

## LAB 6

DUE DATE: Fri October 6 5pm (upload to polylearn)

Names in Group (max 2):

---

---

Write a program in OpenMP t

1. For the Trapezoid rule as we did in class
2. Search for a string into a file, you can base the implementation on your own or base it on this one:

```
int Search_in_File(char *fname, char *str) {
    FILE *fp;
    int line_num = 1;
    int find_result = 0;
    char temp[512];

    if((fp = fopen(fname, "r")) == NULL) {
        return(-1);
    }

    while(fgets(temp, 512, fp) != NULL) {
        if((strstr(temp, str)) != NULL) {
            printf("A match found on line: %d\n",
line_num);
            printf("\n%s\n", temp);
            find_result++;
        }
        line_num++;
    }

    if(find_result == 0) {
        printf("\nSorry, couldn't find a match.\n");
    }

    //Close the file if still open.
    if(fp) {
        fclose(fp);
    }
    return(0);
}
```

--	--

## What to turn in

Upload a report in PDF with the following:

1. Your name
2. Explanation of the pragmas you are using and where you are placing them
3. Prove that the code is correct by printing the difference in values between the non parallel and parallel version
4. Table with execution times

code	Cpu Execution time No threads	CPU 4 threads execution time	8 threads	12 threads
Trapezoid				
Searchj				

5. Appendix with your code, just the two kernel functions (non-shared and shared), clean and properly commented (I may ask for a demo of your code working on the computer labs if I don't understand how your code is able to run).