## Design and Development of Job Ontology using Semantic Web for Job and Skill Search

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*Abstract*: Semantic search has become the next level searching concept for promoting web searching. Semantic web based search promotes semantic-based (meaning) search and gives exact match. In the proposed paper we have developed a Job Search Ontology for Effective Job Searching in the domain of IT in Protégé 5.1.1. The first part of paper shows the job search ontology consisting of various classes, the Dataset and axioms set on it and SQL Queries executed on it. Multiple SPARQL queries are executed on the created Ontology to get the desired output. Second part of paper shows the use of Jena Framework, for creating a Java interface to accept the input data from the Job Search OWL file and same queries are executed to get the required output to provide match between Job Seeker (Applicant) and Job Provider (Company) using Semantic Web. Future work can be corresponding to executing the SPARQL query in a de-centralized database, where multiple ontologies belonging to different URL are combined, to improve the job search results.

IndexTerms - Web, Ontology, Job Search, Jena Framework, SPARQL, OWL

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