

University of Pittsburgh  
Department of Electrical and Computer Engineering  
ECE 0302: Data Structures and Algorithms

Name:

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### PROJECT 3: XML PARSER

**DUE SUNDAY MARCH 6, 11:59 PM**

Late submission with 30% penalty by Tuesday 11:59 PM following the due date

**What to submit:**

Follow the project instructions to develop your program, then run “make submission” and submit the zip file via Canvas. Using this file as a template, write your name above and write responses to the short answer questions below. Upload this file with your responses **as a pdf** via Canvas.

1. (90 pts) Submit a zip file of your code via Canvas, ensuring that your solution meets all of the requirements described in the project instructions.
2. (3 pts) Describe how you applied concepts learned in class to this project.

The purpose of this project utilized the concept of grammar in order to parse valid XML files. I also applied skills we learned about like stack implementation, ADT bags, Nodes (lists) + iterative methods for this project.

3. (5 pts) Describe at least one point of difficulty or challenge that you encountered during this project and describe your approach to overcoming that difficulty / solving the problem.

I faced difficulty with segmentation faults caused by infinite loops—specifically in my `tokenizeInputString` function. To fix this, I examined each loop in the code, used `cout` statements to keep track of where I was iterating in the input string.

4. (2 pts) Cite any useful references that you utilized to complete this project (e.g., articles, textbook pages, people).

[techlight.com](http://techlight.com) was useful for writing the helper `deleteAttributes` function to remove whitespace from a string. Also the TA's were extremely helpful.