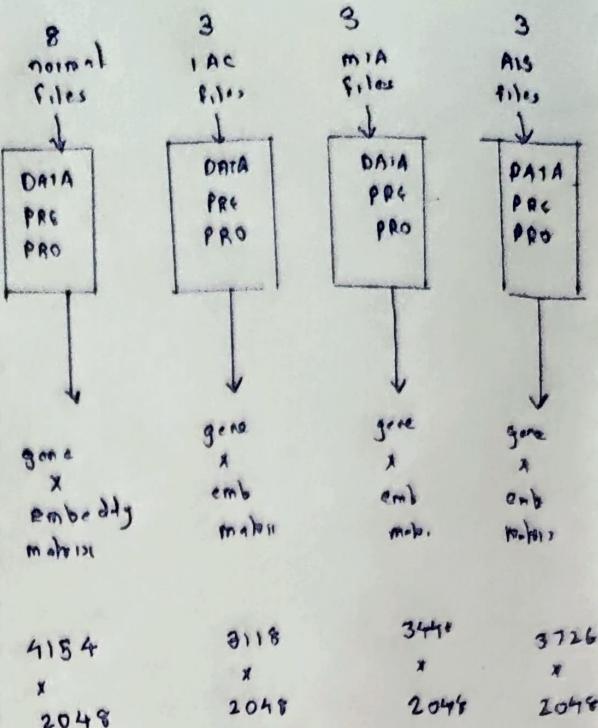
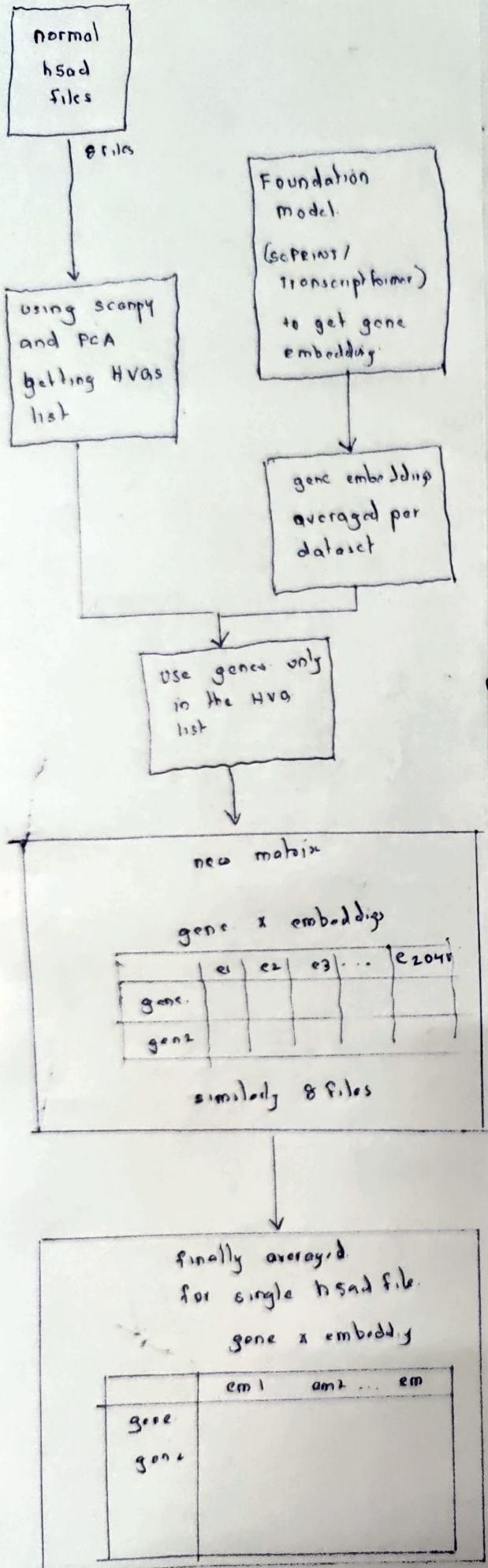


## Steps

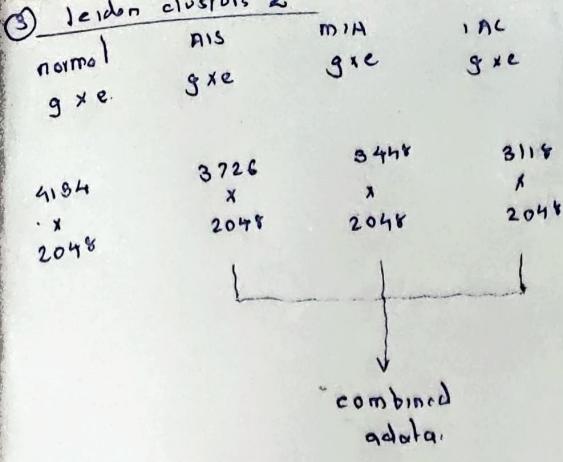
- ① DATA PREPROCESSING & HVG SELECTION
- ② LEIDEN CLUSTERS SET1
- ③ LEIDEN CLUSTERS SET2
- ④ DRUG TARGET GENES SELECTION
- ⑤ CREATING SIMILARITY GRAPH
- ⑥ GENE SET ENRICHMENT ANALYSIS

gene set enrichment analysis

## ① DATA PREPROCESSING AND HVMS

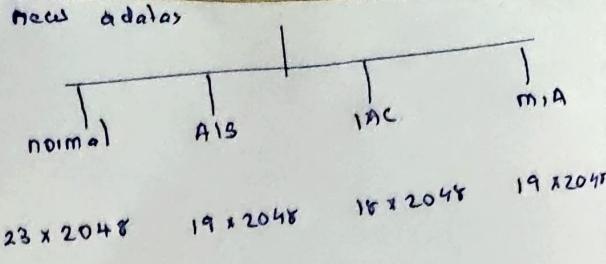


## ② Leiden closters set 1.



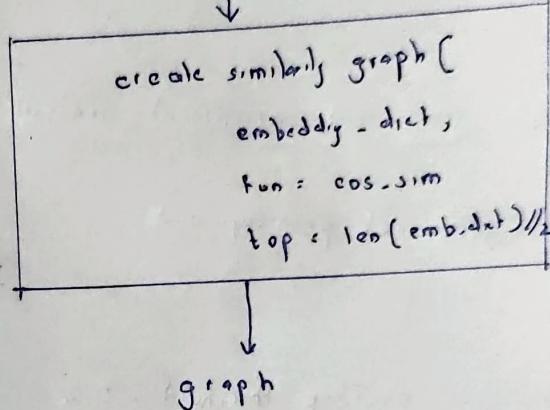
combined adata obs

cluster 2 here.

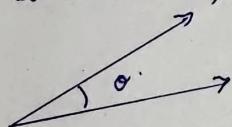


### ⑤ Create similarity graph

gene x embedding vector



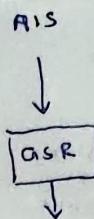
cosine similarity



highest ranked gene pairs have highest cosine similarity.  
means those two genes are close in that case

plot the graph here.

Embeddings labels	no of missing genes
normal	9 missing
IAC	14
AIS	13
MIA	13



## ⑥ gene set enrichment analysis

gene set pathways used

gone overlap threshold = 0.2

## Results

IAC  
↓  
GSR  
↓

normal  
↓  
GSR