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Department

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Course: BBM203
Experiment: Assignment 3
Subject: Stack
Due Date: 17/12/2021
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Programming Language: C++

2. Software Using Documentation

2.1 Software Usage
-> This program takes 3 inputs as text. 2 of them are for determining the deterministic step. And remaining the remaining one is used for determining the output file.

2.3 Error messages
-> There is one error message for this program. That is "Error there is no such file". This error occurs when the given input can't seen by the program.

3. Software Design Notes
3.1 Description of the program
3.1.1 Problem
-> We are suppose to do a DPDA program that will evaluate 2 input files and accordingly gives an output file.

3.1.2 Solution

->First of all I created a file named "structs.h" that keeps every global data structure. Second file I created is "Methods.h". In this file I keep every method that will be executed by program. I have 2 different reader methods. One for "dpdaX.txt" named files and other for "inputX.txt" named files.Difference between them is one method adds "\n" at the end of the readed line, other one doesn't add "\n". I have validtiy checker methods for states, stack and alphabet.These methods checks if in the given input these variables are compatible with rules of this assignmnet or not.

I have a deterministicStep method for deterministic step of this assignment □. Other methods are output modifiers that take an input and convert it to the correct form.

3.4 Algorithm

-> For this assignment I created an inputTaker method that takes an input file and reads it. After reading it method creates a string to store the data. After creating the string ,method parses the string and stores the elements in the string in a vector. After that program acts accordingly and calls deterministic step for each element in the vector.

-> Another method for this assignment is dpdaCreater . This method reads a dpda file and pushes the elements to relevant data structures. inputTake method uses these relevant data sturctures while evaluating outputs of the program.