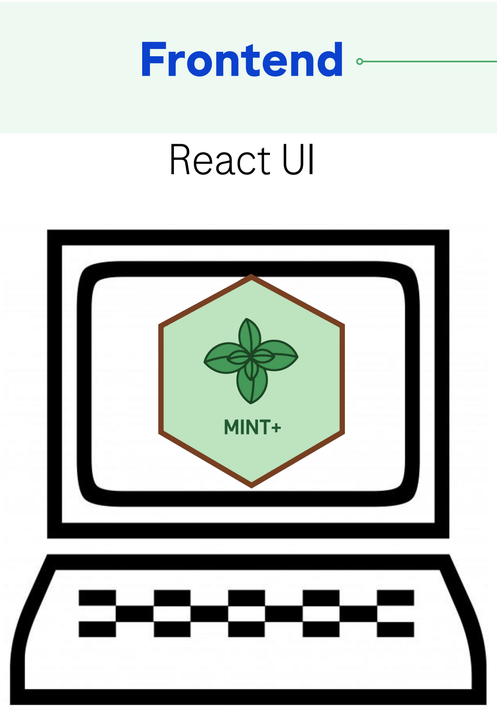
MINT+: Web App with R Brains for SDTM Automation

What's SDTM?

- Study Data Tabulation Model developed by CDISC
- Used for organizing data collected in clinical trials
- Enforces industry-wide standardization of data
- Required for submission to regulatory authorities

Traditional approach time-consuming & error-prone




```
#* Plot a histogram
#* @serializer png
#* @get /plot
function() {
  rand <- rnorm(100)
  hist(rand)
}

#* Return the sum of two numbers
#* @param a The first number to add
#* @param b The second number to add
#* @post /sum
function(a, b) {
  as.numeric(a) + as.numeric(b)
```

Building plumber API programmatically using a package structure

```
pr <- plumber::pr(envir = environment()) %>%
   plumber::pr_filter("logger", logger) %>%
   plumber::pr_handle(
     method = "GET",
     path = "/analyses/<study_number>",
    # Using function decorator
     handler = promise_future_insert("get_analyses"),
     tag = "Read",
     comments = "Retrieve existing analysis versions per study"
   )


custom_serialize <- function (val, req, res, errorHandler) {
  # Accept: application/x-msgpack
  ...
}

# Register serializer in plumber
register_serializer("name", custom_serialize, verbose = TRUE)
```

Key Features of MINT+

- Interactive UI
- Digital study SDTMv Specification
- Locking Feature
- Development Workflows
- Store & Reuse
- Molecule level consistency

Curious about the open source work on {sdtm.oak}? Visit the link!

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