

Shiny PCA

1. Installation

Requires miniconda or anaconda installed in for the user.

1.1 Run the install.bat file to create env and install necessary dependencies.

1.2 Manual install

Dependencies

r-base v 4.4.3

r-essentials

r-shiny

r-plotly

r-htmlwidgets

r-biocmanager

r-reactable

CMD:

```
conda create -n shiny_pca
conda activate shiny_pca
conda install -c conda-forge r-base=4.4.3 r-essentials r-shiny r-plotly
r-htmlwidgets r-biocmanager r-reactable
```

1.3 Use R to install deseq2

CMD:

```
BiocManager::install("DESeq2")
```

2 App usage manual

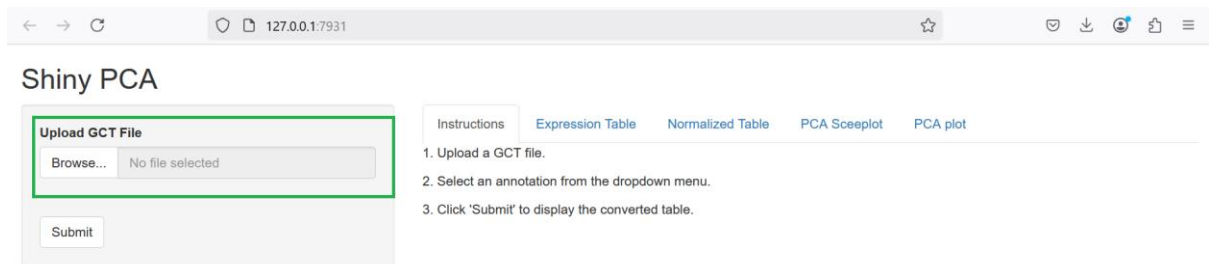
2.1 To launch the application run the following commands in powershell.

```
conda activate shinyPCA  
run_shinyPCA.bat
```

The above command will start the shiny app.

2.2 Input Data

The app takes gct file as input, upload the file in the marked section



Shiny PCA

Upload GCT File

Browse... No file selected

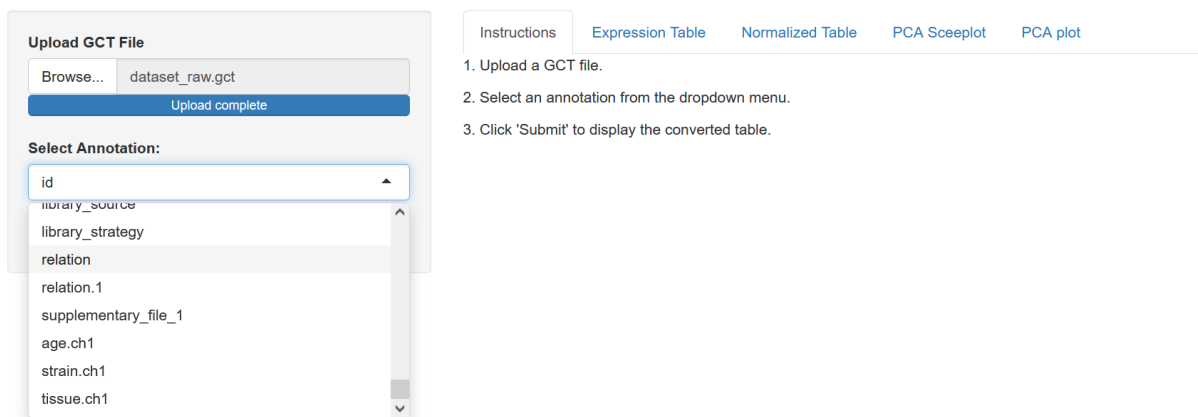
Submit

Instructions Expression Table Normalized Table PCA Scapeplot PCA plot

1. Upload a GCT file.
2. Select an annotation from the dropdown menu.
3. Click 'Submit' to display the converted table.

Once uploaded, user will be provided with the option to select metadata/annotation from the available information in gct file

Shiny PCA



Shiny PCA

Upload GCT File

Browse... dataset_raw.gct

Upload complete

Select Annotation:

id

library_source

library_strategy

relation

relation.1

supplementary_file_1

age.ch1

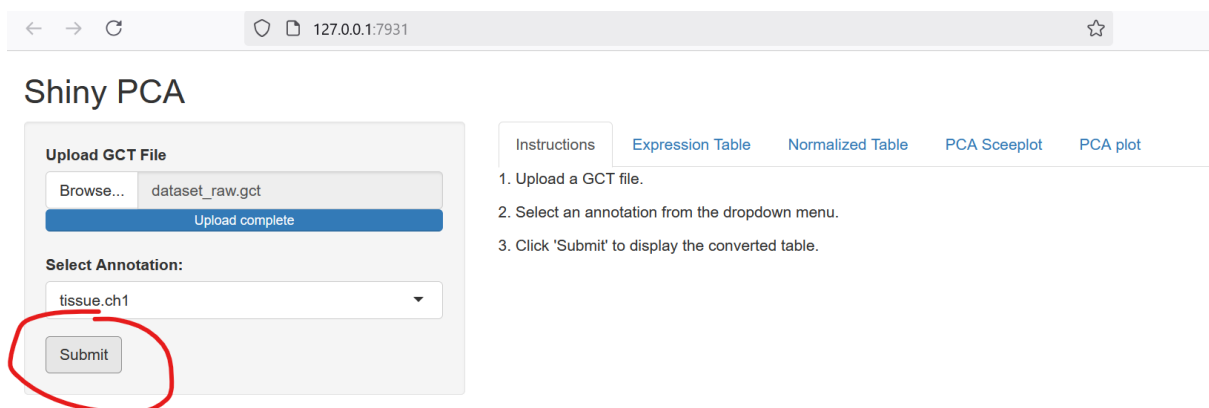
strain.ch1

tissue.ch1

Instructions Expression Table Normalized Table PCA Scapeplot PCA plot

1. Upload a GCT file.
2. Select an annotation from the dropdown menu.
3. Click 'Submit' to display the converted table.

Select desired metadata from the drop down menu and click submit.



Shiny PCA

Upload GCT File

Browse... dataset_raw.gct

Upload complete

Select Annotation:

tissue.ch1

Submit

Instructions Expression Table Normalized Table PCA Scapeplot PCA plot

1. Upload a GCT file.
2. Select an annotation from the dropdown menu.
3. Click 'Submit' to display the converted table.

Once submitted users can browse the tabs on the main page to browse the result.

