XPath Expressions - Part 4

- XPath functions: Part2 (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
  - Find the first child of 'body' tag - //body/*[1]
  - last() - Find the last child of 'body' tag - //body/*[last()]
  - Find the first 'p' tag - //p[1]
  - last() - Find the last 'p' tag - //p[last()]
  - Find the last but one 'p' tag - //p[last()-1]
  - Locate the last but 2 input tag - (//input)[last()-2] (Demonstrate at http://omayo.blogspot.in/)
  - Find second 'p' tag having class 'sub' - //p[2][@class='sub']
  - Find the last 'p' tag having class 'sub' - //p[last()][@class='sub']
  - Find the last but one 'p' tag having class 'main' - //p[last()-1][@class='main']
- XPath functions: Part3 (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
  - position() - Find the first 'p' tag - //p[position()=1]
  - position() - Find the second 'p' tag - //p[position()=2]
  - position() - Find the 8th input tag - (//input)[position()='8'] (Demonstrate at http://omayo.blogspot.in/)

- XPath AXES: (Demonstrate at http://omayo.blogspot.in/)
  - Purpose:
    - If you want to locate an element which doesn't have id/name/class etc., with the help of XPath Axes we can locate such elements not having id/name/class with the help of id/name/class attributes of ancestor/descendant tags.
  - following
    - Purpose: Selects everything in the document after the closing tag of the current node
    - Find all the 'body' tags after the 'head' tag - //head/following::body
    - Find all the 'div' tags after //body/div[1]/div - //body/div[1]/div/following::div
    - Find the first 'div' after //body/div[1]/div - //body/div[1]/div/following::div[1]
    - Find all the 'input' tags after //body/div[1] - //body/div[1]/following::input
  - preceding
    - Purpose: Selects all nodes that appear before the current node in the document, except ancestors nodes
    - Find all the 'head' tags before the 'body' tag - //body/preceding::head
    - Find all the 'div' tags before //body/div[4] - //body/div[4]/preceding::div
  - following-sibling
    - Purpose: Selects all siblings after the current node
    - Find all the 'div' tag siblings after //body/div[1] - //body/div[1]/following-sibling::div
    - Find all the 'p' tag siblings after //body/p[1] - //body/p[1]/following-sibling::p (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
  - preceding-sibling
    - Purpose: Selects all siblings before the current node
    - Find all the 'div' tag siblings before //body/div[4] - //body/div[4]/preceding-sibling::div
    - Find all the 'p' tag siblings before //body/p[2] - //body/p[2]/preceding-sibling::p (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
  - parent
    - Purpose: Selects the parent of the current node
    - Find the parent of 'head' tag - //head/parent::html
    - Find the parent of 'body' tag - //body/parent::html
    - Find the parent of 'title' tag - //title/parent::head
    - Find the parent of first 'div' tag inside 'body' tag i.e. //div[1] - //div[1]/parent::body
  - child
    - Purpose: Selects all children of the current node
    - Find one of the child tag say 'head' of 'html' tag - //html/child::head
    - Find one of the child tag say 'body' of 'html' tag - //html/child::body
    - Find one of the child tag say 'title' of 'head' tag - //head/child::title
    - Find one of the child tag say first 'div' tag of 'body' tag - //body/child::div[1]
  - ancestor
    - Purpose: Selects all ancestors (parent, grandparent, etc.) of the current node
    - Find the ancestor 'html' tag for 'title' tag - //title/ancestor::html
    - Find the ancestor 'html' tag for 'head' tag - //head/ancestor::html

        - Find the ancestor 'html' tag for 'body' tag - //body/ancestor::html
    - descendant
        - Purpose: Selects all descendants (children, grandchildren, etc.) of the current node
        - Find the descendant 'title' tag for 'html' tag - //html/descendant::title
        - Find the descendant 'head' tag for 'html' tag - //html/descendant::head
        - Find the descendant 'body' tag for 'html' tag - //html/descendant::body

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- Miscellaneous XPath expressions:
    - //html/body//p[@class='sub'] (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
    - Working with a Table: (Demonstrate at http://omayo.blogspot.in/)
        - Finding the entire table - //table[@id='table1']
        - Finding all the rows in the table - //table[@id='table1']//tr
        - Finding all the table headings in the table - //table[@id='table1']//tr//th
        - Finding all the table data in the table - //table[@id='table1']//tr//td
        - Finding all the cells in the table - //table[@id='table1']//tr//th | //table[@id='table1']//tr//td
        - Finding the 2nd row and 3rd cloumn - //table[@id='table1']//tr[2]//td[3]
        - Finding the table cell having text 'Pune' - //td[text()='Pune']
    - Using wild cards in XPath Expressions:
        - * - //*[@id='radio1']
        - * - //*[@*='radio1']
        - node() (Demonstrate at http://compendiumdev.co.uk/selenium/basic_web_page.html)
            - Absolute XPath without using node() - /html/body/p[1]
            - Absolute Xpath after using node() - /node()/node()/p[1]
            - Absolute Xpath after using node() - /html/node()/p[1]
            - Relative Xpath without using node() - //body/p[1]
            - Relative Xpath after using node() - //node()/p[1]
