ONTOLOGY DEVELOPMENT FOR SOFTWARE TRACKING INFORMATION SYSTEM

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Abstract

Ontology Development For Software tracking Information System makes use of the semantic web and it used for check and track software performance which help for user to retrieve basic information like maximum retail price, information about software and other information like software latest version, Cost price, tracking old issues in software, searching for software price history in previous software.

Keyword: RDF, SPARQL, OWL, Web Semantic.

1. INTRODUCTION

ontology development for software tracking information system track and check software performance and its availability. In Ontology development for software tracking Information System we develop software information ontology and apply this ontology for information retrieval mechanism as a knowledge base for retrieving and managing acquaintance in a field of Software.[1,15].with the help of this ontology we also check MRP of software.

2. PROPOSED MODEL

The Proposed model based on Software information ontology. This ontology build in ontology development tool protege4.3.0 software. This ontology provides for the basic framework of the Software ontology based model. In this information system we used DotNetRDF which is a RDF API used in Microsoft Visual Studio for implementing Semantic Web concepts. A SPARQL and SQL two query language used for this framework SPARQL provide basic semantic concept which is connected DOTNETRDF API and SQL provide database connectivity. [14,15]

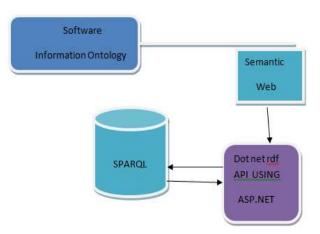
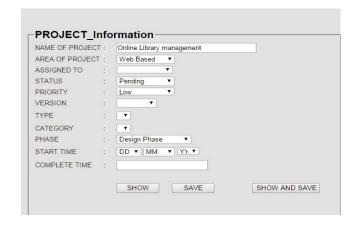


Fig.1. Software tracking information system model

2.1 Ontology Design

Ontology basically used for sharing information .ontology consist 4 thing<C, I, R, A>[4, 5].

- Class(C)
- Instances (I)
- Relationship(R)
- Axioms(A)



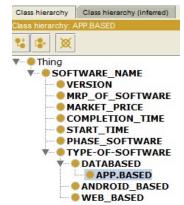


Fig.2, 3 project information & Class hierarchy software tracking ontology

3. SQL LOGIN CONTROL WEB SECURITY USING C# CODE

```
using System;
using System.Collections.Generic;
using System.Ling:
using System. Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using BUG.Database;
using System.Data.SqlClient;
using System.Data;
public partial class homeloginpage: System.Web.UI.Page
  SqlDataAdapter da;
  DataSet ds = new DataSet();
  int flag = 0;
  protected void Page Load(object sender, EventArgs e)
        = new SqlDataAdapter("select
    da
account", "Data Source=DELL-PC\\SQLEXPRESS; Initial
Catalog=softwaresystem;Integrated Security=True");
 da.Fill(ds);
  protected void Button1 Click(object sender, EventArgs e)
Response.Redirect("Default.aspx");
       if(flag == 0)
         Label1.Text = "user name and password not
match";
```

3.1 Sparql

It is also query language.it is used to query to RDF file.It is quite similar to SQL which is used to query RDBMS

4. RDF FILE GENERATION CODE USING C#

```
using System;
using System.Collections.Generic;
using System.Ling;
using System. Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using VDS.RDF;
using VDS.RDF. Writing;
using System.Xml;
using VDS.RDF.Parsing;
public partial class _Default : System.Web.UI.Page
  static string GUID = "";
protected void Page Load(object sender, EventArgs e){ }
  protected void Button1 Click(object sender, EventArgs e)
  { IGraph g1 = new Graph();
    TripleStore store = new TripleStore();
IUriNode
                          hassoftwareId
g1.CreateUriNode(UriFactory.Create("http://www.semantic
web.org/dell/ontologies/2015/0/untitled ontology-
6#hasSoftwareId"));
```

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5. WORKING OF SOFTWARE

This interface look like a search engine in which comma separated values are entered also that involves semantic web concept you can find Software information on similar matters by searching through. Like if somebody search "android mobile "also gets consisting of results like "ABC MOBILE" etc.



Fig 4. Software search page

6. CONCLUSION AND FUTURE SCOPE

The future scope of our work is to apply the potential of Knowledge Representation[12,13,14] along with reasoning in the Web context. The use of semantic web in software tracking Information System helps the machine to take the appropriate decision regarding software and provide appropriate result.

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