

external file formats

anndata in memory & on disk

external applications

.CSV

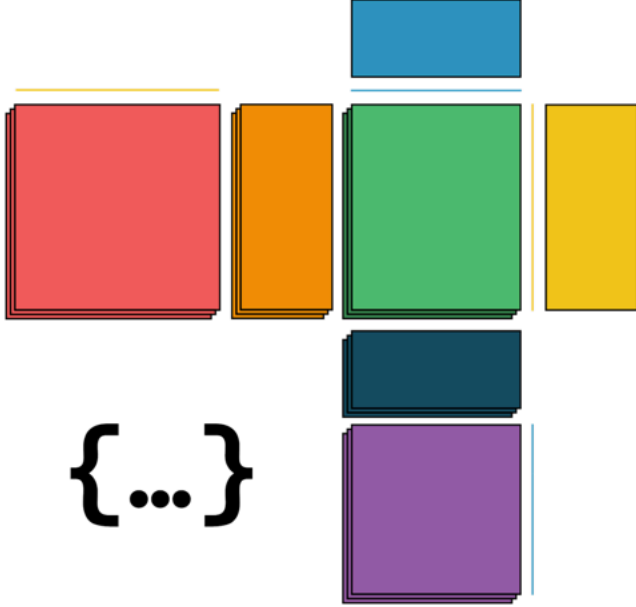
.tsv

.loom

CellRanger output

...

AnnData



{...}

.h5ad



.zrad



X: csr_matrix

layers

counts: csr_matrix

obs: dataframe

celltypes: categorical

obsm

pca: array

varm

pcs: array

obsp

connectivities: csr_matrix



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ecosystem of Python APIs



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