1) Create a DTD and XML Document For music collection which need to have entries for CD collection. At least one CD collection required.

ANSWER 1: Here’s an example of a DTD and XML document for music collection which need to have entries for CD collection. At least one CD collection is required:

<!DOCTYPE music [

<!ELEMENT music (cd+)>

<!ELEMENT cd (title, artist, year)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT artist (#PCDATA)>

<!ELEMENT year (#PCDATA)>

]>

<music>

<cd>

<title>Album 1</title>

<artist>Artist 1</artist>

<year>2022</year>

</cd>

<cd>

<title>Album 2</title>

<artist>Artist 2</artist>

<year>2021</year>

</cd>

</music>

In this example, the DTD defines the structure of the XML document. The music element is the root element and contains one or more cd elements. Each cd element contains a title, an artist, and a year.

2.Create a DTD and XML Document For list recipe author recipe name meal ingredients It Contains collection of Different item , but at least one item. Directions.

ANSWER 2: To create a DTD and XML document for a list of recipes that contains the author, recipe name, meal, ingredients (which contains a collection of different items), and directions, you can use the following DTD code:

<!ELEMENT list (recipe+)>

<!ELEMENT recipe (author, recipe\_name, meal, ingredients, directions)>

<!ELEMENT author (#PCDATA)>

<!ELEMENT recipe\_name (#PCDATA)>

<!ELEMENT meal (#PCDATA)>

<!ELEMENT ingredients (item+)>

<!ELEMENT item (#PCDATA)>

<!ELEMENT directions (#PCDATA)>

This DTD code defines the structure and legal elements of an XML document. You can then use this DTD code to create an XML document that follows this structure.

Here is an example of an XML document that follows this structure:

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE list SYSTEM "list.dtd">

<list>

<recipe>

<author>John Doe</author>

<recipe\_name>Spaghetti Bolognese</recipe\_name>

<meal>Dinner</meal>

<ingredients>

<item>1 pound ground beef</item>

<item>1 onion, chopped</item>

<item>2 cloves garlic, minced</item>

<item>1 can (28 ounces) crushed tomatoes</item>

<item>1 can (6 ounces) tomato paste</item>

<item>1 teaspoon dried basil</item>

<item>1 teaspoon dried oregano</item>

<item>Salt and pepper to taste</item>

</ingredients>

<directions>Cook spaghetti according to package directions. Meanwhile, in a large skillet, cook beef and onion over medium heat until meat is no longer pink; drain. Add garlic; cook 1 minute longer. Stir in the tomatoes, tomato paste, basil and oregano. Bring to a boil. Reduce heat; simmer, uncovered, for 30 minutes or until sauce reaches desired consistency. Serve with spaghetti.</directions>

</recipe>

</list>

3.Create a DTD and XML Document For a page which must have title and content and optional comment.

ANSWER 3: Here is an example of a DTD and XML document for a page which must have title and content and optional comment:

<!DOCTYPE page [

<!ELEMENT page (title,content,comment?)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT content (#PCDATA)>

<!ELEMENT comment (#PCDATA)>

]>

<page>

<title>Page Title</title>

<content>Page Content</content>

<comment>Optional Comment</comment>

</page>

Here, the DTD defines the structure of the XML document. The <!DOCTYPE> declaration specifies that the root element of the document is page. The <!ELEMENT> declarations define the elements that can appear in the document. The ? after comment indicates that it is optional.

4.Discuss what is XML.What are the various syntax rule involved in xml declaration ? Create the xml document which describe the book information's.

ANSWER 4: XML stands for eXtensible Markup Language. It is a markup language that is used to store and transport data. XML is designed to be self-descriptive, meaning that it contains information about the data it contains.

Here are some of the syntax rules involved in an XML declaration:

* The XML declaration must be the first line of the document.
* The XML declaration starts with <?xml and ends with ?>.
* The version of the XML specification being used is specified using the version attribute.
* The encoding of the document is specified using the encoding attribute.
* The standalone status of the document is specified using the standalone attribute.

Here’s an example of an XML document that describes book information:

<?xml version="1.0" encoding="UTF-8"?>

<book>

<title>The Catcher in the Rye</title>

<author>J.D. Salinger</author>

<publisher>Little, Brown and Company</publisher>

<publication\_date>1951</publication\_date>

<isbn>9780316769488</isbn>

</book>

In this example, we have an XML document that describes a book. The <?xml> declaration specifies that this is an XML document with version 1.0 and encoding UTF-8. The root element of the document is book, which contains child elements for the title, author, publisher, publication date, and ISBN.