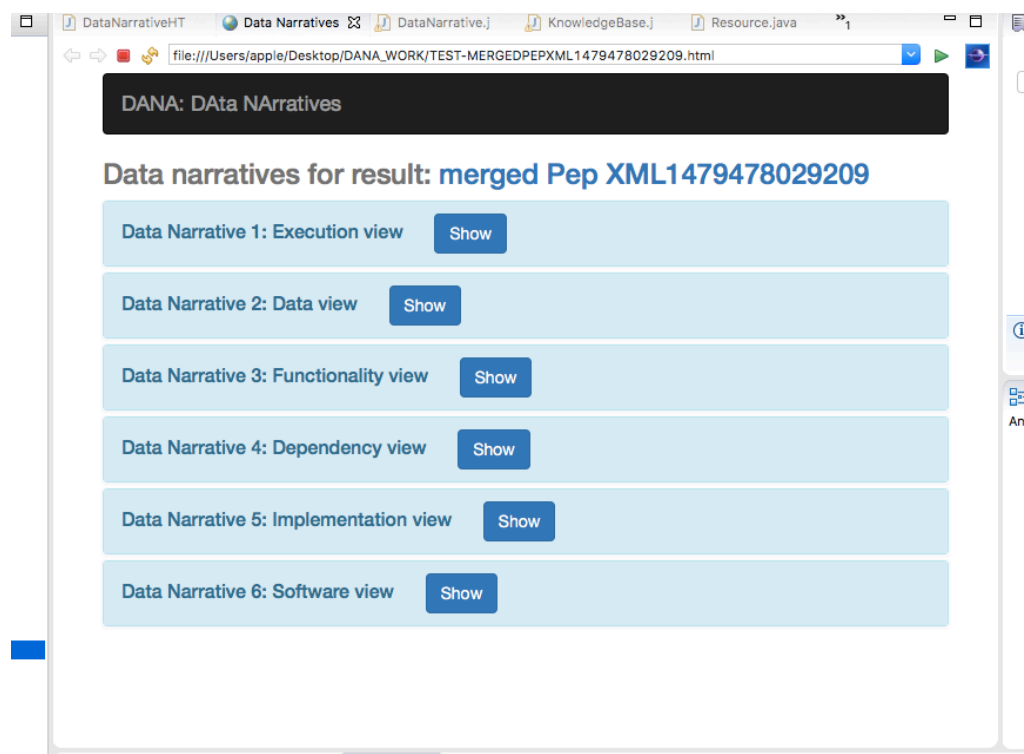PROGRESS ON DANA OPTIMISATION.

When I tried to run the DANA program, it had few errors, which I fixed by doing the following changes:

```java
/**
 * Function designed to add a span around the text in case we want to hide some of the details
 * when pressing the see more/see less buttons.
 * @param inputText
 * @return
 */
private static String hideText(String inputText){
    return "<span class=\"see\">"+inputText+"</span>";
}

public static void main (String [] args){
    // EXAMPLES FOR THE WEB ANALYTICS SHOWCASE DOMAIN

    //DETECT TOPICS WORKFLOW
    String workflowExecutionURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionAccount/ACCOUNT-DETECTTOPICS-7A1-BF5CF914-816C-4845-AF79-A56672C4
    String workflowTemplateURI="http://www.opmw.org/export/4.0/resource/WorkflowTemplate/DETECTTOPICS-D751713988987E9331980363E24189CE";
    String resultURI = "http://www.opmw.org/export/4.0/resource/WorkflowExecutionArtifact/IMAGE1476159251570";
    String doiFile = "examples//highlyConnectedDrugs//doiAnnotations.ttl";
    String motifAnnotations = "examples//highlyConnectedDrugs//motifAnnotations.ttl";
    String ontoSoftFile = null;
    DataNarrativeContext dc = new DataNarrativeContext(workflowExecutionURI, workflowTemplateURI, doiFile, motifAnnotations, ontoSoftFile);
    DataNarrative d = new DataNarrative(dc, resultURI);
    DataNarrativeHTMLSerializer.dataNarrativeToHTML(d, "TOPICS-IMAGE1476159251570.html");
```

Which then produced the result of:

Then, I tried to make it run for the K-CAP(VARIANT CALLING RESQUENCING), the example I am working on, by getting the required input links from the workflow explorer:

```
417    workflowExecutionURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionAccount/ACCOUNT-UNDERSTANDINGUSE-4787F99D-BC79-4914-BC40-343D254BB3CE";
418    workflowTemplateURI="http://www.opmw.org/export/4.0/resource/WorkflowTemplate/UNDERSTANDINGUSERACTIVITY-D751713988987E9331980363E24189CE";
419    resultURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionArtifact/CLUSTERINGRESULT1475981346023.html";
420 /    DataNarrativeContext dc = new DataNarrativeContext(workflowExecutionURI, workflowTemplateURI, doiFile, motifAnnotations, ontoSoftFile);
421 /    DataNarrative d = new DataNarrative(dc, resultURI);
422 /    DataNarrativeHTMLSerializer.dataNarrativeToHTML(d, "UNDERSTANDING-CLUSTERINGRESULT1475981346023.html");
423
424
425    //ADRESS PROBLEMATIC USERS
426    workflowExecutionURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionAccount/ACCOUNT-ADDRESSPROBLEMAT-40285D81-78C6-4913-BE9D-89AC50816161";
427    workflowTemplateURI="http://www.opmw.org/export/4.0/resource/WorkflowTemplate/ADDRESSPROBLEMATICUSERS-D751713988987E9331980363E24189CE";
428    resultURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionArtifact/FILTEREDDOCUMENT11475981333362";
429 /    DataNarrativeContext dc = new DataNarrativeContext(workflowExecutionURI, workflowTemplateURI, doiFile, motifAnnotations, ontoSoftFile);
430 /    DataNarrative d = new DataNarrative(dc, resultURI);
431 /    DataNarrativeHTMLSerializer.dataNarrativeToHTML(d, "ADDRESS-FILTEREDDOCUMENT11475981333362.html");
432
433    //TRENDING WORDS VISUALIZATION
434    workflowExecutionURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionAccount/ACCOUNT-TRENDINGWORDSVIS-9E34FF2A-1998-4BC8-B6D2-BBFB7212A562";
435    workflowTemplateURI="http://www.opmw.org/export/4.0/resource/WorkflowTemplate/TRENDINGWORDSVISUALIZATION-D751713988987E9331980363E24189CE";
436    resultURI="http://www.opmw.org/export/4.0/resource/WorkflowExecutionArtifact/IMAGE1475981286849";
437 /    DataNarrativeContext dc = new DataNarrativeContext(workflowExecutionURI, workflowTemplateURI, doiFile, motifAnnotations, ontoSoftFile);
438 /    DataNarrative d = new DataNarrative(dc, resultURI);
439 /    DataNarrativeHTMLSerializer.dataNarrativeToHTML(d, "TRENDING-IMAGE1475981286849.html");
440
441    //TEST RAVALI DOMAIN
442    workflowExecutionURI="http://www.opmw.org/export/omics/resource/WorkflowExecutionAccount/ACCOUNT-PEPTIDE_SEARCH-A-7FA05399-1913-4E1A-919E-4490E1163AEA";
443    workflowTemplateURI="http://www.opmw.org/export/omics/resource/WorkflowTemplate/PEPTIDE_SEARCH-D751713988987E9331980363E24189CE";
444    resultURI="http://www.opmw.org/export/omics/resource/WorkflowExecutionArtifact/MERGEDPEPXML1479478029209";
445
446    //TEST VARIANT CALLING RESEQUENCING
447    workflowExecutionURI="http://www.opmw.org/export/omics/page/resource/WorkflowExecutionAccount/ACCOUNT-VARIANTCALLING_R-472B670A-2813-4B6B-A2A7-BA72D0CDF
448    workflowTemplateURI="http://www.opmw.org/export/omics/page/resource/WorkflowTemplate/VARIANTCALLING_RESEQUENCING-D751713988987E9331980363E24189CE";
449    resultURI="http://www.opmw.org/export/omics/page/resource/WorkflowExecutionArtifact/FILTDATAFILE1496101618223";
450    DataNarrativeContext dc = new DataNarrativeContext(workflowExecutionURI, workflowTemplateURI, doiFile, motifAnnotations, ontoSoftFile);
451    DataNarrative d = new DataNarrative(dc, resultURI);
452    DataNarrativeHTMLSerializer.dataNarrativeToHTML(d, "TEST-MERGEDPEPXML1479478029209.html");
453    }
454
```

<terminated> DataNarrativeHTMLSerializer [Java Application] /Library/Java/JavaVirtualMachines/jdk-9.0.4.jdk/Contents/Home/bin/java (29-Jan-2018, 12:27:45 PM)

When I tried to run this, it is giving me the following error:

```
Creating Knowledge base...
log4j:W <terminated> DataNarrativeHTMLSerializer   gger (org.apache.jena.riot.system.stream.JenaIOEnvironment).
log4j:W [Java Application] /Library/Java/                         properly.
log4j:W JavaVirtualMachines/jdk-9.0.4.jdk/Contents/  j/1.2/faq.html#noconfig for more info.
Loading  Home/bin/java (30-Jan-2018, 10:59:46 AM)
Loading template data...
Loading motifs descriptions...
Loading DOIs descriptions...
Load complete.
select distinct ?v from <urn:x-arq:UnionGraph> where{<http://www.opmw.org/export/omics/page/resource/WorkflowExecutionArtifact/FILTDATAFILE1496101618223> <http://www.w3.org/2000/01/rdf-sc
com.hp.hpl.jena.sparql.engine.ResultSetCheckCondition@b10a26d
 here checking for resultnull
select distinct ?v from <urn:x-arq:UnionGraph> where{<http://www.opmw.org/export/omics/page/resource/WorkflowExecutionArtifact/FILTDATAFILE1496101618223> <http://www.w3.org/2000/01/rdf-sc
com.hp.hpl.jena.sparql.engine.ResultSetCheckCondition@58e85c6f
Exception in thread "main" java.lang.NullPointerException
        at edu.isi.wings.datanarratives.DataNarrative.<init>(DataNarrative.java:51)
        at edu.isi.wings.datanarratives.DataNarrativeHTMLSerializer.main(DataNarrativeHTMLSerializer.java:451)
```

I am trying to debug and understand the SPARQL.

```
    private final KnowledgeBase kb;
    private final DataNarrativeContext context;
    private Resource result; //result to track, i.e., the subject of the narrative.

    public DataNarrative(DataNarrativeContext context, String resultURI) {
        this.context = context;
        //normally it would be created from the context; this is a test.
        //kb = new KnowledgeBase("C:\\Users\\dgarijo\\Dropbox (OEG-UPM)\\NetBeansProjects\\DatNarratives\\kb.ttl");
        kb= new KnowledgeBase(context);
        //end test
        this.result = new Resource(resultURI, resultURI);
        //System.out.println("result"+this.result);
        System.out.println(" here checking for result" +this.getValueForProperty(result, Constants.RDFS_LABEL));
        result.setName(this.getValueForProperty(result, Constants.RDFS_LABEL).replace("Workflow execution artifact: ", ""));
        result.setLocation(this.getValueForProperty(result, Constants.OPMW_LOCATION));
    }

    public Resource getResult() {
        return result;
    }

    public DataNarrativeContext getContext() {
        return context;
    }

    public KnowledgeBase getKb() {
        return kb;
```

I also met Shreyas, to work on the Feedback System.