**LAB Week 11**

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**Reg#:SP21-BSE-008**

**Exercise 1.**

Write down a few statements to open a file named “First File.txt” in read mode using

1. Absolute path specification
2. Relative path specification

Verify that the file has been successfully opened. If yes, then show some welcome message, otherwise show some error message.

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| **Solution 1:**  **#include <stdio.h>**  **int main()**  **{**  **FILE \* file;**  **if (file = fopen("hello.txt", "r"))**  **{**  **printf("Welcome");**  **}**  **else**  **printf("Error!!!!!!!");**  **fclose(file);**  **return 0;**  **}**  **#include <stdio.h>**  **int main()**  **{**  **FILE \* file;**  **if (file = fopen("E:\\Ch Talha\\hello.txt", "r"))**  **{**  **printf("Welcome");**  **}**  **else**  **printf("Error!!!!!!!");**  **fclose(file);**  **return 0;**  **}** |

**Exercise 2.**

Open the “First File.txt” file in write mode and write three variables in the file, whose values should be read from the user, i.e. user name, gender (a character) and age. For writing the above variables to file, use fprintf method. An example syntax for fprintf method is: fprintf(fptr, “%d %s”, someInt, someString);

Then, use the fputs method to write a thanks message at the end of file. An example syntax for fputs method is fputs(fptr, someString);

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| **Solution 2:**  **#include<stdio.h>**  **#include<string.h>**  **int main()**  **{**  **char user\_name[30];**  **char gender;**  **int age;**  **FILE \*fptr = fopen("First File.txt","w");**  **if(fptr == NULL) {**  **printf("\n Error, Program Terminated.");**  **return 0;**  **}**  **printf("Enter User Name : ");**  **scanf("%[^\n]%\*c",user\_name);**  **printf("Please Enter the gender of user(M:Male or F:Female) : ");**  **scanf("%c",&gender);**  **printf("Please enter the age: ");**  **scanf("%d",&age);**  **fprintf(fptr,"%s %c %d",user\_name,gender,age);**  **fputs("\n Thank you for details\n",fptr);**  **fclose(fptr);**  **return 0;**  **}** |

**Exercise 3.**

Open the “First File.txt” file in read mode and read the three variables written to file in the previous problem. Note that the variables should be read in the same order in which they were written. For reading variables, use fscanf method, whose example syntax is: fscanf(fptr, “%d %s”, &someInt, someString);

After reading the three variables, your program should display a welcome message like “Welcome Mr. Umar in the age of 40.” Or something like “Welcome Ms. Nida in the age of 50.” (Note the use of Mr. and Ms. Depending upon the read gender of the user)

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| **Solution 3:**  **#include <stdio.h>**  **#include <string.h>**  **int main()**  **{**  **FILE \*fptr;**  **char user\_name[30], gender;**  **int age;**  **fptr = fopen("First File.txt", "r");**  **fscanf(fptr, "%s %c %d", user\_name, &gender, &age);**  **if(gender == 'M')**  **{**  **printf(" Welcome Mr. %s in the age of %d\n", user\_name, age);**  **}**  **else if(gender == 'F')**  **{**  **printf(" Welcome Ms. %s in the age of %d\n", user\_name, age);**  **}**  **fclose(fptr);**  **return 0;**  **}** |

**Exercise 4.**

Implement the above program (Problem 23.3) using two functions named OpenFile and ReadAndWelcome. The OpenFile receives a raw FILE pointer and path to the file. It then initializes the pointer using fopen and implements any validation code. On the other hand, the function ReadAndWelcome receives a valid opened File pointer and implements the same stuff as explained in Problem 23.3 (i.e. reading user data and showing a welcome message accordingly)

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| **Solution 4:**  **#include<stdio.h>**  **#include<stdlib.h>**  **FILE \*fptr;**  **void ReadAndWelcome(){**  **char name[30],gender;**  **int age;**  **fscanf(fptr,"%s %c %d",&name,&gender,&age);**  **if(gender=='m')**  **printf("\n Welcome Mr. %s in the age of %d",name,age);**  **else if(gender=='f')**  **printf("Welcome Ms. %s in the age of %d",name,age);**  **fclose(fptr);**  **}**  **void OpenFile(){**  **fptr=fopen("First File.txt","r");**  **if(fptr==NULL)**  **printf("Error");**  **}**  **void main(){**  **OpenFile();**  **ReadAndWelcome();**  **}** |