28. Write a C program to create a file using the system call. Read the data from the user and write the same in the file. Also, Read the data from the file and print the same in the console.

Program:- #include <stdio.h>

#include <stdlib.h>

#include <fcntl.h>

#include <unistd.h>

#define BUFFER\_SIZE 100

int main() {

char filename[100];

char data[BUFFER\_SIZE];

printf("Enter the filename: ");

scanf("%s", filename);

// Create a file using system call

int fileDescriptor = open(filename, O\_CREAT | O\_WRONLY | O\_TRUNC, 0644);

if (fileDescriptor == -1) {

printf("Error creating the file.\n");

exit(1);

}

printf("Enter data to write into the file (max %d characters):\n", BUFFER\_SIZE);

scanf(" %[^\n]", data);

// Write the data into the file

if (write(fileDescriptor, data, sizeof(data)) == -1) {

printf("Error writing to the file.\n");

exit(1);

}

// Close the file

close(fileDescriptor);

// Read the data from the file and print it on the console

printf("\nData read from the file:\n");

// Open the file for reading

fileDescriptor = open(filename, O\_RDONLY);

if (fileDescriptor == -1) {

printf("Error opening the file for reading.\n");

exit(1);

}

// Read and print the data

int bytesRead;

while ((bytesRead = read(fileDescriptor, data, sizeof(data))) > 0) {

printf("%.\*s", bytesRead, data);

}

// Close the file

close(fileDescriptor);

return 0;

}

Output:-

