IT 328 Programming Assignment 1 (50 points)

Converting NFA to DFA

In this assignment, you will implement the algorithm that converts an NFA to a DFA. Upon a successful implementation, your algorithm should be able to convert the following NFA to DFA:

|  |  |
| --- | --- |
|  | Shape  Description automatically generated with medium confidence |
| Diagram  Description automatically generated | Diagram, schematic  Description automatically generated |

Requirements:

1. The pseudo code of the algorithm is provided inside the lecture’s slides. The examples in the slides are crucial to understand how the algorithm works.
2. Your program must be written in Python.
3. Your program must pass the tests using the above 4 examples.
4. The py file provided to you is a good starting point.
5. This assignment can be a group assignment, with the maximum number of group members being 3. Each group only needs to turn in one copy of solution, with each member’s name and ULID clearly documented.
6. Due February 22 at 11:55 pm.