

genven project

backup document

Introduction:

What and Why?

What:

- genvenn - Gene list comparison visualisation venn diagram

Why:

- to clone and improve functionalities done by jVenn - <http://bioinfo.genotoul.fr/jvenn/>
- to compare and visualise gene list set intersections in various types of venn diagrams

Inputs:

1. User Input
2. Uploaded JSON File
3. Parsed Example

Demo:

- Objects
- Intersections
- Interactivity
- File Import/Export

Feedback:

Cool:

- Learning JavaScript(controlling event behaviours)
- SVG - cool and potentially appealing future

Challenging

- venn diagram objects drawing
- Adjustments
- Calculating Intersections
- Making Intersections Interactive
- D3js functions (~~enter~~, ~~update~~, ~~exit~~, event handlers)
- Parsing and uploading files

Easy (CSS and HTML) :)

Resources:

4. jvenn - <http://bioinfo.genotoul.fr/jvenn/>
5. venny - <http://bioinfogp.cnb.csic.es/tools/venny/> - input to jvenn
6. vennjs - <https://github.com/benfred/venn.js> - d3js implementation of area proportional venn diagram

7. papers - jvenn publication (<http://www.biomedcentral.com/1471-2105/15/293>) and others
8. sample mathematical venn diagram drawings - <http://cs.sru.edu/~ddailey/canterbury/Drawings.html>

Sample JSON - file format

```
{  
  "s1": ["G000001", "G000002", "G000003", "G000004", "G000005"],  
  "s2": ["G000001", "G000002", "G000003", "G000007", "G000008"],  
  "s3": ["G000001", "G000002", "G000003", "G000004", "G000012"],  
  "s4": ["G000001", "G000002", "G000003", "G000006", "G000004"],  
  "s5": ["G000001", "G000002", "G000003", "G000007", "G000008"],  
  "s6": ["G000001", "G000002", "G000003", "G000005", "G000004"],  
  "s7": ["G000001", "G000002", "G000003", "G000006", "G000008"]  
}
```