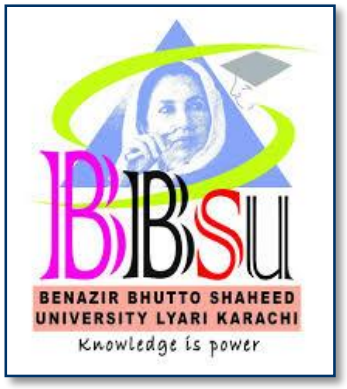

BENAZIR BHUTTO SHAHEED UNIVERSITY

LYARI, KARACHI

WEB SEMANTICS CLASS SUMMARY

Submitted to:

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Semester: 7th – B

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Ontology:

A data model which aims to disclose knowledge in the form of different concepts lying in a particular domain. It also describes the relation between these concepts. The main idea behind Ontology is to manage data efficiently through making classes and defining relationships.

Example of Ontology:

Suppose there is a book. It has author and name. The relations of these two entities with the book are their ontology.

Semantic Web Tower:

There are totally 7 layers in the Semantic Web Tower

1) First layer deals with character recognition and URI referencing that aims to support hyperlinks.

2) In the second layer, there is the use of XML queries that describe the relation through meta-tags.

3) There is RDF (Resource Description Framework) in the third layer which acts as a version of ontology.

4) Fourth layer consists of ontology vocabularies that help define relations.

5) The fifth layer is inferential layer provides logic about the ontology.

6) Sixth layer the ontology is proved

7) At the end, the ontology is authenticated and verified.

Ontology Languages:

The representation of Ontologies are actually variety of languages and mediums in which it is explicitly described.

1) Graphical Notations

2) Logic-based

3) Probabilistic

Graphical Notations:

We can represent ontologies through graphical notations through different methods that are listed below:

1) Semantic Networks

2) Topic Maps

3) UML (Unified Modeling Languages)

4) RDF (Resource Description Framework)

Object Oriented Languages:

They consist the following entities:

Object:

Object is anything that exist in real. Objects are instances of classes. For example, audi, bbsul, etc.

Classes:

A class describes the variables, properties, procedures, and events of an object. For example, Car is a class having properties that the object carries.

Relations/Properties:

Pathways that help understand the relationship between an object and its class.

x-----x-----x