DSA Lab 1

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**Write a program to implement the Stack operation to reverse the String in c.**

#include <stdio.h>

#include <string.h>

#define MAX 100

char stack[MAX];

int top = -1;

void push(char);

char pop();

int isFull();

int isEmpty();

int main()

{

char str[MAX];

int i, len;

printf("Enter a string: ");

gets(str);

len = strlen(str);

for (i = 0; i < len; i++)

{

push(str[i]);

}

for (i = 0; i < len; i++)

{

str[i] = pop();

}

printf("Reverse string is: %s", str);

return 0;

}

void push(char ch)

{

if (isFull())

{

printf("Stack is full. Overflow condition! \n");

}

else

{

top++;

stack[top] = ch;

}

}

char pop()

{

char ch;

if (isEmpty())

{

printf("Stack is empty. Underflow condition! \n");

return 0;

}

else

{

ch = stack[top];

top--;

return ch;

}

}

int isFull()

{

if (top == MAX - 1)

return 1;

else

return 0;

}

int isEmpty()

{

if (top == -1)

return 1;

else

return 0;

}

Output

