

Practice Problem

- Write a program that:
 - Defines an integer i that controls a for loop for 5 iterations
 - Defines a float y that is $5*i$
 - Prints the address of the file (the pointer) to the screen
 - Writes to a file using the pointer name "WriteToFile"
 - Saves the file name as "WriteF.txt"
 - For each loop iteration, print the values of i and y to the file (y should have 3 decimal places)
 - For each loop iteration, print the values of i and y to the screen (y should have 3 decimal places)

Open the data file and
compare to your
output screen!

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    double y;
    int i;

    //Create pointer for file
    FILE *WriteToFile;

    //Open file
    WriteToFile = fopen("WriteF.txt", "w");

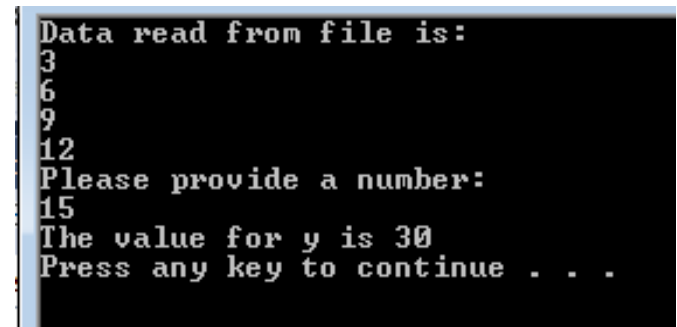
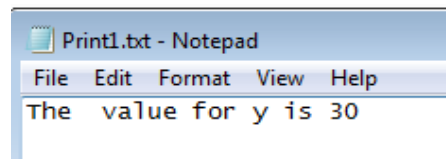
    //Print address of the file to the screen
    printf("Address of the file is %p\n", WriteToFile);

    for (i = 1; i <= 5; i = i + 1)
    {
        y = 5*i;
        printf("%d %.3lf \n", i, y);
        fprintf(WriteToFile, "%d %.3lf \n", i, y);
    }

    //Close file
    fclose(WriteToFile);
}
```

Practice Problem

- Create a file (“data3.txt”) in the appropriate directory. The file should have data as follows:
3
6
9
12
- Create a program that:
 - Reads data from “data3.txt” (use a for loop) and prints the data to the screen
 - Creates a variable $y = 2 * \text{user_num}$, where user_num is a value provided by the user
 - Prints “The value for y is (value)” to a file called “Print1.txt” and also to the screen
 - Your output screen should look like this:



```

#include <stdio.h>
#include <stdlib.h>

int main()
{
    int i, Var3, user_num, y;

    //Pointer for file from which I am reading
    FILE *infile;
    //Pointer for file to which I am printing
    FILE *outfile;

    //Open file to read the data
    infile = fopen("data3.txt", "r");

    //Read data from file and print to screen
    printf("Data read from file is:\n");
    for (i = 1; i <= 4; i++)
    {
        fscanf(infile, "%d", &Var3); //Remember the & to read data
        printf("%d\n", Var3);
    }

    //Close file from which I am reading
    fclose(infile);

    //Ask for user input to create variable user_num
    printf("Please provide a number: \n");
    scanf("%d", &user_num);
    y = 2 * user_num;

    //Open file where I am printing
    outfile = fopen("Print1.txt", "w");

    //Print to screen and file
    printf("The value for y is %d\n", y);
    fprintf(outfile, "The value for y is %d\n", y);

    //Close file to which I am printing
    fclose(outfile);
}

```