

# Abstractions and Paradigms of Programming

**Bachelor of Engineering**

**Computer Engineering**

**II nd Year IV th Semester**

# XML XPATH

- XPath stands for XML Path Language
- XPath uses "path like" syntax to identify and navigate nodes in an XML document
- XPath uses path expressions to select nodes or node-sets in an XML document.
- These path expressions look very much like the path expressions you use with traditional computer file systems

# Demo XML

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

<bookstore>

<book category="cooking">
  <title lang="en">Everyday Italian</title>
  <author>Giada De Laurentiis</author>
  <year>2005</year>
  <price>30.00</price>
</book>

<book category="children">
  <title lang="en">Harry Potter</title>
  <author>J K. Rowling</author>
  <year>2005</year>
  <price>29.99</price>
</book>
</bookstore>
```

# Absolute and Relative XPATH

## Absolute XPATH

- Let suppose we want to access the author of the second book in the book store

`/bookstore/book[2]/author`

## Relative XPATH

`//*/book[2]/author`

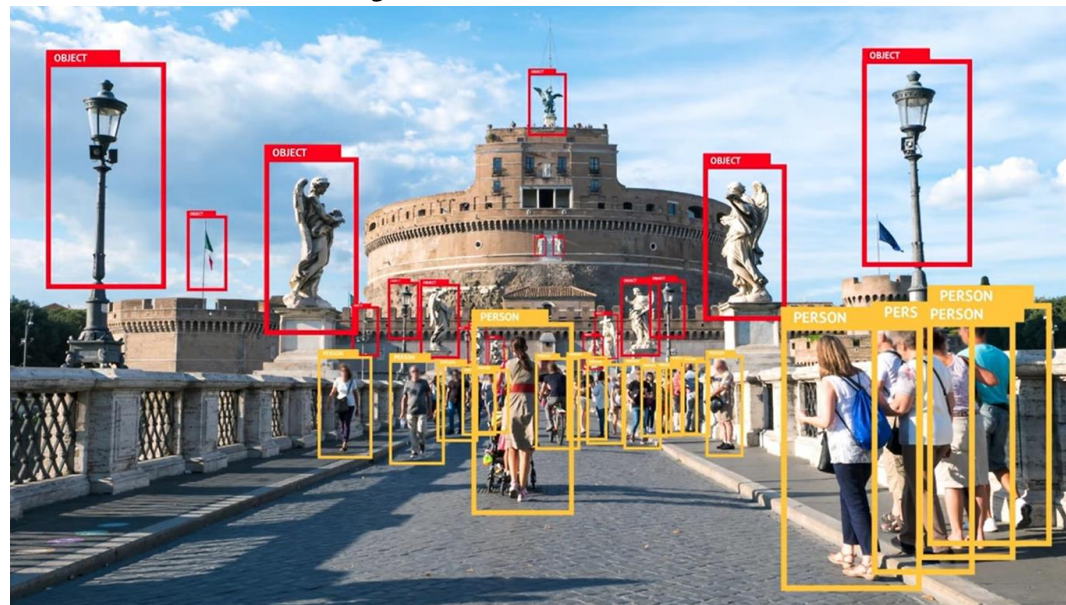
/bookstore/book[1]	Selects the first book element that is the child of the bookstore element
/bookstore/book[last()]	Selects the last book element that is the child of the bookstore element
/bookstore/book[position()<3]	Selects the first two book elements that are children of the bookstore element
//title[@lang]	Selects all the title elements that have an attribute named lang
//title[@lang='en']	Selects all the title elements that have a "lang" attribute with a value of "en"
/bookstore/book[price>35.00]	Selects all the book elements of the bookstore element that have a price element with a value greater than 35.00
/bookstore/book[price>35.00]/title	Selects all the title elements of the book elements of the bookstore element that have a price element with a value greater than 35.00



# Computer Vision

How Computers can be made to gain high level understanding from digital images or videos.

The objective is to automate the task that the human visual systems can do i.e., the computer should be able to recognize that this is a human being or this is an object and so on..



# How does a computer reads an image ?

