CSC343 Worksheet 10 Solution

June 28, 2020

1. a) **Notes:**

- XPATH and Selecting Nodes
  - nodename
    * Selects all nodes with the name "nodename"
  - /
    * Selects from the root node
  - //
    * Selects node in the document from the current node that match the selection no matter where they are
  - .
    * Select the current node
  - ..
    * Selects the parent of the current node
  - @
    * Selects attributes

Example:

```
1    /StarMovieData/Star//City
2
```

- selects all City element in

  <StarMovieData>
    <Star>
      Here :)
    </Star>
  </StarMovieData>

- Wildcards *
  - Is used to say 'any tag'

Example:

```
1      /StarMovieData/*/@*
2
```

- '@*' means any attributes
- '*' means any tag

- Context of Expressions
  - [...] means that exists or there exists
  - [*integer*] selects ith child of its parent
  - [*Tag*] selects elements that have one or more sublements with 'Tag'
  - [*Attribute*] selects elements that have attribute 'Attribute'

  Example:

  ```
  1      /StarMovieData/Star [//City = "Malibu"]/Name
  2
  ```

  * Means select all Star Name that contains City with value 'Malibu'

  Example:

  ```
  1      /Movies/Movie/Version [1]/@year
  2
  ```

  * Returns value of 'year' attribute of first 'Version' tag in 'Movie'
  * e.g. 1933 and 1984

```
1)   <? xml version="1.0" encoding="utf-8" standalone="yes" ?>
2)   <Movies>
3)       <Movie title = "King Kong">
4)           <Version year = "1933">
5)               <Star>Fay Wray</Star>
6)           </Version>
7)           <Version year = "1976">
8)               <Star>Jeff Bridges</Star>
9)               <Star>Jessica Lange</Star>
10)          </Version>
11)          <Version year = "2005" />
12)      </Movie>
13)      <Movie title = "Footloose">
14)          <Version year = "1984">
15)              <Star>Kevin Bacon</Star>
16)              <Star>John Lithgow</Star>
17)              <Star>Sarah Jessica Parker</Star>
18)          </Version>
19)      </Movie>
20)  </Movies>
```

Result of
/Movies/Movie/Version[1]/@year