**Summary Report**

Goal: The objective of this lab is to learn SPARQL and query RDF using SPARQL.

Synopsis:

Introduction to SPARQL:

SPARQL is a [query language](http://www.w3.org/TR/sparql11-query/) and a [protocol](http://www.w3.org/TR/rdf-sparql-protocol/) for accessing RDF designed by the [W3C RDF Data Access Working Group](http://www.w3.org/2001/sw/DataAccess/). RDF is a directed, labeled graph data format for representing information in the Web. This specification defines the syntax and semantics of the SPARQL query language for RDF. SPARQL can be used to express queries across diverse data sources, whether the data is stored natively as RDF or viewed as RDF via middleware. SPARQL contains capabilities for querying required and optional graph patterns along with their conjunctions and disjunctions. SPARQL also supports extensible value testing and constraining queries by source RDF graph. The results of SPARQL queries can be results sets or RDF graphs.

In the first part of the assignment, I have used jena, Gruff and sparql. Initially I have loaded “VC-DB-3.rdf” in Gruff and I have executed the queries given against VC-DB-3.rdf using the SPARQL in Gruff to visualize the query results.

In the second part of the assignment, I have used “Monterey.rdf”. I have first loaded “Monterey.rdf” in jena and built a query to get all the information related to monterey incident 1621 and the I wrote a Java program using Jena API to load the rdf and calculated how long the insertion/loading step took. The final output that I got is “Monterey.rdf” is loaded in 1.7 seconds and total 39 triples I found.

Conclusion:

In this lab assignment I learnt about SPARQL to query RDF. I have executed queries using gruff and in jena as well.