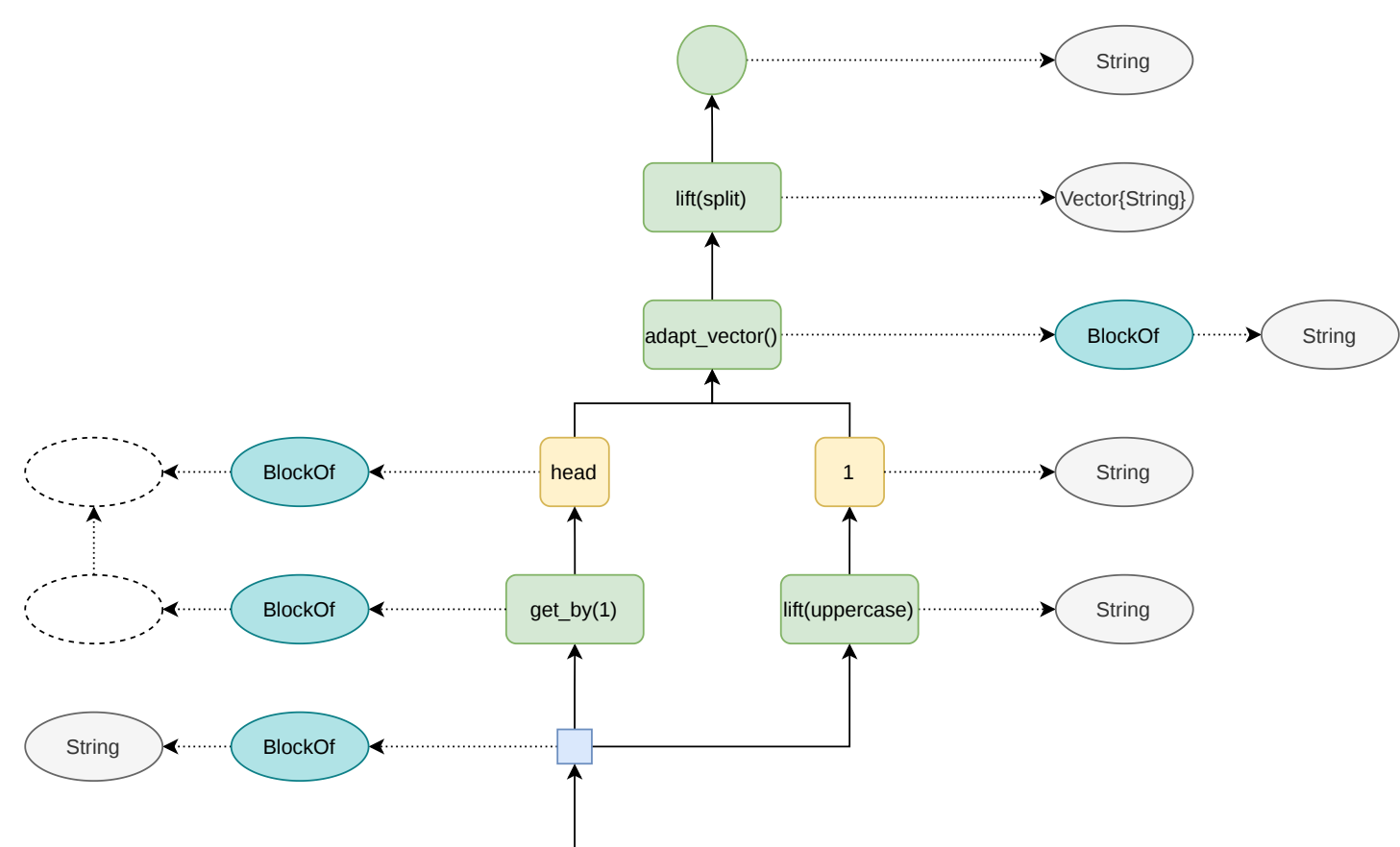
@query "Hello World" split(it).uppercase(it) # after rewrite\_unwrap



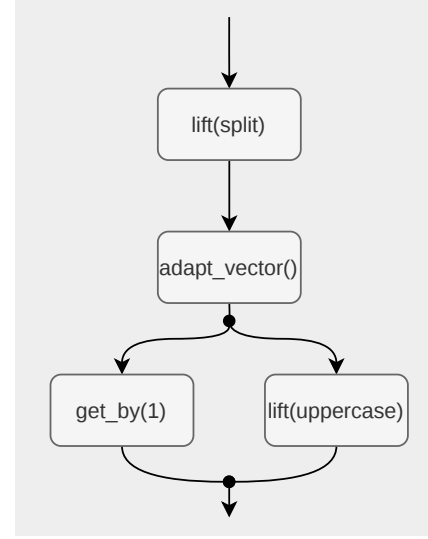
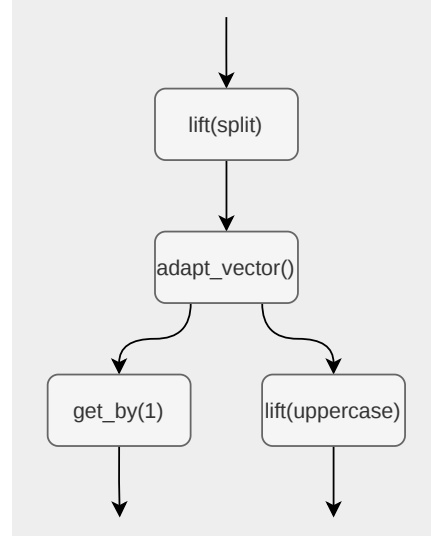
@query "Hello World" split(it).first() # after rewrite\_unwrap



```
@query "Hello World" split(it).uppercase(it).first() # after rewrite_unwrap
```



```
chain_of(
  lift(split),
  adapt_vector(),
  get_by(1, x0tol),
  with_elements(lift(uppercase)))
```



@query "Hello World" split(it)

