Graphical Representation Of Stack Operations

Team project members:

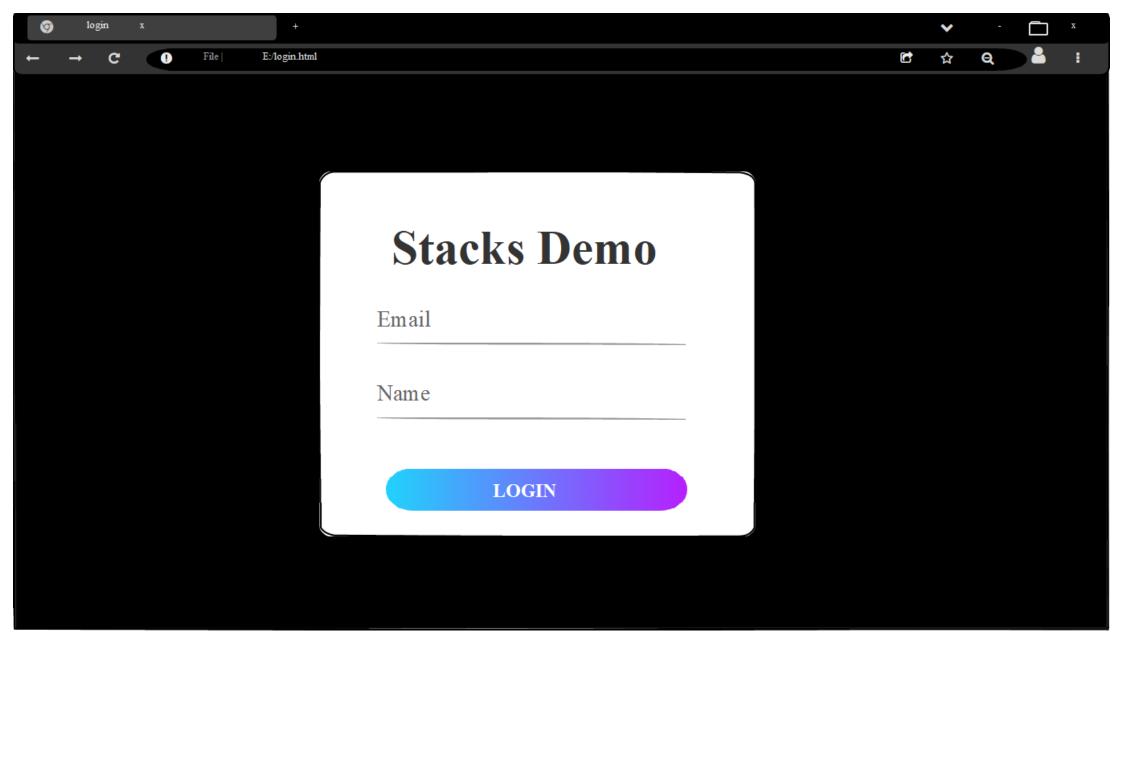
Name - SRN

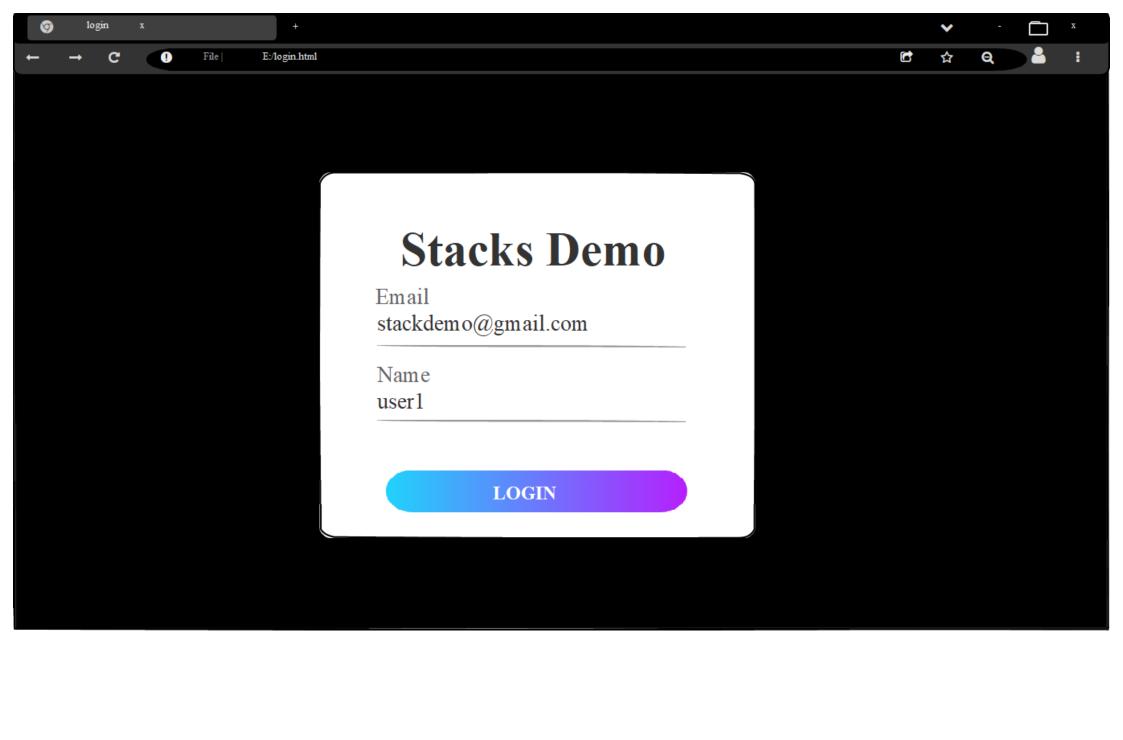
Karthik Sarode - PES1PG21CA030

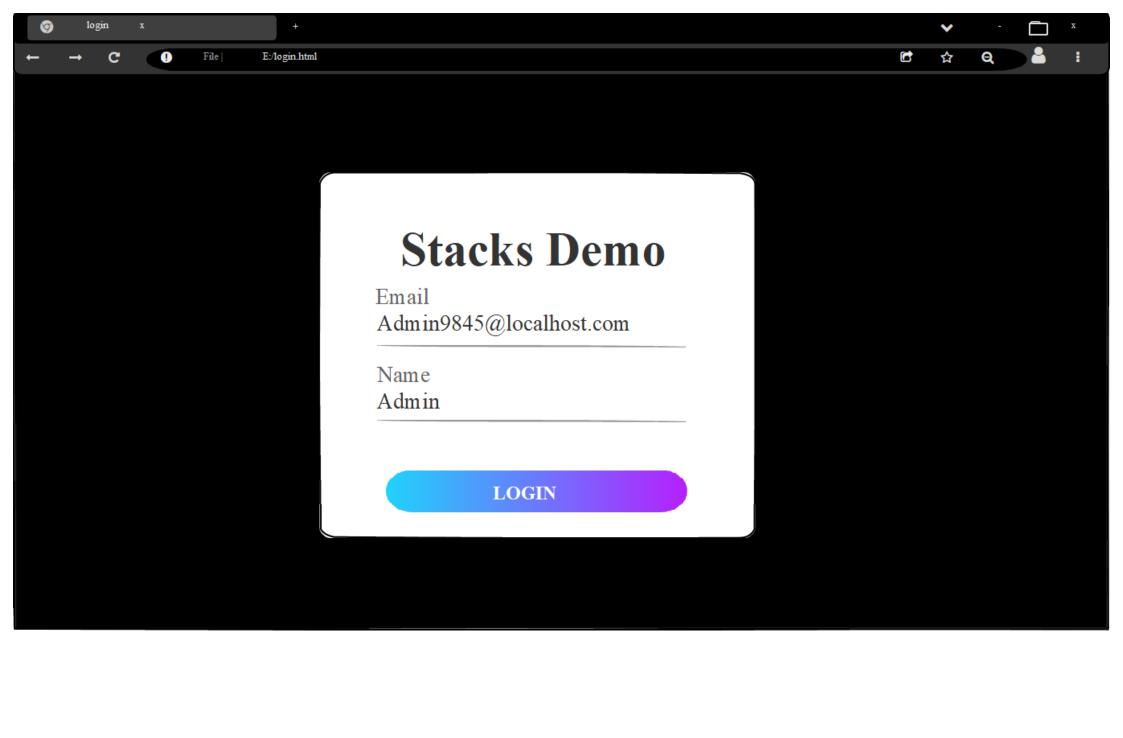
M. Sasikumar - PES1PG21CA038

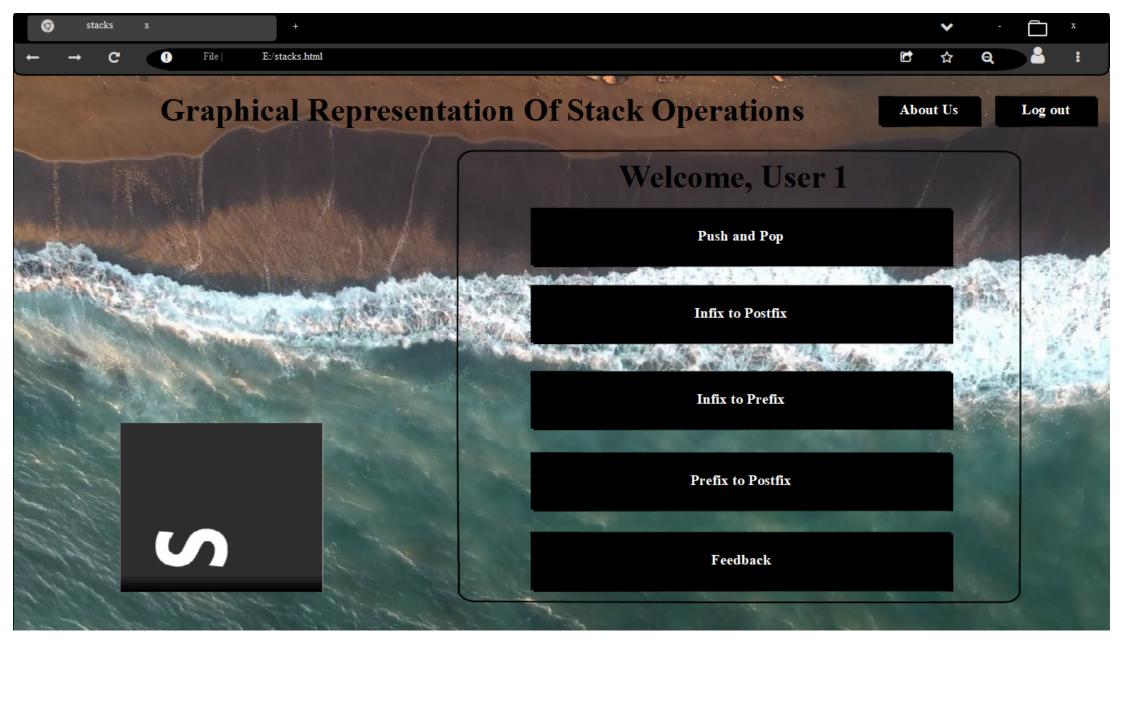
Narayana .P - PES1PG21CA048

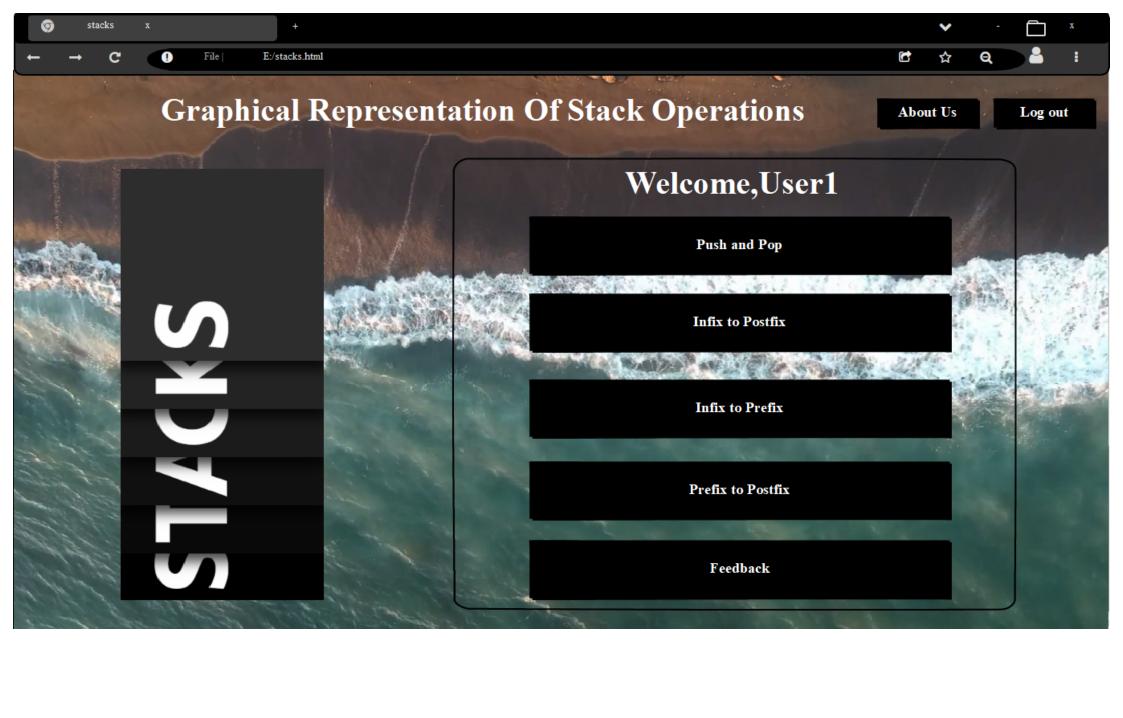
Karthik R Bhat - PES1PG21CA031

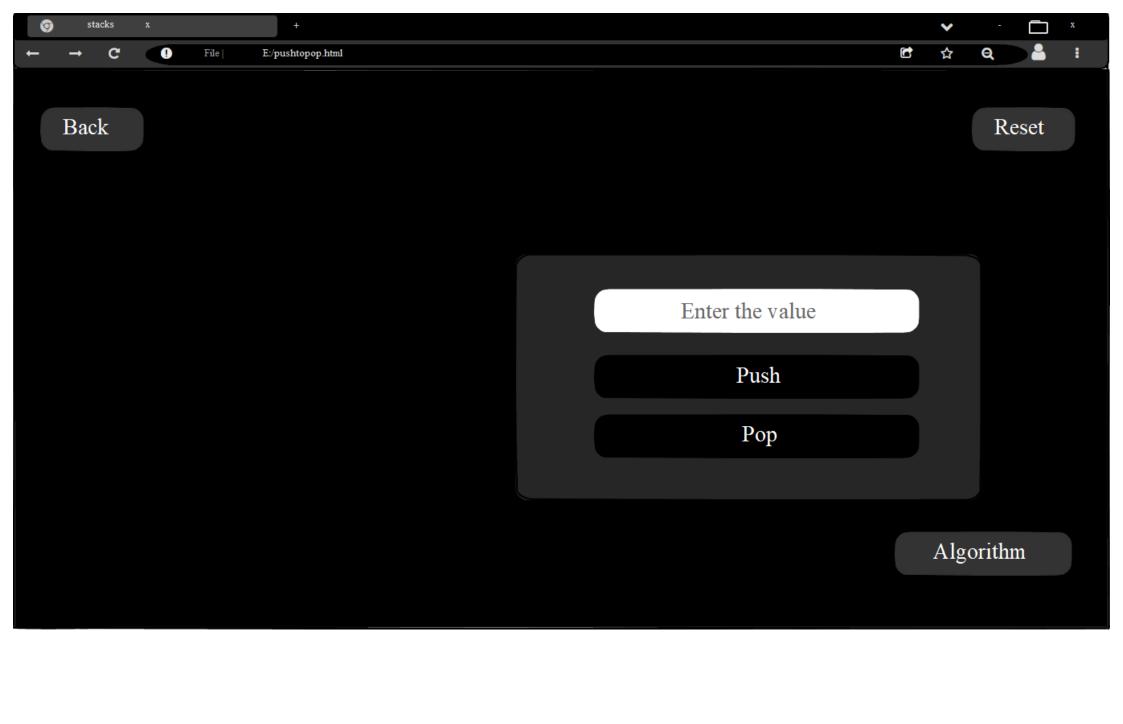


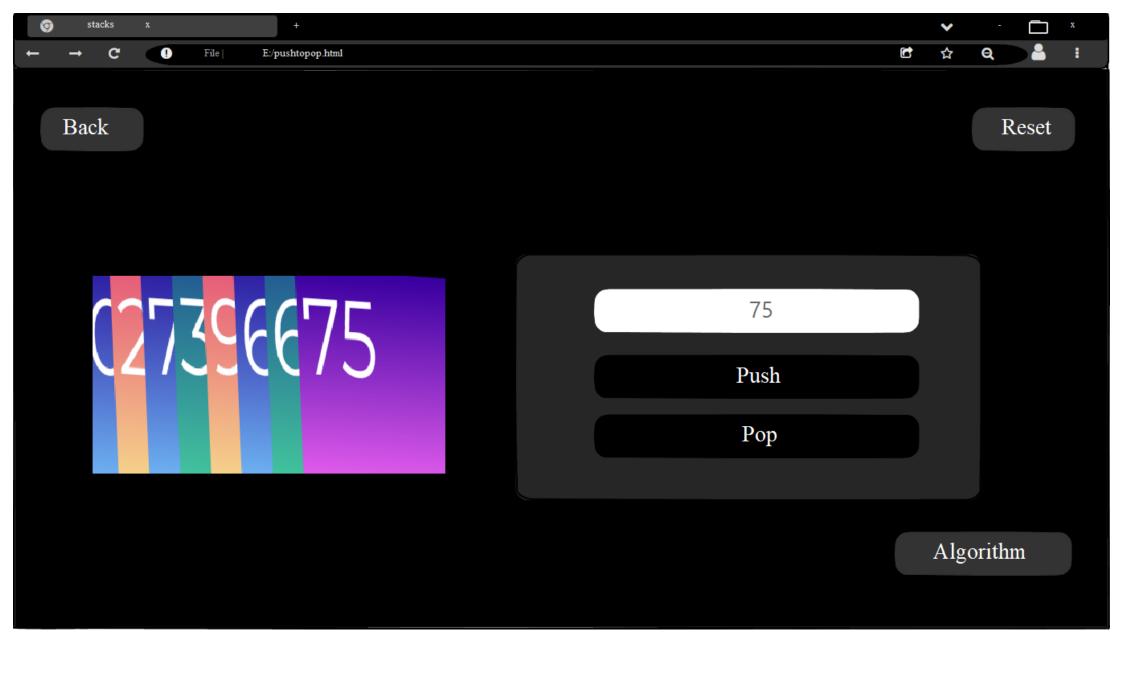


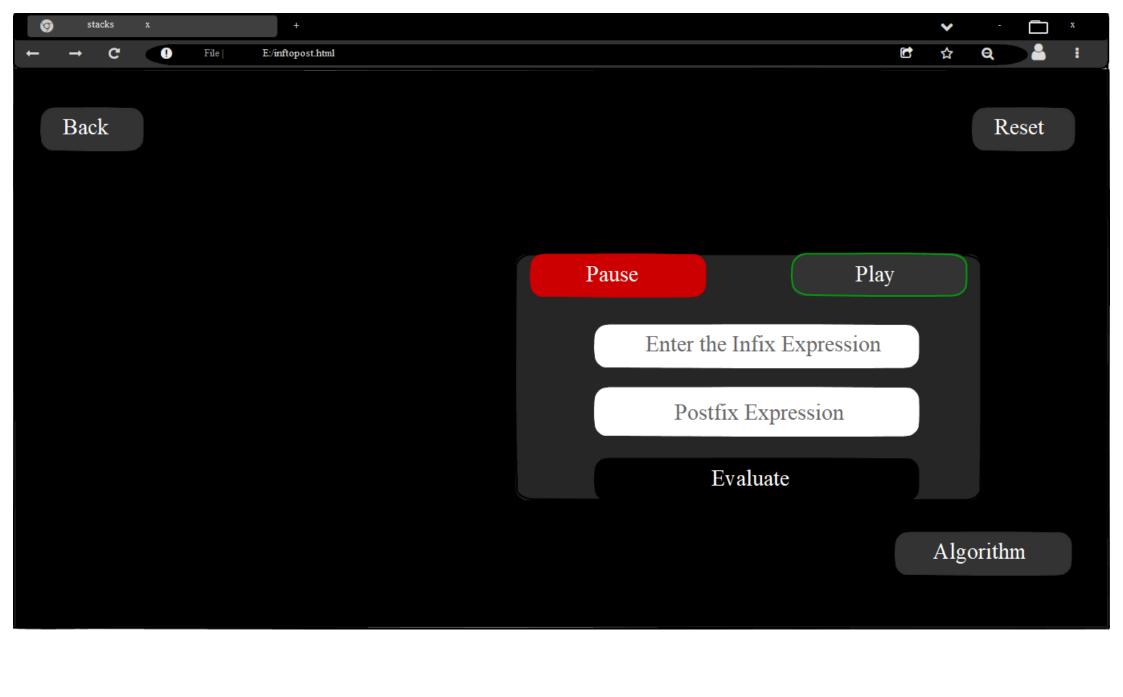


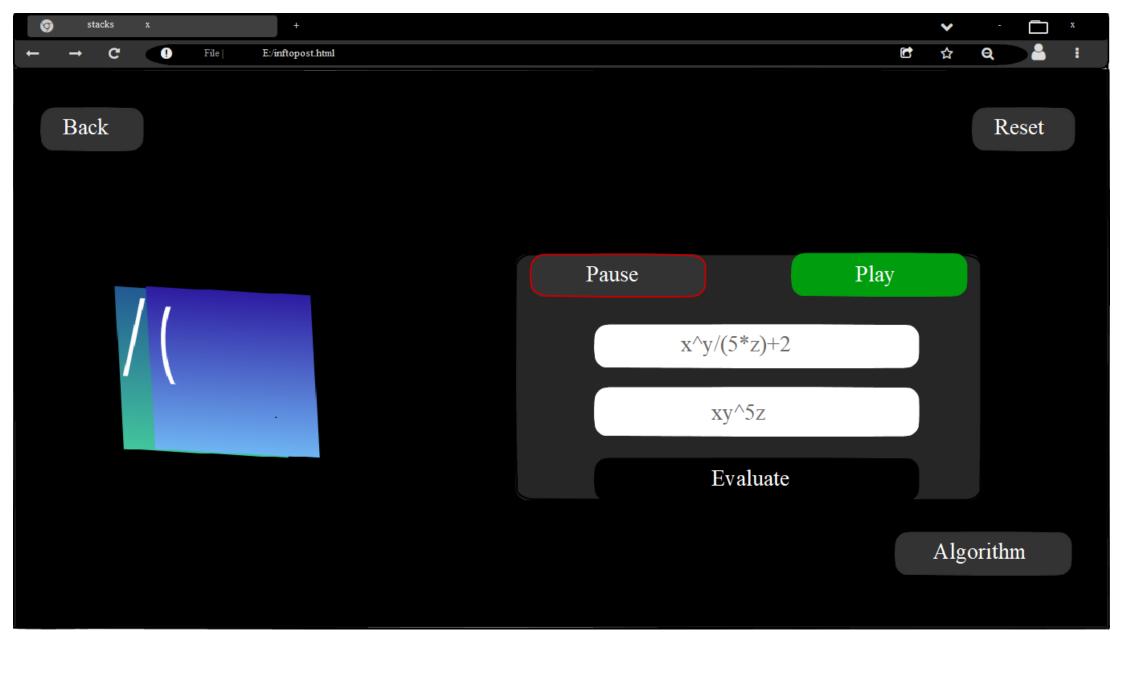


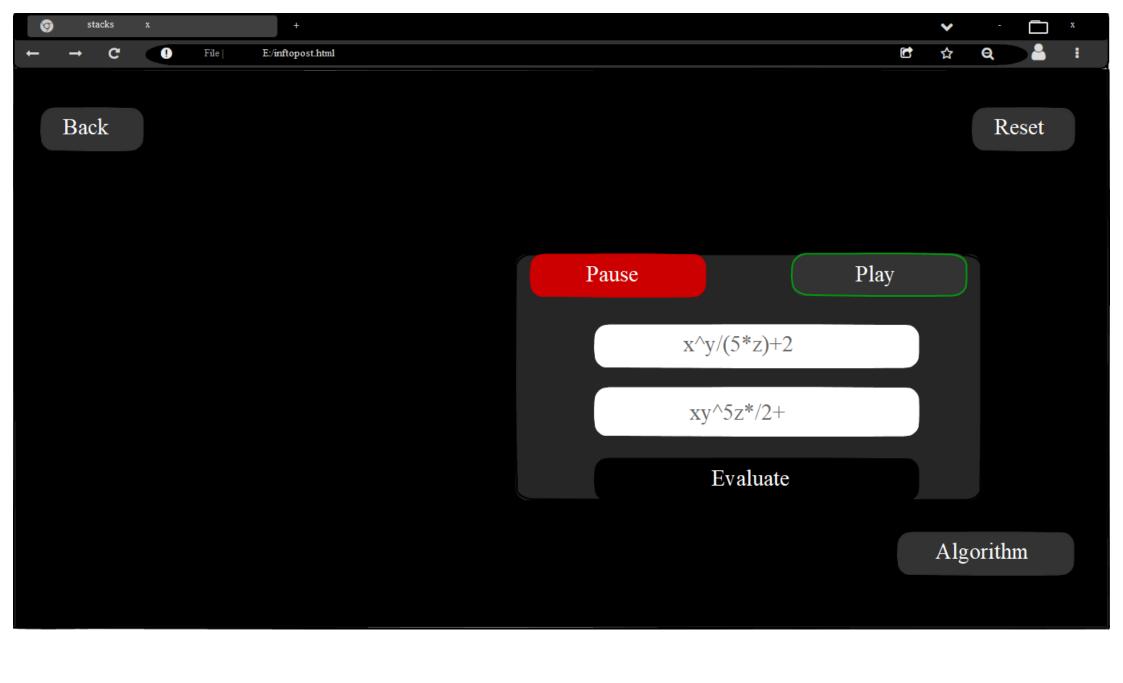


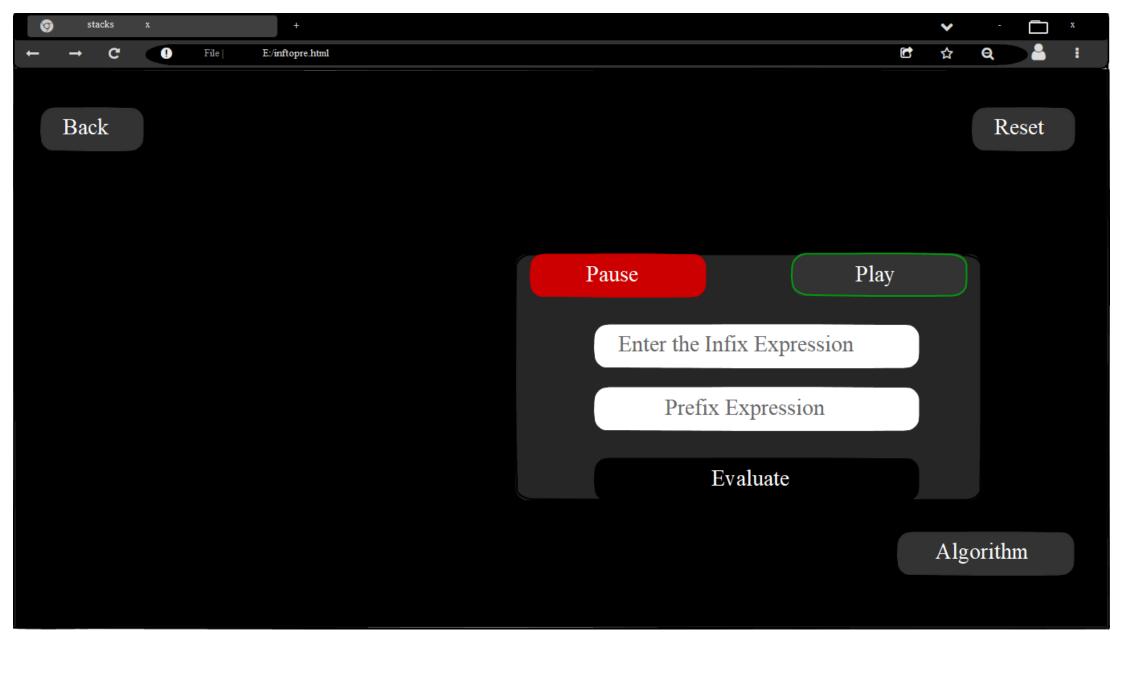




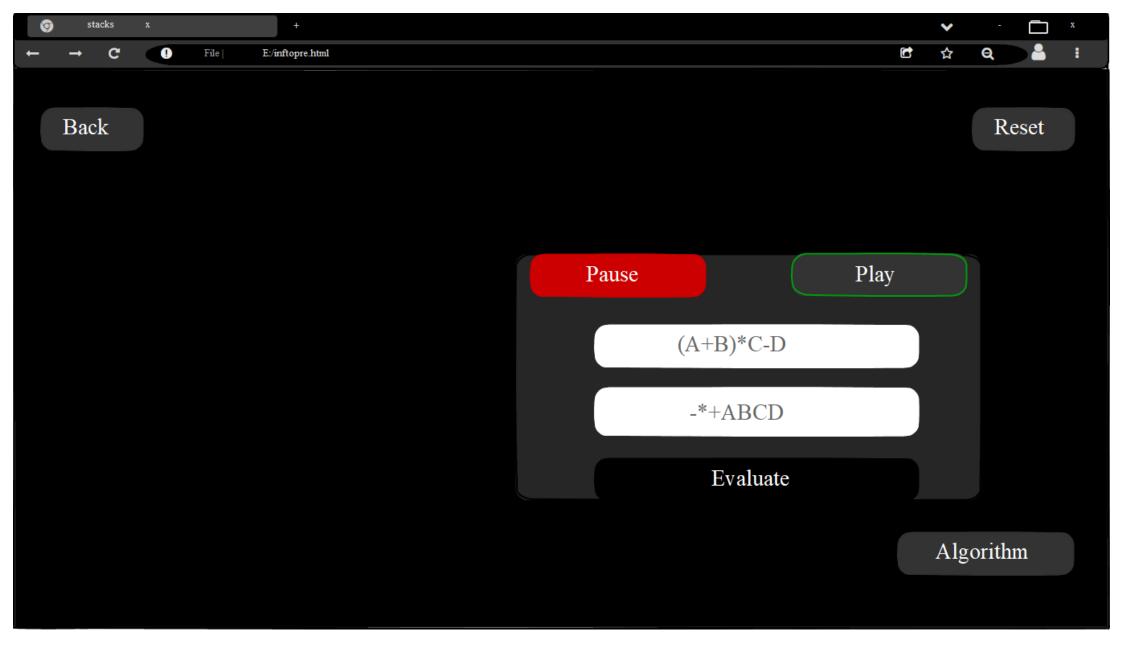


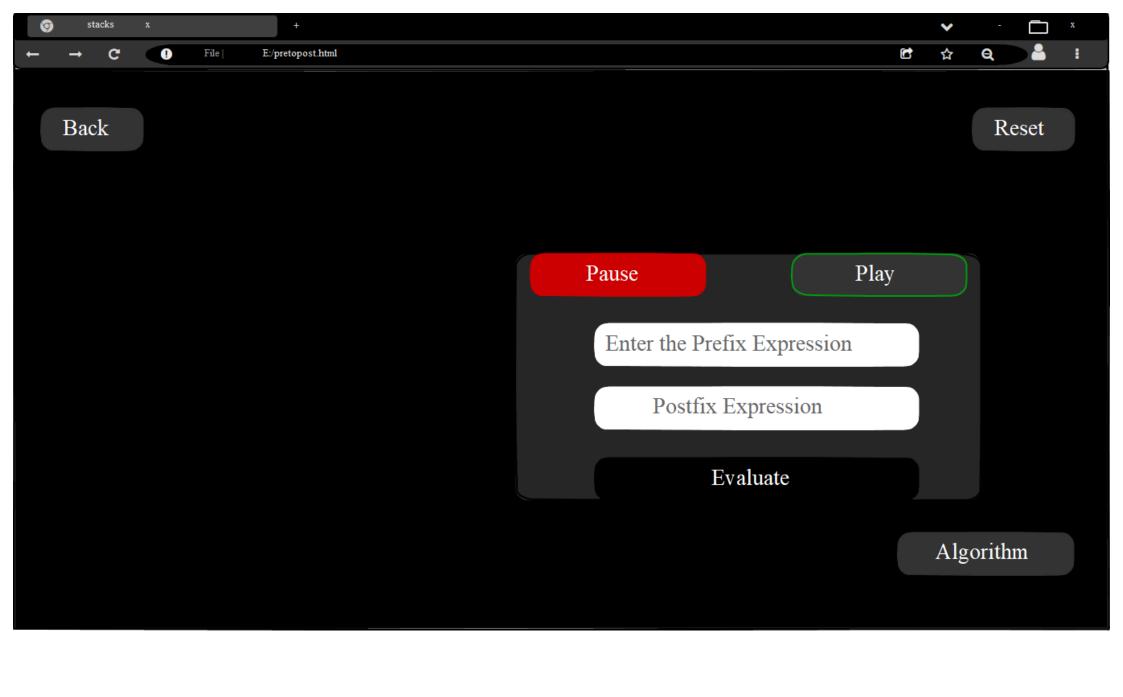


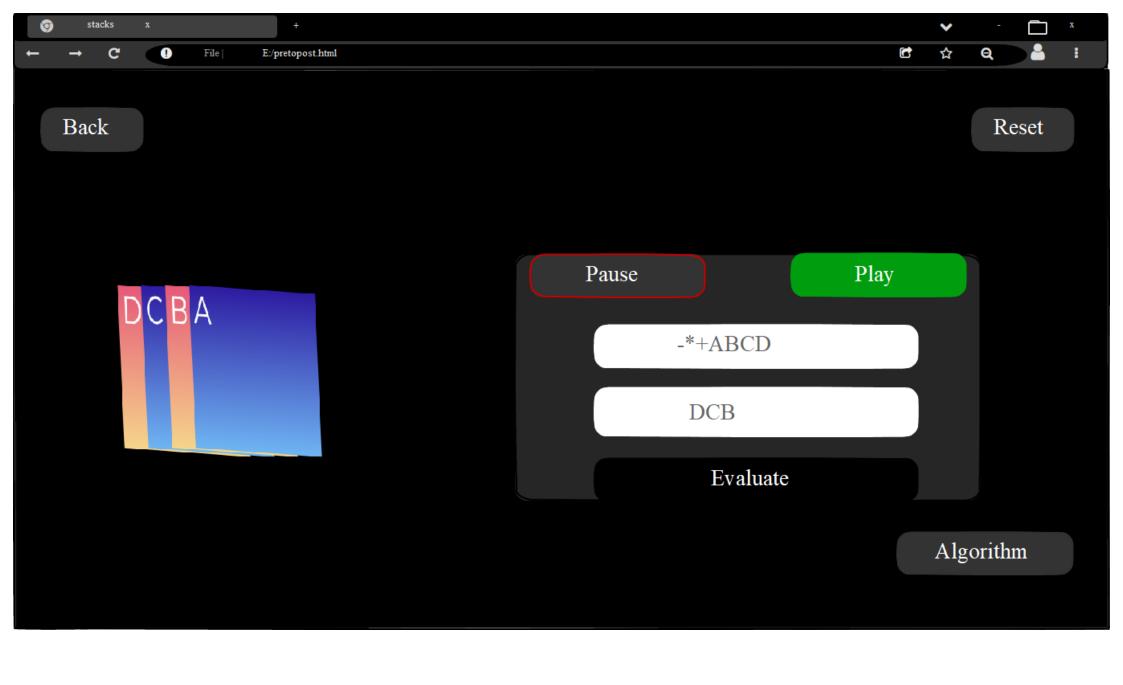


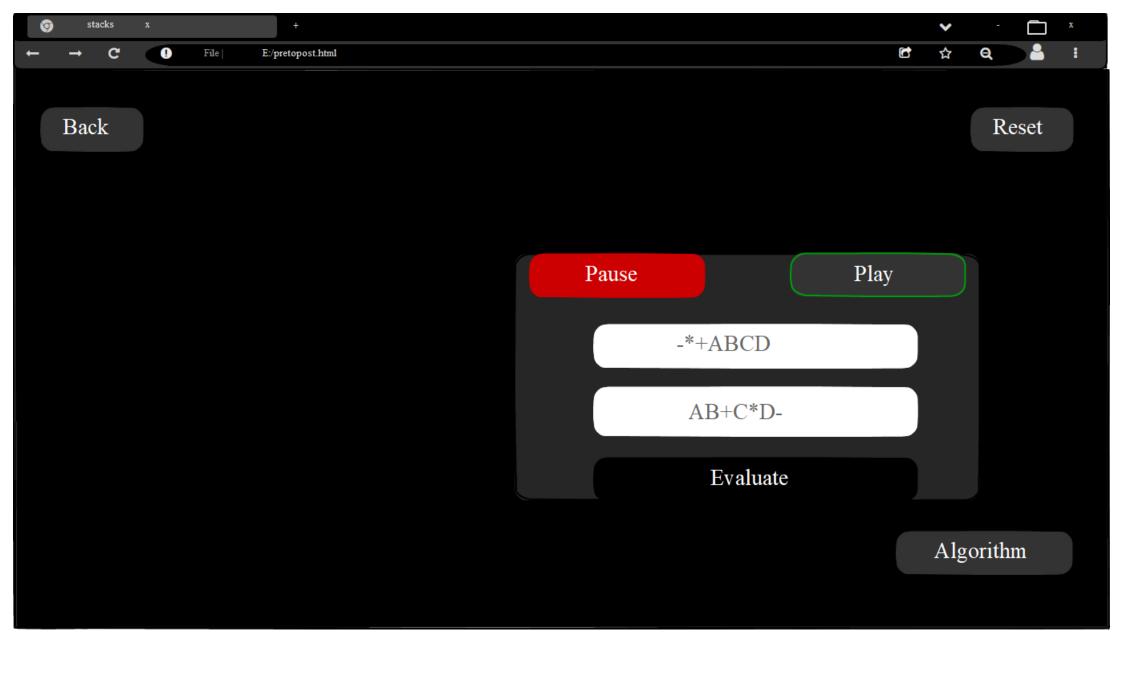


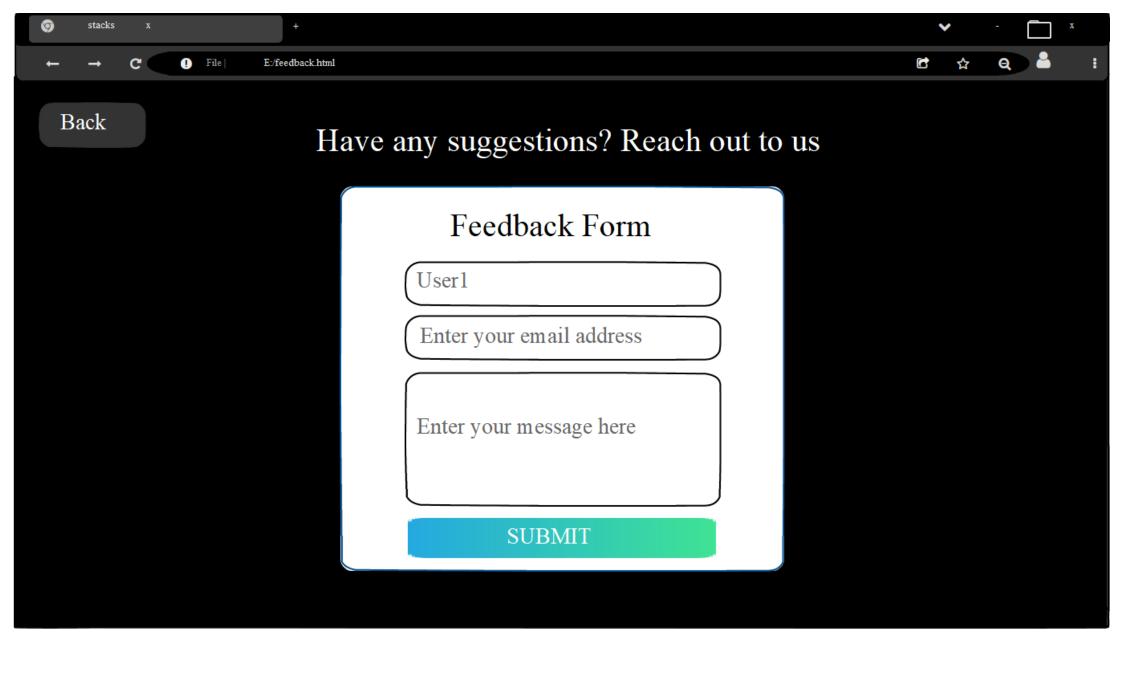


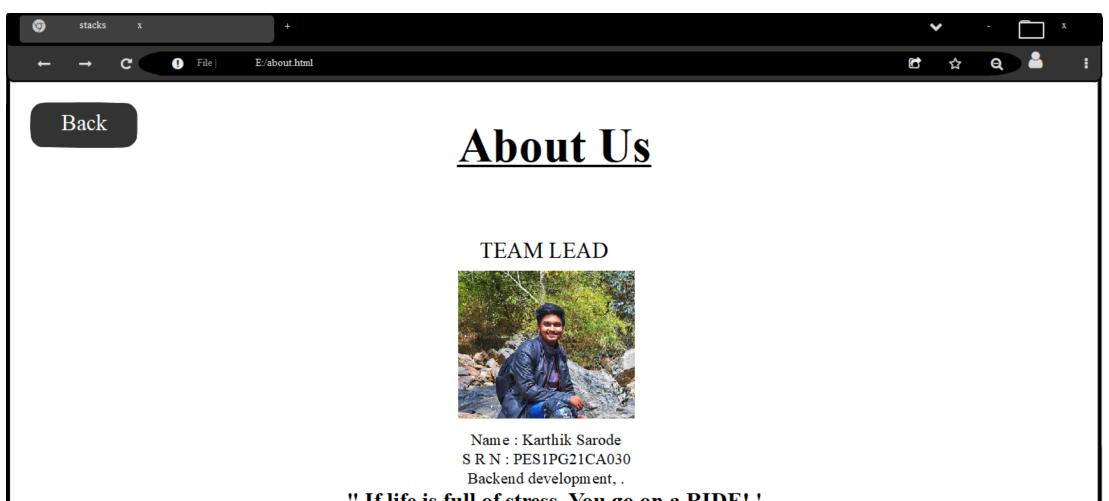












" If life is full of stress. You go on a RIDE! '

FRONTEND DEVELOPER



STACK REPRESENTATION

A stack is an Abstract Data Type (ADT), commonly used in most programming languages. It is named stack as it behaves like a real-world stack, for example - a deck of cards or a pile of plates, etc.

Stack operations may involve initializing the stack, using it and then deinitializing it. Apart from these basic stuffs, a stack is used for the following two primary operations —

ALGORITHM FOR PUSH AND POP OPERATION

Step 1:Start

Step 2: If Top=Max-1

Print "Overflow: Stack is full" and Exit



INFIX AND POSTFIX EXPRESSION

When the operator is written in between the operands, then it is known as infix notation. Operand does not have to be always a constant or a variable; it can also be an expression itself.

For example, -(p+q)*(r+s)

The postfix expression is an expression in which the operator is written after

ALGORITHM FOR INFIX TO POSTFIX EXPRESSION

Let, X is an arithmetic expression written in infix notation. This algorithm finds the equivalent postfix expression Y.

Step 1: Start

INFIX EXPRESSION AND PREFIX EXPRESSION

Infix expression:

$$(p+q)*(r+s)$$

Syntax of infix notation is given below:

< operand > < operator > < operand >

Prefix expression:

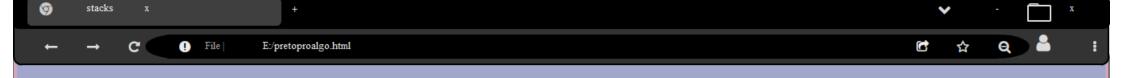
• +na +re

ALGORITHM FOR INFIX TO PREFIX EXPRESSION

Iterate the given expression from left to right, one character at a time

Step 1: Start

Step 2: First reverse the given expression



PREFIX EXPRESSION, POSTFIX EXPRESSION

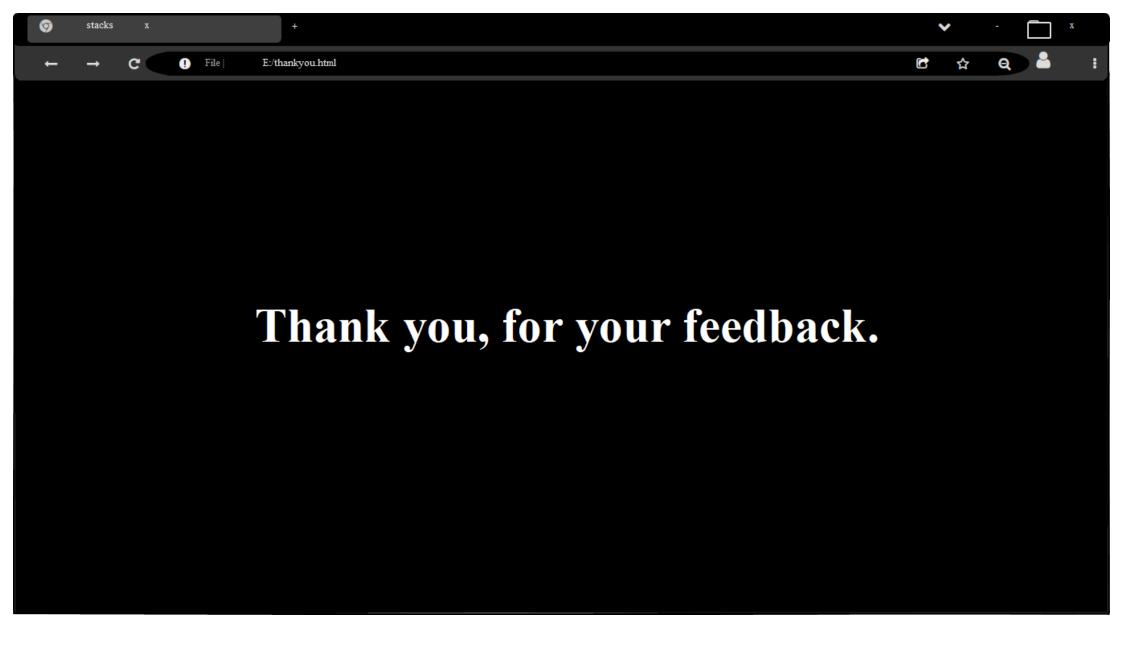
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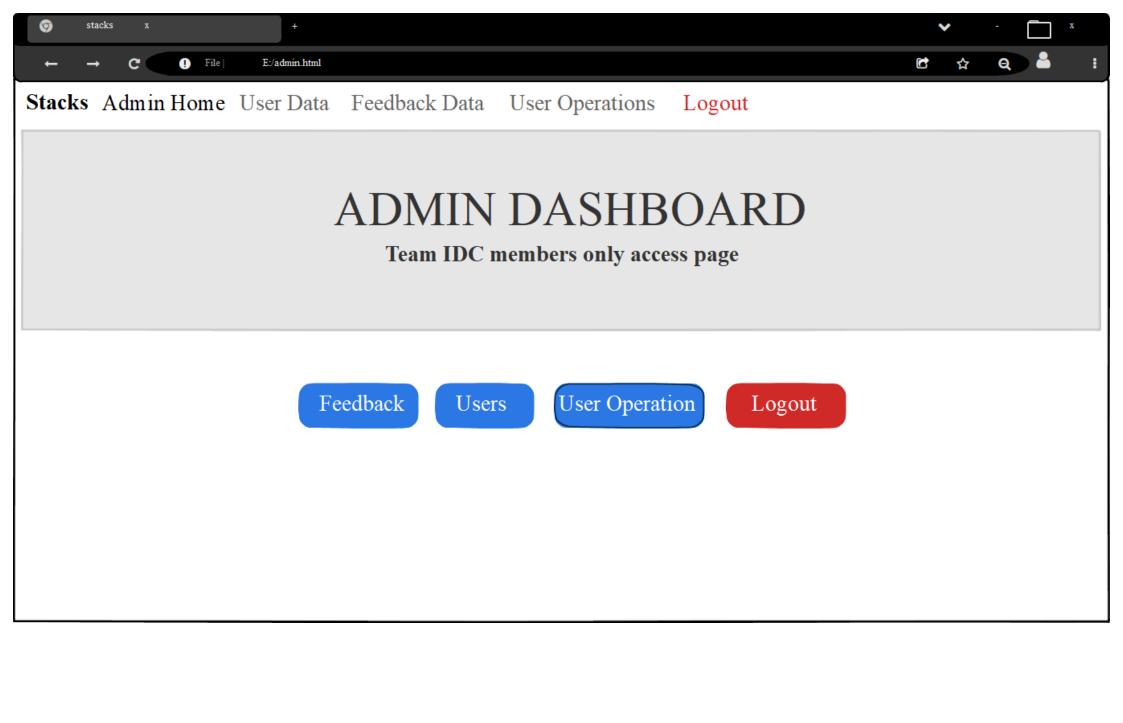
Stack operations may involve initializing the stack, using it and then deinitializing it. Apart from these basic stuffs, a stack is used for the following two primary operations —

ALGORITHM FOR PREFIX TO POSTFIX EXPRESSION

Let, Q be the arithematic expression written in prefix notation. P is the postfix notation.

Step 1: Start







User DASHBOARD

| Name | Email | user ID | Register Date |
|-------|-----------------|---------|---------------|
| user1 | userl@gmail.com | 1 | 2022-04-18 |
| user2 | user2@gmail.com | 2 | 2022-04-18 |
| user3 | user3@gmail.com | 3 | 2022-04-18 |
| user4 | user4@gmail.com | 4 | 2022-04-18 |



Stacks Admin Home User Data Feedback Data User Operations Logout

FEEDBACK DASHBOARD

| Name | Email | Message | Date |
|-------|-----------------|------------------------|------------|
| userl | user1@gmail.com | Great UI design | 2022-04-18 |
| user2 | user2@gmail.com | Project is great! | 2022-04-18 |
| user3 | user3@gmail.com | good built quality. | 2022-04-18 |
| user4 | user4@gmail.com | user friendly website. | 2022-04-18 |



Infix To Postfix data 🗸 1

| User ID | Expression Value | TimeStamp |
|---------|-------------------|---------------------|
| 1 | A+B | 2022-04-18 06:36:46 |
| 1 | A+B+C | 2022-04-18 08:14:09 |
| 1 | (A + B) * (C + D) | 2022-04-18 21:41:23 |