Institute of Computer Technology

B. Tech Computer Science and Engineering

Subject: DS (2CSE302)

MIDSEM - 1

PRACTICAL-EXAM

AIM: - Akshar is working at admin Department of Ganpat University. He wants to create a simple encode for each string by reversing it. For a given string "DataQuiz", it should be converted to "ziuQataD" (Reverse string). Kindly follow the given scenario and provide appropriate solution to reverse the string in C using stack. Create an empty character stack of maximum size 10 and the perform push and pop operation with element display.

SOLUTION

```
//header files
#include <stdio.h>
#include <string.h>
#define MAX 10
//global variables
int Top=-1;
int x;
char Yash[MAX];
//push function
void Push(char x)
      if(Top==MAX-1)
            printf("\nOverflow...\n");
      else
             Top=Top+1;
             Yash[Top]=x;
//pop function
char Pop()
      if(Top==-1)
```

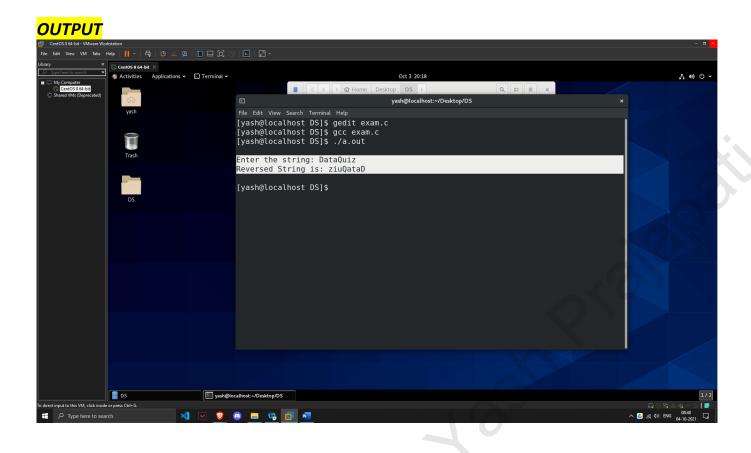
DATA STRUCTURE (2CSE302) 1

```
printf("\nStack is Empty...\n");
      }
      else
      {
             x=Yash[Top];
             Top=Top-1;
      }
      return x;
}
//main code
int main()
      char Yash[MAX];
      int i;
      //user input
      printf("\nEnter the string: ");
      scanf("%s",Yash);
      //pushing string
      for(i=0;i<strlen(Yash);i++)</pre>
             Push(Yash[i]);
      //poping string
      for(i=0;i<strlen(Yash);i++)</pre>
             Yash[i]=Pop();
      }
      printf("Reversed String is: %s\n\n",Yash);
      return 0;
```

DATA STRUCTURE (2CSE302)

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DATA STRUCTURE (2CSE302)