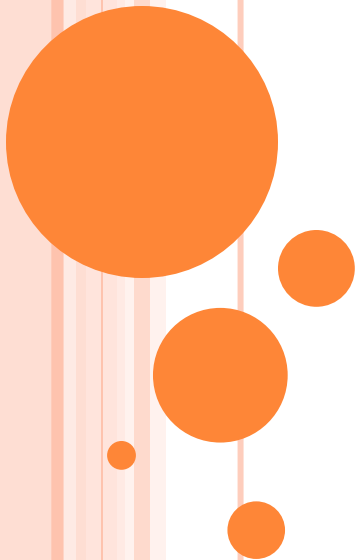


# ALLEGROGRAPH RDF STORE

Database and the Web (CSC8711)

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# OUTLINE

- Introduction
- How does it work?
- Programming API
- Examples
- Gruff
- Current projects
- Conclusion



# INTRODUCTION

- AllegroGraph is a graph database to develop semantic web applications.
- Developed by Franz Inc.
- Stores data in triple format.
- Disk based RDF database.
- It has Java, Python, Lisp, Prolog interfaces.
- Supports SPARQL, Prolog, TwinQL through APIs.



# HOW DOES IT WORK?

- AllegroGraph runs as a service.
- It can work with large variety of programming interfaces like Java, Lisp.
- Although it's called a "triple", each triple has five fields.
  - Subject
  - Predicate
  - Object
  - Graph
  - ID – *stands for triple identifier*



## CONTINUE ...

- Generate 12 byte unique identifier for each string in the triple store.
- It indexes the triple for better query performance.
- Six index flavors are enabled by default.
- This index set can be customized by adding or deleting indices.



# PROGRAMMING API (JAVA)

- Create Triple Store
- Load data set / add triple
- Run SPARQL query
- Delete triple
- Delete triple store



# GRUFF (ALLEGROGRAPH BROWSER)

- Interactive triple-store browser, query manager, editor for AllegroGraph.
- Create triple store, generate graph, perform query.
- Three Views
  - Graph
  - Table
- Supports visual query.



# CURRENT PROJECTS

- Commercial projects
- Defense projects
- Open source projects (DBPedia Deutschland)
- TwitLogic





# CONCLUSION

- Scalability and retrieval speed makes AllegroGraph unique.
- It has built in RDFS++ reasoner.
- Support many languages and interfaces.
- Future version will support C# and Ruby.
- Compliant with RDF , RDFS, OWL, SPARQL, Prolog, OWL-lite reasoning
- Gruff makes data retrieval more pleasant through visual graph.

