

1ва зад.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- С вътрешно DTD: <=> DTD и XML документа се намират в един xml файл -->
<!DOCTYPE shiporder[
<!ELEMENT shiporder (orderperson,shipto,item+)>
<!ATTLIST shiporder orderid CDATA #REQUIRED>
<!ELEMENT orderperson (#PCDATA)>
<!ELEMENT shipto (name,address,city,country)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT address (#PCDATA)>
<!ELEMENT city (#PCDATA)>
<!ELEMENT country (#PCDATA)>
<!ELEMENT item (title,note?,quantity,price)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT note (#PCDATA)>
<!ELEMENT quantity (#PCDATA)>
<!ELEMENT price (#PCDATA)>
]>
<shiporder orderId="889923">
  <orderperson>John Smith</orderperson>
  <shipto>
    <name>Ola Nordmann</name>
    <address>Langgt 23</address>
    <city>4000 Stavanger </city>
    <country> Norway </country>
  </shipto>
  <item>
    <title>Empire Burlesque</title>
    <note>Special Edition</note>
    <quantity>1</quantity>
    <price>10.90</price>
  </item>
  <item>
    <title>Hide your heart</title>
    <quantity>1</quantity>
    <price>9.90</price>
  </item>
</shiporder>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- С външно DTD: <=> DTD е дефинирано в отделен файл -->
<!DOCTYPE shiporder SYSTEM "task1_b_dtd.xml">
<shiporder orderId="889923">
  <orderperson>John Smith</orderperson>
```

```

    <shipto>
      <name>Ola Nordmann</name>
      <address>Langgt 23</address>
      <city>4000 Stavanger </city>
      <country> Norway </country>
    </shipto>
    <item>
      <title>Empire Burlesque</title>
      <note>Special Edition</note>
      <quantity>1</quantity>
      <price>10.90</price>
    </item>
    <item>
      <title>Hide your heart</title>
      <quantity>1</quantity>
      <price>9.90</price>
    </item>
  </shiporder>

```

Във файл с име "task1_b_dtd.xml" :

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE shiporder[
  <!ELEMENT shiporder (orderperson,shipto,item+)>
  <!ATTLIST shiporder orderid CDATA #REQUIRED>
  <!ELEMENT orderperson (#PCDATA)>
  <!ELEMENT shipto (name,address,city,country)>
  <!ELEMENT name (#PCDATA)>
  <!ELEMENT address (#PCDATA)>
  <!ELEMENT city (#PCDATA)>
  <!ELEMENT country (#PCDATA)>
  <!ELEMENT item (title,note?,quantity,price)>
  <!ELEMENT title (#PCDATA)>
  <!ELEMENT note (#PCDATA)>
  <!ELEMENT quantity (#PCDATA)>
  <!ELEMENT price (#PCDATA)>
]>

```

2 зад.

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE games[
  <!ELEMENT games (game)*>
  <!ELEMENT game (home-team,ex-team,scores,yellows,reds)>
  <!ATTLIST game score CDATA #REQUIRED>
  <!ELEMENT home-team (#PCDATA)>
  <!ELEMENT ex-team (#PCDATA)>

```

```

<!ELEMENT scores (score)*>
<!ELEMENT score (player)*>
<!ATTLIST score me CDATA #REQUIRED
               type (penalty|other) #IMPLIED>
<!ELEMENT yellows (player)*>
<!ELEMENT reds (player)*>
<!ELEMENT player (#PCDATA)>
]>
<games>
  <game score="1-1">
    <home-team>Roma</home-team>
    <ex-team>Lazio</ex-team>
    <scores>
      <score me="15">
        <player>Klose</player>
      </score>
      <score me="85" type="penalty">
        <player>Tox</player>
      </score>
    </scores>
    <yellows>
      <player>Tox</player>
      <player>Hernanes</player>
    </yellows>
    <reds>
      <player>Kjaer</player>
    </reds>
  </game>
</games>

```

Коментар по 2ра зад. :

DTD започва с root елемент games. От множественото число следва, че държи множество от game. Затова неговият единствен под-елемент има *. Game има 1 атрибут: score и 5 под-елемента: home-team, ex-team, scores, yellows, reds. Home-team и ex-team са с елементно съдържание от текст – затова са #PCDATA. Scores е елемент, съставен от под-елемента score, повтарящ се n-на брой пъти – затова има *. Score е елемент, съставен от под-елемента player, повтарящ се n-на брой пъти. Score има и 2 атрибута: me и type. Атрибутът type може да бъде или penalty или нещо друго (other). Yellows е елемент, съставен от под-елемента player, повтарящ се n-на брой пъти. Reds е елемент, съставен от под-елемента player, повтарящ се n-на брой пъти. Player е елемент, съставен от текст – затова е #PCDATA.

3та зад.

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Course_Catalog[

```

```

<!ELEMENT Chair (Professor)>
<!ELEMENT Title (#PCDATA)>
<!ELEMENT Course (Title, Description?, Instructors, Prerequisites?)>
<!ATTLIST Course
Number (CS106A | CS106B | CS107 | CS109 | CS124 | CS143 | CS145 | CS221 |
CS228 | CS229 | EE108A | EE108B | LING180) #REQUIRED
Enrollment (1070 | 110 | 130 | 180 | 280 | 320 | 500 | 60 | 620 | 90) #IMPLIED
>
<!ELEMENT Prereq (#PCDATA)>
<!ELEMENT Lecturer (First_Name, Middle_Initial?, Last_Name)>
<!ELEMENT Last_Name (#PCDATA)>
<!ELEMENT Professor (First_Name, Middle_Initial?, Last_Name)>
<!ELEMENT Department (Title, Chair, Course+)>
<!ATTLIST Department Code (CS | EE | LING) #REQUIRED>
<!ELEMENT First_Name (#PCDATA)>
<!ELEMENT Description (#PCDATA)>
<!ELEMENT Instructors ((Lecturer, Professor*) | (Professor+, Lecturer?))>
<!ELEMENT Prerequisites (Prereq+)>
<!ELEMENT Course_Catalog (Department+)>
<!ELEMENT Middle_Initial (#PCDATA)>
]>
<Course_Catalog>
  <Department Code="CS">
    <Title>Some title</Title>
    <Chair>
      <Professor>
        <First_Name>Ivan</First_Name>
        <Middle_Initial>Dimitrov</Middle_Initial>
        <Last_Name>Georgiev</Last_Name>
      </Professor>
    </Chair>
    <Course Number="CS106A" Enrollment="1070">
      <Title>Other title</Title>
      <Description>Some description</Description>
      <Instructors>
        <Lecturer>
          <First_Name>Georgi</First_Name>
          <Middle_Initial>Ivanov</Middle_Initial>
          <Last_Name>Dimitrov</Last_Name>
        </Lecturer>
        <Professor>
          <First_Name>Ivan</First_Name>
          <Middle_Initial>Dimitrov</Middle_Initial>
          <Last_Name>Georgiev</Last_Name>
        </Professor>
      </Instructors>
      <Prerequisites>
        <Prereq>.Some prerequisites</Prereq>
      </Prerequisites>
    </Course>
  </Department>
</Course_Catalog>

```

```
</Course>
</Department>
</Course_Catalog>
```

Коментар по 3та зад. :

Разбиваме граматиката на логически части и намираме връзките между всяка една част, като внимаваме с честотата на срещане на всеки елемент.

4та зад.

От DTD граматиката на дадения адрес създаваме XML документа с публична DTD граматика:

```
<?xml version="1.0" ?>
<!DOCTYPE root PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<root>
  <html>
    <head>
      <title></title>
    </head>
    <body>
    </body>
  </html>
</root>
```

5та зад.

Първо създаваме DTD граматиката и XML документа. После добавяме изискванията:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Channel[
  <!-- 2. Под-елементите на channel имат следния ред на подреждане: item, title,
  link, image, language и description
    3. Под-елементите на channel - item, title, link и description са
  задължителни => слагаме им +, за да окажем, че се срещат един или повече пъти,
    а останалите елементи image и language - не
    4. Елементите item и image могат да се срещат много пъти => понеже item
  се среща задължително (от 3.), му слагаме +, докато image не е
    задължителен => слагаме му * за 0 или повече пъти : -->
  <!ELEMENT Channel (item+, title+, link+, image*, language?, description+)>
  <!-- 1. Елементът channel има атрибут с име version: -->
  <!ATTLIST Channel version CDATA #REQUIRED>
  <!-- 5. Под-елементите на item (т.е. title, link, description) и image (т.е.
  title, link, url) нямат определена последователност
    => изброяваме всичко възможно
```

```

    6. Под-елементът description на item е незадължителен => слагаме му ?, за
    да укажем, че се среща 0 или 1 път : -->
<!ELEMENT item ((title, link, description?) | (title, description?, link) |
(link, title, description?) | (link, description?, title) | (description?,
title, link) | (description?, link, title))>
<!ELEMENT image (title | link | url)+>
<!-- Друг начин: <!ELEMENT image ((title | link | url) | (title | url | link)
| (link | title | url) | (link | url | title) | (url | title | link) | (url |
link | title))> -->
<!ELEMENT title (#PCDATA)>
<!ELEMENT link (#PCDATA)>
<!ELEMENT description (#PCDATA)>
<!ELEMENT url (#PCDATA)>
<!ELEMENT language (#PCDATA)>
]>
<Channel version="1234">
    <item>
        <title>Some title</title>
        <link>"some link"</link>
    </item>
    <title>Some other title</title>
    <link>"some other link"</link>
    <image>
        <title>Third title</title>
        <link>"Third link"</link>
        <url>"some url"</url>
    </image>
    <language>English</language>
    <description>woooooow</description>
</Channel>

```

6та зад.

Първо създаваме DTD граматиката и XML документа (той не е искан в тази задача) . После добавяме изискванията:

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE footballMatches[
<!-- коренът съдържа много мачове: -->
<!ELEMENT footballMatches (match)*>
<!-- всеки мач има по отбори, краен резултат, играчи с гол, време на гол,
играчи с картон : -->
<!ELEMENT match (teams,final,goal+,penalizedPlayers*)>
<!-- 1. Футболните отбори участващи в един мач -->
<!-- всеки мач се играе от 2 отбора: -->
<!ELEMENT teams (home-team,ex-team)>
<!ELEMENT home-team (#PCDATA)>
<!ELEMENT ex-team (#PCDATA)>

```

```

<!-- 2. Крайния резултат за всеки мач -->
<!ELEMENT final (#PCDATA)>
<!-- 3. Играчите отбелязали гол в мача
      4. Времето, в което е отбелязан всеки гол :-->
<!ELEMENT goal (player,time)>
<!ELEMENT player (#PCDATA)>
<!ELEMENT time (#PCDATA)>
<!-- 5. Играчите получили наказателни картони (жълти или червени => атрибути)
-->
<!ELEMENT penalizedPlayers (player*)>
<!-- ATTLIST penalizedPlayers cards (yellow | red) #REQUIRED -->
]>
<footballMatches>
  <match>
    <teams>
      <home-team>home1</home-team>
      <ex-team>ex1</ex-team>
    </teams>
    <final>2-1</final>
    <goal>
      <player>Ivancho</player>
      <time>12:50</time>
    </goal>
    <penalizedPlayers cards="yellow">
      <player>Dragancho</player>
    </penalizedPlayers>
    <penalizedPlayers cards="red">
      <player>Gosho</player>
    </penalizedPlayers>
  </match>
  <match>
    <teams>
      <home-team>Levski</home-team>
      <ex-team>CSK</ex-team>
    </teams>
    <final>1-1</final>
    <goal>
      <player>Tincho</player>
      <time>01:01</time>
    </goal>
    <penalizedPlayers cards="yellow">
      <player>Georgi</player>
    </penalizedPlayers>
  </match>
</footballMatches>

```

XML файла:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Channel SYSTEM "task7_dtd.xml">
<Channel version="1234">
  <item>
    <title>Some title</title>
    <link>&link;</link>
    <description>Some description</description>
  </item>
  <title>Other title</title>
  <link></link>
  <image>
    <title>other title 2</title>
    <link>linkche</link>
    <url>urlche</url>
  </image>
  <language>German</language>
  <description>qbadabaduuuu</description>
</Channel>
```

Външна DTD граматика:

```
<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % Title "title"> <!-- 3. Параметризирано entity със стойност "title"
и да се използва навсякъде където тази дума се среща в DTD файла-->
<!-- <!ELEMENT Channel (item+, %Title+, link+, image*, language?,
description+)> -->
<!ELEMENT Channel (item+, %Title;+, link+, image*, language?, description+)>
<!ATTLIST Channel version CDATA #REQUIRED>
<!ELEMENT item ((%Title;, link, description?) | (%Title;, description?, link)
| (link, %Title;, description?) | (link, description?, %Title;) |
(description?, %Title;, link) | (description?, link, %Title;))>
<!-- Декларация на entity, използващо долните 2 нотации : -->
<!ENTITY GIF_SYSTEM SYSTEM "www.uni-sofia.bg/logo.gif" NDATA GIF>
<!ENTITY gif_public PUBLIC "www.uni-sofia.bg/logo.gif"
"www.ox.ac.uk/display_images/logo.gif">
<!-- 1. вътрешна (System) на DTD нотация за MIME типа image/gif : -->
<!NOTATION GIF SYSTEM "image/gif">
<!-- 1. една външна декларация (Public) на DTD нотация за MIME типа image/gif
: -->
<!NOTATION gif PUBLIC "image/gif">
<!ENTITY link "www.uni-sofia.bg"> <!-- 2. Общо entity, задаващо стойността на
елемента link на image -->
<!ELEMENT image (title, link, url)>
<!ELEMENT %Title; (#PCDATA)>
<!ELEMENT link (#PCDATA)>
<!ELEMENT description (#PCDATA)>
<!ELEMENT url (#PCDATA)>
```



```
<!ELEMENT language (#PCDATA)>
<!--4. Вложено entity в entity -->
<!ENTITY % titleInTitle "EntityInEntity %Title;">
```

8ма зад.

Първо създаваме DTD граматиката за документа, после добавяме изискванията, като:

Там, където в документа задължително има стойност даден атрибут, в DTD граматиката го пишем #REQUIRED, а където се изпуска атрибута - #IMPLIED. За #FIXED задаваме единствена позволена стойност на year на Course_Catalog:

```
<?xml version="1.0" ?>
<!DOCTYPE Course_Catalog[
<!ELEMENT Course_Catalog (Department+)>
<!ATTLIST Course_Catalog Year CDATA #FIXED "2017-2018"> <!-- 4.-->
<!ELEMENT Department (Title, Course+, (Professor | Lecturer)+)>
<!ATTLIST Department Code ID #REQUIRED <!-- 1. 2. -->
                        Chair IDREF #REQUIRED> <!-- 1. IDREF към ID на
преподавателите; 2. -->

<!ELEMENT Title (#PCDATA)>
<!ELEMENT Course (Title, Description?)>
<!ATTLIST Course Number ID #REQUIRED <!-- 1. 2.-->
                        Prerequisites IDREFS #IMPLIED <!-- 1. IDREFS към ID на
курсовете; 3. -->
                        Instructors IDREFS #REQUIRED <!-- 1. IDREFS към ID на
преподавателите; 2. -->
                        Enrollment CDATA #IMPLIED> <!-- 3.-->
<!ELEMENT Description (#PCDATA | Courseref)*>
<!ELEMENT Courseref EMPTY>
<!ATTLIST Courseref Number IDREF #REQUIRED> <!-- 1. IDREF към ID на курсовете
-->
<!ELEMENT Professor (First_Name, Middle_Initial?, Last_Name)>
<!ATTLIST Professor InstrID ID #REQUIRED> <!-- 1. 2.-->
<!ELEMENT Lecturer (First_Name, Middle_Initial?, Last_Name)>
<!ATTLIST Lecturer InstrID ID #REQUIRED> <!-- 1. 2.-->
<!ELEMENT First_Name (#PCDATA)>
<!ELEMENT Middle_Initial (#PCDATA)>
<!ELEMENT Last_Name (#PCDATA)>
]>
<Course_Catalog Year="2017-2018">
  <Department Code="CS" Chair="JW">
    <Title>Computer Science</Title>
    <Course Number="CS106A" Instructors="JC ER MS" Enrollment="1070">
      <Title>Programming Methodology</Title>
      <Description>Introduction to the engineering of computer
applications emphasizing modern software engineering principles.</Description>
```

```

    </Course>
    <Course Number="CS106B" Prerequisites="CS106A" Instructors="JC ER"
Enrollment="620">
        <Title>Programming Abstractions</Title>
        <Description>Abstraction and its relation to
programming.</Description>
    </Course>
    <Course Number="CS107" Prerequisites="CS106B" Instructors="JZ"
Enrollment="500">
        <Title>Computer Organization and Systems</Title>
        <Description>Introduction to the fundamental concepts of computer
systems.</Description>
    </Course>
    <Course Number="CS109" Prerequisites="CS106B" Instructors="MS"
Enrollment="280">
        <Title>Introduction to Probability for Computer Scientists</Title>
    </Course>
    <Course Number="CS124" Prerequisites="CS107 CS109" Instructors="DJ"
Enrollment="60">
        <Title>From Languages to Information</Title>
        <Description>Natural language processing. Cross-listed as
<Course Number="LING180"/>.</Description>
    </Course>
    <Course Number="CS143" Prerequisites="CS107" Instructors="AA"
Enrollment="90">
        <Title>Compilers</Title>
        <Description>Principles and practices for design and implementation
of compilers and interpreters.</Description>
    </Course>
    <Course Number="CS145" Prerequisites="CS107" Instructors="JW"
Enrollment="130">
        <Title>Introduction to Databases</Title>
        <Description>Database design and use of database management systems
for applications.</Description>
    </Course>
    <Course Number="CS221" Prerequisites="CS107" Instructors="AN ST"
Enrollment="180">
        <Title>Artificial Intelligence: Principles and Techniques</Title>
    </Course>
    <Course Number="CS228" Instructors="DK" Enrollment="110">
        <Title>Structured Probabilistic Models: Principles and
Techniques</Title>
        <Description>Using probabilistic modeling languages to represent
complex domains.</Description>
    </Course>
    <Course Number="CS229" Instructors="AN" Enrollment="320">
        <Title>Machine Learning</Title>
        <Description>A broad introduction to machine learning and
statistical pattern recognition.</Description>

```

```

</Course>
<Professor InstrID="AA">
  <First_Name>Alex</First_Name>
  <Middle_Initial>S.</Middle_Initial>
  <Last_Name>Aiken</Last_Name>
</Professor>
<Lecturer InstrID="JC">
  <First_Name>Jerry</First_Name>
  <Middle_Initial>R.</Middle_Initial>
  <Last_Name>Cain</Last_Name>
</Lecturer>
<Professor InstrID="DK">
  <First_Name>Daphne</First_Name>
  <Last_Name>Koller</Last_Name>
</Professor>
<Professor InstrID="AN">
  <First_Name>Andrew</First_Name>
  <Last_Name>Ng</Last_Name>
</Professor>
<Professor InstrID="ER">
  <First_Name>Eric</First_Name>
  <Last_Name>Roberts</Last_Name>
</Professor>
<Professor InstrID="MS">
  <First_Name>Mehran</First_Name>
  <Last_Name>Sahami</Last_Name>
</Professor>
<Professor InstrID="ST">
  <First_Name>Sebastian</First_Name>
  <Last_Name>Thrun</Last_Name>
</Professor>
<Professor InstrID="JW">
  <First_Name>Jennifer</First_Name>
  <Last_Name>Widom</Last_Name>
</Professor>
<Lecturer InstrID="JZ">
  <First_Name>Julie</First_Name>
  <Last_Name>Zelenski</Last_Name>
</Lecturer>
</Department>
<Department Code="EE" Chair="MH">
  <Title>Electrical Engineering</Title>
  <Course Number="EE108A" Instructors="SM">
    <Title>Digital Systems I</Title>
    <Description>Digital circuit, logic, and system
design.</Description>
  </Course>
  <Course Number="EE108B" Prerequisites="EE108A CS106B" Instructors="WD
00">

```

```

        <Title>Digital Systems II</Title>
        <Description>The design of processor-based digital
systems.</Description>
    </Course>
    <Professor InstrID="WD">
        <First_Name>William</First_Name>
        <Middle_Initial>J.</Middle_Initial>
        <Last_Name>Dally</Last_Name>
    </Professor>
    <Professor InstrID="MH">
        <First_Name>Mark</First_Name>
        <Middle_Initial>A.</Middle_Initial>
        <Last_Name>Horowitz</Last_Name>
    </Professor>
    <Professor InstrID="SM">
        <First_Name>Subhasish</First_Name>
        <Last_Name>Mitra</Last_Name>
    </Professor>
    <Professor InstrID="OO">
        <First_Name>Oyekunle</First_Name>
        <Last_Name>Olukotun</Last_Name>
    </Professor>
</Department>
<Department Code="LING" Chair="BL">
    <Title>Linguistics</Title>
    <Course Number="LING180" Prerequisites="CS107 CS109" Instructors="DJ"
Enrollment="60">
        <Title>From Languages to Information</Title>
        <Description>Natural language processing. Cross-listed as
<Course Number="CS124"/>.</Description>
    </Course>
    <Professor InstrID="DJ">
        <First_Name>Dan</First_Name>
        <Last_Name>Jurafsky</Last_Name>
    </Professor>
    <Professor InstrID="BL">
        <First_Name>Beth</First_Name>
        <Last_Name>Levin</Last_Name>
    </Professor>
</Department>
</Course_Catalog>

```

9та зад.

- 1. Вариант 1: Елементът channel включва само задължителните под-елементи дефинирани в задача 6 - т.е. item, title, link и description:

DTD граматика:

```

<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % option1 "INCLUDE">
<![ %option1; [
<!ELEMENT Channel (item+, title+, link+, description+)>
]]>
<!ENTITY % option2 "IGNORE">
<![ %option2; [
<!ELEMENT Channel (item+, title+, link+, image*, language?, description+)>
]]>
<!ATTLIST Channel version CDATA #REQUIRED>
<!ELEMENT item ((title, link, description?) | (title, description?, link) |
(link, title, description?) | (link, description?, title) | (description?,
title, link) | (description?, link, title))>
<!ELEMENT image (title | link | url)+>
<!ELEMENT title (#PCDATA)>
<!ELEMENT link (#PCDATA)>
<!ELEMENT description (#PCDATA)>
<!ELEMENT url (#PCDATA)>
<!ELEMENT language (#PCDATA)>

```

XML файл:

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Channel SYSTEM "task9_dtd.xml">
<Channel version="1234">
  <item>
    <title>Some title</title>
    <link>"some link"</link>
  </item>
  <title>Some other title</title>
  <link>"some other link"</link>
  <description>woooooow</description>
</Channel>

```

- 2. Вариант 2: Елементът channel включва всички под-елементи дефинирани в задача 6 - т.е. item, title, link и description, image и language:

DTD граматика:

```

<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % option1 "IGNORE">
<![ %option1; [
<!ELEMENT Channel (item+, title+, link+, description+)>
]]>

```

```

<!ENTITY % option2 "INCLUDE">
<![ %option2; [
<!ELEMENT Channel (item+, title+, link+, image*, language?, description+)>
]]>
<!ATTLIST Channel version CDATA #REQUIRED>
<!ELEMENT item ((title, link, description?) | (title, description?, link) |
(link, title, description?) | (link, description?, title) | (description?,
title, link) | (description?, link, title))>
<!ELEMENT image (title | link | url)+>
<!ELEMENT title (#PCDATA)>
<!ELEMENT link (#PCDATA)>
<!ELEMENT description (#PCDATA)>
<!ELEMENT url (#PCDATA)>
<!ELEMENT language (#PCDATA)>

```

XML файл:

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Channel SYSTEM "task9_dtd.xml">
<Channel version="1234">
  <item>
    <title>Some title</title>
    <link>"some link"</link>
  </item>
  <title>Some other title</title>
  <link>"some other link"</link>
  <image>
    <title>Third title</title>
    <link>"Third link"</link>
    <url>"some url"</url>
  </image>
  <language>English</language>
  <description>woooooow</description>
</Channel>

```