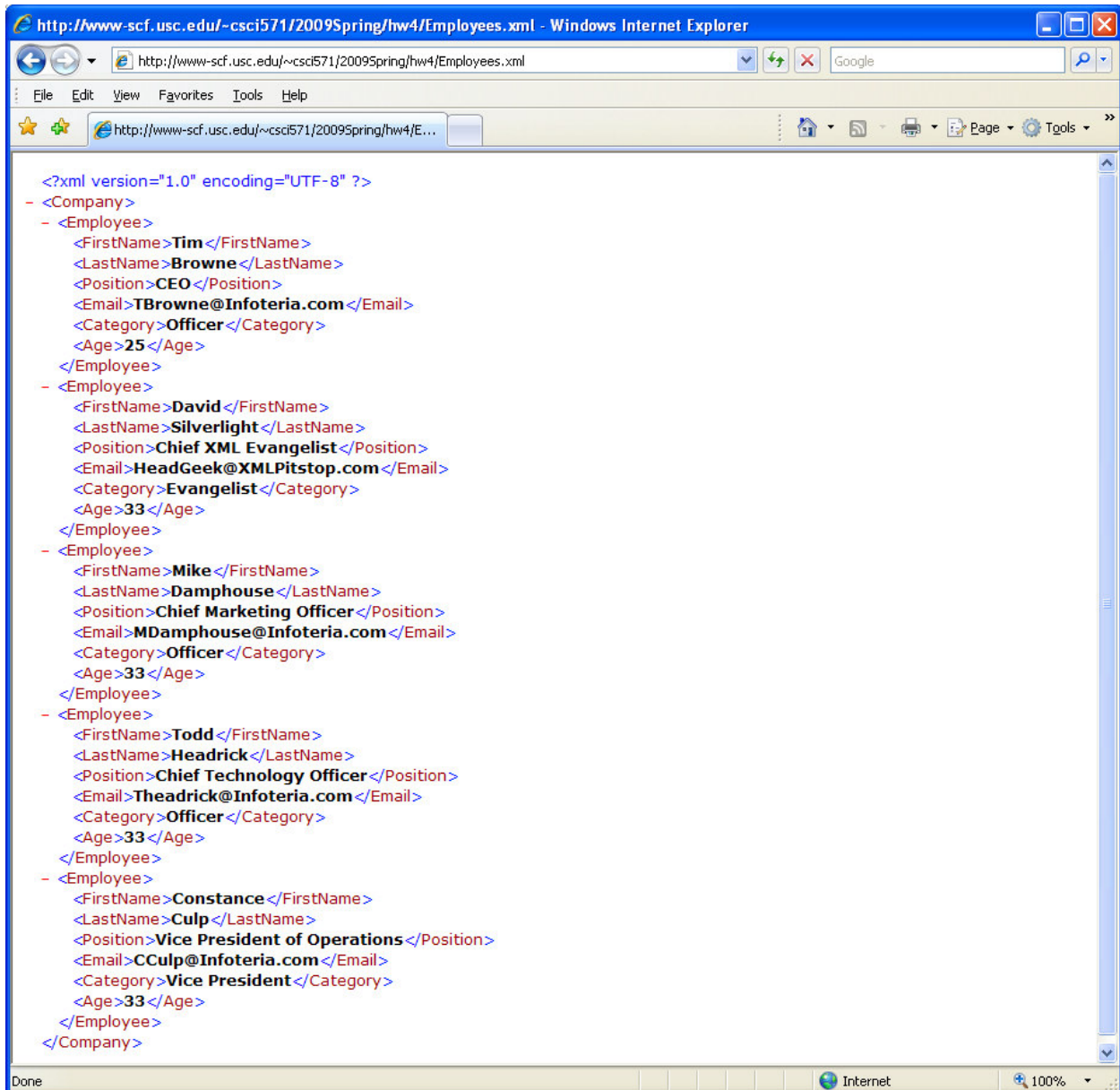


Homework #4: Using XSLT to Transform XML Files

In this exercise you are to create 4 separate stylesheets, as indicated below. To begin, there is an XML file which can be obtained from

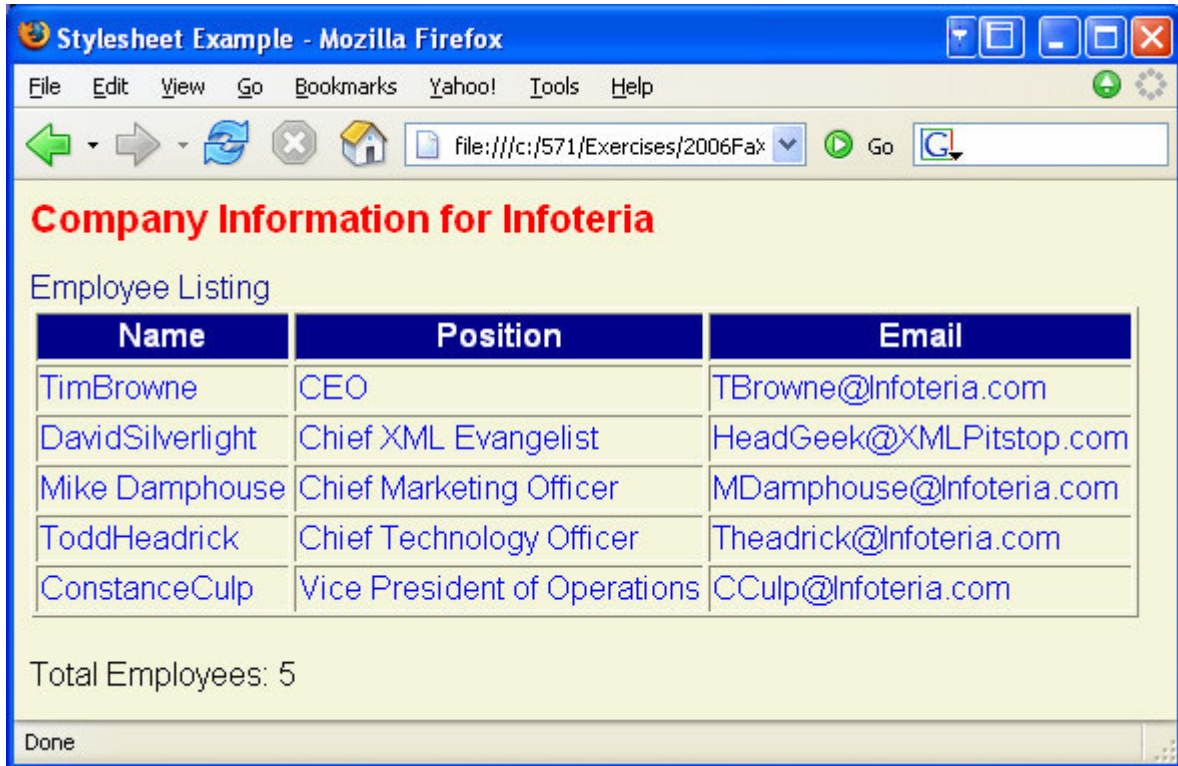
<http://www-scf.usc.edu/~csci571/2009Spring/hw4/Employees.xml>

whose contents follows:



```
<?xml version="1.0" encoding="UTF-8" ?>
- <Company>
  - <Employee>
    <FirstName>Tim</FirstName>
    <LastName>Browne</LastName>
    <Position>CEO</Position>
    <Email>TBrowne@Infoteria.com</Email>
    <Category>Officer</Category>
    <Age>25</Age>
  </Employee>
  - <Employee>
    <FirstName>David</FirstName>
    <LastName>Silverlight</LastName>
    <Position>Chief XML Evangelist</Position>
    <Email>HeadGeek@XMLPitstop.com</Email>
    <Category>Evangelist</Category>
    <Age>33</Age>
  </Employee>
  - <Employee>
    <FirstName>Mike</FirstName>
    <LastName>Damphouse</LastName>
    <Position>Chief Marketing Officer</Position>
    <Email>MDamphouse@Infoteria.com</Email>
    <Category>Officer</Category>
    <Age>33</Age>
  </Employee>
  - <Employee>
    <FirstName>Todd</FirstName>
    <LastName>Headrick</LastName>
    <Position>Chief Technology Officer</Position>
    <Email>Theadrick@Infoteria.com</Email>
    <Category>Officer</Category>
    <Age>33</Age>
  </Employee>
  - <Employee>
    <FirstName>Constance</FirstName>
    <LastName>Culp</LastName>
    <Position>Vice President of Operations</Position>
    <Email>CCulp@Infoteria.com</Email>
    <Category>Vice President</Category>
    <Age>33</Age>
  </Employee>
</Company>
```

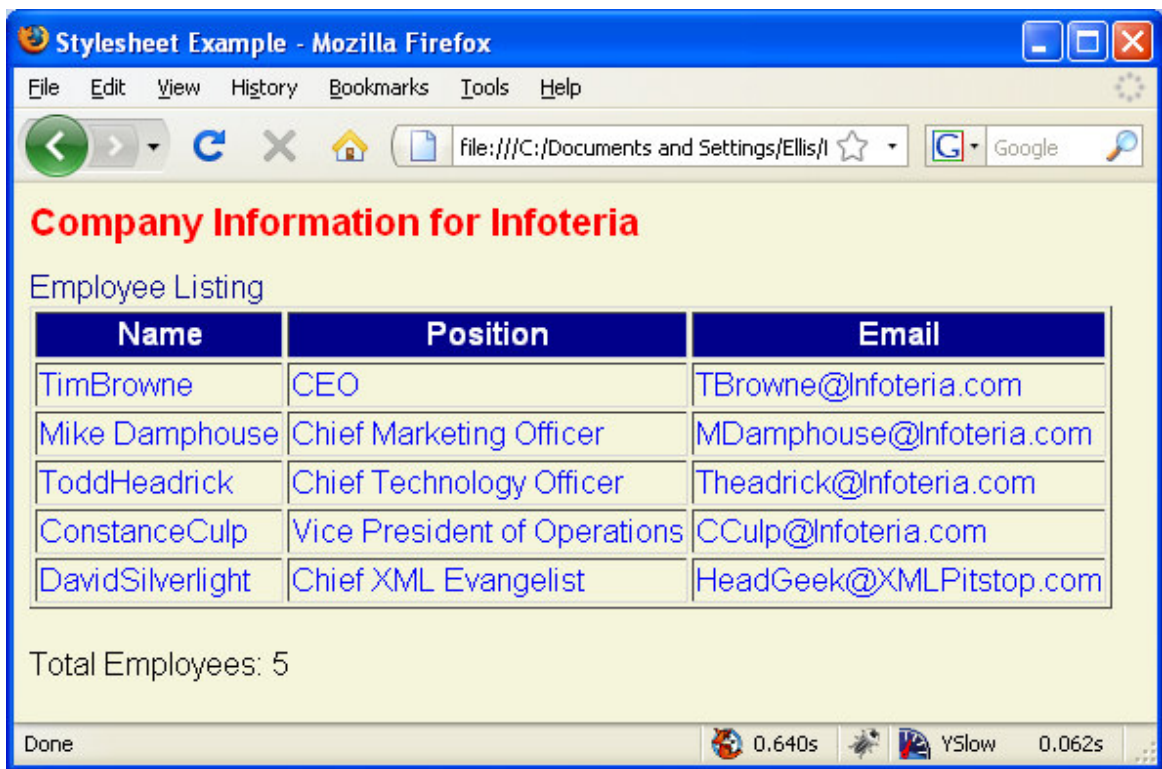
1. Create a stylesheet that produces the following output where the employees are listed in a table in the order they occur in the xml file.



To match the desired colors and style settings in all of the 4 examples, here is a stylesheet that you can use:

```
<?xml version='1.0' encoding='utf-8' ?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template name="Style1">
  <STYLE>
    H1 {COLOR: red; FONT-FAMILY: Arial; FONT-SIZE: 14pt;}
    H2 {COLOR: darkblue; FONT-FAMILY: Arial; FONT-SIZE: 12pt;}
    .subhead {COLOR: darkblue; FONT-FAMILY: Arial; FONT-SIZE: 12pt;}
    .text {COLOR: black; FONT-FAMILY: Arial; FONT-SIZE: 12pt;}
    TH {COLOR: white; FONT-FAMILY: Arial; background-color: darkblue;}
    TD {COLOR: blue; FONT-FAMILY: Arial}
    TR { background-color: beige; }
    BODY { background-color: beige; }
  </STYLE>
</xsl:template>
</xsl:stylesheet>
```

2. Create a second stylesheet that uses the same XML file and displays the employees in such a way that those with the same email domain are grouped together.



The next part of the exercise uses a second xml file, located at <http://www-scf.usc.edu/~csci571/2009Spring/hw4/Products.xml> whose contents appears below:

```
<catalog>
  <product>
    <prodid>V123049</prodid>
    <name>Bendable Sunglasses</name>
    <price>30</price>
    <quantity>1030</quantity>
  </product>
  <product>
    <prodid>C039890</prodid>
    <name>Sports Wrist Watch</name>
    <price>60</price>
    <quantity>1430</quantity>
  </product>
  <product>
    <prodid>M392829</prodid>
    <name>AutoPilot Road Navigator</name>
    <price>19</price>
  </product>
</catalog>
```

```
        <quantity>129</quantity>
    </product>
    <product>
<prodid>D190315</prodid>
    <name>StealthFinder GPS for Laptop</name>

        <price>100</price>
        <quantity>45</quantity>
    </product>
    <product>
        <prodid>E938393</prodid>
        <name>Frye Folding Leather Shopper</name>
        <price>89</price>
        <quantity>230</quantity>
    </product>
    <product>
        <prodid>V392839</prodid>
        <name>Pachislo Slot Machine</name>
        <price>595</price>
        <quantity>95</quantity>
    </product>
    <product>
        <prodid>K928379</prodid>
        <name>Sterling Cross Necklace</name>
        <price>100</price>
        <quantity>329</quantity>
    </product>
    <product>
        <prodid>I303920</prodid>
        <name>World Time Calculator</name>
        <price>30</price>
        <quantity>698</quantity>
    </product>
    <product>
        <prodid>U3923839</prodid>
        <name>Rock n Roll Supercart</name>
        <price>150</price>
        <quantity>200</quantity>
    </product>
    <product>
        <prodid>V667320</prodid>
        <name>Battery Pack</name>
        <price>20</price>
        <quantity>178</quantity>
    </product>
    ...
</catalog>
```

3. Create a stylesheet that lists the products in alphabetical order according to their name.



Product Listing

ID	Name	Price	Quantity
P8228829	Auto Map Light	18	129
M392829	AutoPilot Road Navigator	19	129
I3029320	Backgammon Box game set	55	3450
V667320	Battery Pack	20	178
V123049	Bendable Sunglasses	30	1030
M382932	CD Visor Organizer	19	129
Q3929302	Digital Tire Guage	40	623
E938393	Frye Folding Leather Shopper	89	230
E2930230	Manicure Set	30	299
V392839	Pachislo Slot Machine	595	95
L2329303	Personalized Credit Card Lighter	20	2450
P9392393	Personalized Travel Mug	30	3230
Y7829232	PowerTip Signal Booser	19	299
U3923839	Rock n Roll Supercart	150	200
V123049	Screen-Top Monitor Shelf	59	30
C039890	Sports Wrist Watch	60	1430
M7382393	Star Gazer Watch Pendant	30	1198
D190315	StealthFinder GPS for Laptop	100	45
K928379	Sterling Cross Necklace	100	329
L930389	Tobshiba Portable DVD Player	1299	30
V392039	Womens Bracelet Watch	175	335
I303920	World Time Calculator	30	698

Total Products: 22

Done 0.830s YSlow 0.08s

4. Using the same XML file of product listings, write a stylesheet that orders the products according to their ID field, as shown:

The screenshot shows a Mozilla Firefox browser window displaying a product listing. The browser's address bar shows a local file path: file:///c:/... The page title is "Product Listing". The table below is the content of the page, sorted by the ID field.

ID	Name	Price	Quantity
C039890	Sports Wrist Watch	60	1430
D190315	StealthFinder GPS for Laptop	100	45
E2930230	Manicure Set	30	299
E938393	Frye Folding Leather Shopper	89	230
I3029320	Backgammon Box game set	55	3450
I303920	World Time Calculator	30	698
K928379	Sterling Cross Necklace	100	329
L2329303	Personalized Credit Card Lighter	20	2450
L930389	Tobshiba Portable DVD Player	1299	30
M382932	CD Visor Organizer	19	129
M392829	AutoPilot Road Navigator	19	129
M7382393	Star Gazer Watch Pendant	30	1198
P8228829	Auto Map Light	18	129
P9392393	Personalized Travel Mug	30	3230
Q3929302	Digital Tire Guage	40	623
U3923839	Rock n Roll Supercart	150	200
V123049	Bendable Sunglasses	30	1030
V123049	Screen-Top Monitor Shelf	59	30
V392039	Womens Bracelet Watch	175	335
V392839	Pachislo Slot Machine	595	95
V667320	Battery Pack	20	178
Y7829232	PowerTip Signal Booser	19	299

Files to submit

Submit your XSL files electronically to the csci571 account so that they can be graded and compared.