

ED1021 - Introduction to computation and visualisation

L17 - Linked List

Ramanathan Muthuganapathy (<https://ed.iitm.ac.in/~raman>)

Course web page: <https://ed.iitm.ac.in/~raman/introcomp.html>

Moodle page: Available at <https://courses.iitm.ac.in/>

What are the ways in which we are taking inputs?

Declaration

- `FILE *fileptr;`

Open a file in a correct mode

fopen statement

- `fileptr = fopen("path", "mode");`
- Path - path where the file exists along with the name of the file
- Mode - "w", "r", "a" (writing , reading, appending etc..)

Example

fopen statement

- `fileptr = fopen("path", "mode");`

```
fileptr = fopen("/Users/raman2020/Documents/ED1021Class/Output.txt", "w");
```

```
fileptr = fopen("/Users/raman2020/Documents/ED1021Class/Input.txt", "r");
```

Using files and taking inputs

- Have the name of the file in the same directory while reading
- For writing mode, the file will be created in the directory that you mentioned

NOTE: There will be a default directory if you don't give the path.

Using files and taking inputs/output

- fscanf - for reading from a file
- fprintf - for writing into a file

NOTE: There will be a default directory if you don't give the path.

Code for file input/output

```
int main(int argc, char **argv) {
    FILE *fileptr;
    int i;
    char name[20];
    //Opening a file in writing mode
    fileptr = fopen("/Users/raman2020/Documents/ED1021Class/Ouput.txt", "w");

    fprintf(fileptr, "%d\n", 5);
    fprintf(fileptr, "%s\n", "Ramanathan");

    fclose(fileptr);

    //Reading from a file
    fileptr = fopen("/Users/raman2020/Documents/ED1021Class/Input.txt", "r");
    if (fileptr == NULL) {
        printf("File does not exist in that directory\n");
        exit(1);
    }
    fscanf(fileptr, "%d %s", &i, name);
    printf("i = %d, name = %s\n", i, name);
}
```


Try input/output for a structure

```
//Declaring a structure
struct AccountDetails {
    char name[20];
    int num;
    float bal;
};
typedef struct AccountDetails AD;
```