

Lesson 5

Object Data Store

Object

- Object is an instance of a class in Java, C++, and other object-oriented languages
- Object can be an instance of another object (for example, in JavaScript)

Class

- Class refers to a template of program codes that is extendable
- Class creates instances, called objects
- A class consists of initial values for member fields, called state (of variables), and implementations of member functions and methods called behavior

Class

- An implementation means program codes along with values of arguments in the functions and methods (Java Class uses methods, C++ functions.)
- An abstract class consists of at least one abstract member or method
- Abstract member needs implementation in extended class.

Object Store

- Refers to a repository which stores the:
 1. Objects (such as files, images, documents, folders, and business reports)

Object Store

2. System metadata which provides information such as filename, creation_date, last_modified
3. Custom metadata which provides information, such as subject, category, sharing permissions.

Metadata

- Metadata enables the gathering of metrics of objects, searches, finds the contents and specifies the objects in an object data-store tree
- Metadata finds the relationships among the objects, maps the object relations and trends

Object Store

- Object Store metadata interfaces with the Big Data.

Metadata

- The metadata defines classes and properties of the objects
- Each Object Store may consist of a database
- Document content can be stored in either the object store database storage area or in a file storage area.

Multiple Object Stores

- A single file domain may contain multiple Object Stores

Eleven Functions Supporting APIs

- Such as (i) scalability, (ii) indexing, (iii) large collections, (iv) querying language, processing and optimization (s),

Object Store

- Object Store may support versioning for collaboration
- Object Store can be created using IBM ‘Content Platform Engine’
Creation needs installing and configuring the engine (Engine is software which drives forward.)

Object Store Supports

- Amazon S3 and Microsoft Azure BLOB support the Object Store

Amazon S3 (Simple Storage Service)

- Refers to Amazon web service on the cloud named S3
- The S3 provides the Object Store
- S3 assigns an ID number for each stored object. The service has two storage classes: Standard and infrequent access.

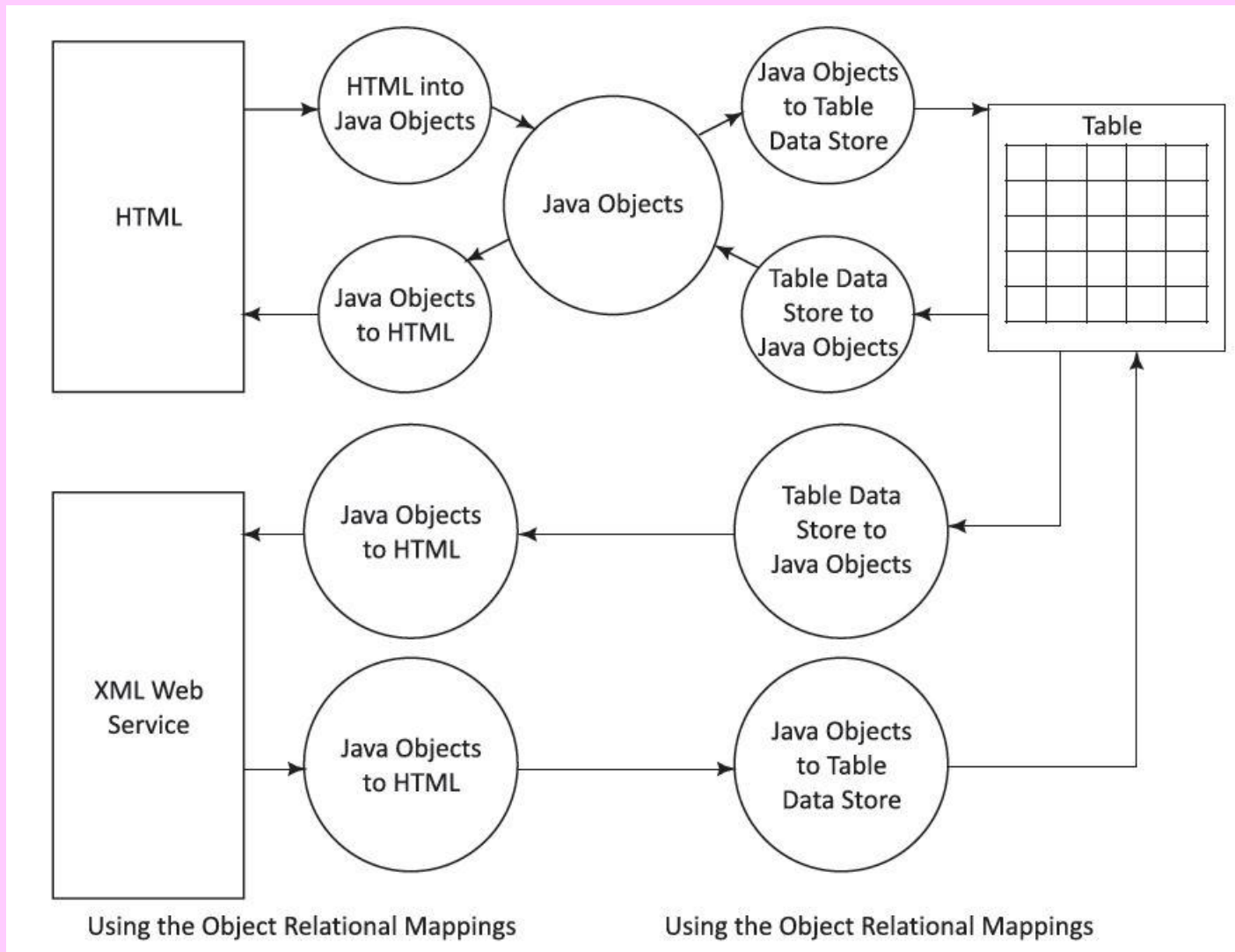
Amazon S3 (Simple Storage Service) Interfaces

- REST, SOAP and Bit Torrent.

Object Relational Mapping

- Example: HTML object and XML based web service relate with tabular data stores

Figure 3.7 HTML document and XML web services



Summary

We learnt :

- Object Data Store (such as files, images, documents, folders, and business reports)
- Stem metadata
- Custom Metadata
- Amazon S3

End of Lesson 5 on Object Data Store