EXPERIMENT-24

Design a C program to demonstrate UNIX system calls for file management.

AIM:-

. To design a C program to demonstrate UNIX system calls for file management such as creating, reading, writing, and closing a file.

ALGORITHM:-

1. **File Creation**:

   - Use the open system call with the O_CREAT flag to create a new file.

2. **Write Data to File**:

   - Use the write system call to write data into the file.

3. **Read Data from File**:

   - Use the read system call to read data from the file.

4. **Close File**:

   - Use the close system call to close the file.

5. **Display Output**:

   - Output the read data to the console.

CODE:-

#include <stdio.h>

#include <fcntl.h>

#include <unistd.h>

#include <string.h>

```c
int main() {

    int fd;

    char writeData[] = "This is a demonstration of UNIX file management system calls.";

    char readData[100];


    // Create or open a file

    fd = open("example.txt", O_CREAT | O_RDWR, 0777);

    if (fd < 0) {

        printf("Error creating/opening file.\n");

        return 1;

    }


    // Write data to the file

    write(fd, writeData, strlen(writeData));


    // Reset the file pointer to the beginning

    lseek(fd, 0, SEEK_SET);


    // Read data from the file

    read(fd, readData, sizeof(readData));


    // Print the data read from the file

    printf("Data read from file: %s\n", readData);
```
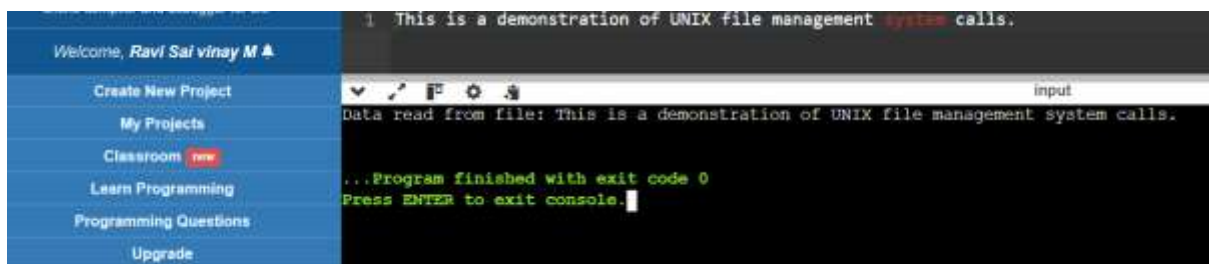
```
// Close the file

close(fd);



return 0;

}
```

OUTPUT:-

RESULT:-

The program successfully demonstrated the use of UNIX system calls for file management, including creating, writing, reading, and closing a file.