

מערכות הפעלה – מטלה 1

קבצים והרצת תהליכים

מטרה:

תוכנית הנותנת ציונים לתוכניות סטודנטים ומדפיסה את התוצאות.

התוכנית מבצעת:

-קומפילציה לתוכניות סטודנטים.

-הרצה של תוכניות הסטודנטים עם קלט נתון.

-בודקת האם הפלט שהתקבל מתוכנית הסטודנט תקין(ע"י השוואה עם פלט תקין ידוע מראש באמצעות התוכנית comp.out).

-סטודנט שקיבל פלט תקין יקבל את הציון 2.

-סטודנט שקיבל פלט לא תקין/לא עבר קומפילציה בהצלחה יקבל את הציון 1.

התוכנית מדפיסה בזמן ריצה את:

-הצלחה/כישלון של פתיחת קובץ הקונפיגורציה ומה

-תיקיית הסטודנט שנפתחה.

-שם תוכנית הסטודנט לפני קומפילציה(שם התוכנית צריך להיות זהה לשם הסטודנט).

-האם הקומפילציה של התוכנית הצליחה/נכשלה.

-הדפסת נתיב קובץ ההרצה במידה ונוצר.

-האם הדפסת פלט תוכנית הסטודנט לקובץ זמני הצליחה/נכשלה.

-ציון הסטודנט.

-ציון כל סטודנט ושמו יכתבו לקובץ results.csv ובסיום התוכנית קובץ זה יודפס למסך-

הרצה לפי קובץ ה-M1 Readme.txt:

התוכנית comp.c ו-2.c EX1 עוברת קומפילציה בהצלחה וללא שגיאות:

olman.ac.il:22 - Bitwise xterm

```
$ gcc comp.c -o comp.out
$ gcc EX1_2.c -o a.out
$
```

```
davidmanshari@com3:~/prog$ ./a.out /home/davidmanshari/prog/setup/config.txt.txt
Reading Config File successfully:
/home/davidmanshari/prog/students
/home/davidmanshari/prog/setup/test_input.qa
/home/davidmanshari/prog/setup/expected_output.qa

Directory /home/davidmanshari/prog/students opened successfully:

Directory /home/davidmanshari/prog/students/Yael opened successfully:
C File Yael.c Found at: /home/davidmanshari/prog/students/Yael/Yael.c ,Student:Yael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Yael/main.out
Student program output is written into program_output.txt
Yael,1 has been written to result.csv


Directory /home/davidmanshari/prog/students/Michael opened successfully:
C File Michael.c Found at: /home/davidmanshari/prog/students/Michael/Michael.c ,Student:Michael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Michael/main.out
Student program output is written into program_output.txt
Michael,1 has been written to result.csv


Directory /home/davidmanshari/prog/students/Joe opened successfully:
C File Joe.c Found at: /home/davidmanshari/prog/students/Joe/Joe.c ,Student:Joe
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Joe/main.out
Student program output is written into program_output.txt
Joe,1 has been written to result.csv


Directory /home/davidmanshari/prog/students/David opened successfully:
C File David.c Found at: /home/davidmanshari/prog/students/David/David.c ,Student:David
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/David/main.out
Student program output is written into program_output.txt
David,1 has been written to result.csv


Printing results.csv File:
Yael,1
Michael,1
Joe,1
David,1

davidmanshari@com3:~/prog$
```

מסמך ה-result.csv שנוצר:

	A
1	Yael
1	Michael
1	Joe
1	David

הסיבה לכך: תוכניות

הסטודנטים לא הדפיסו את המספרים שהוכנסו כקלט.

הרצות נוספות לדוגמא:

*בהרצות אלו תוכניות הסטודנטים שונות מאלו הנמצאות ב-M1 Readme.txt.

מקרה א': כל הסטודנטים עברו בהצלחה.

```

davidmanshari@com3:~/prog$ ./a.out /home/davidmanshari/prog/setup/config.txt

Reading Config File successfully:
/home/davidmanshari/prog/students
/home/davidmanshari/prog/setup/test_input.qa
/home/davidmanshari/prog/setup/expected_output.qa

Directory /home/davidmanshari/prog/students opened successfully:

Directory /home/davidmanshari/prog/students/Yael opened successfully:
C File Yael.c Found at: /home/davidmanshari/prog/students/Yael/Yael.c ,Student:Yael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Yael/main.out
Student program output is written into program_output.txt
Yael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Michael opened successfully:
C File Michael.c Found at: /home/davidmanshari/prog/students/Michael/Michael.c ,Student:Michael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Michael/main.out
Student program output is written into program_output.txt
Michael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Joe opened successfully:
C File Joe.c Found at: /home/davidmanshari/prog/students/Joe/Joe.c ,Student:Joe
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Joe/main.out
Student program output is written into program_output.txt
Joe,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/David opened successfully:
C File David.c Found at: /home/davidmanshari/prog/students/David/David.c ,Student:David
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/David/main.out
Student program output is written into program_output.txt
David,2 has been written to result.csv

Printing results.csv File:
Yael,2
Michael,2
Joe,2
David,2
davidmanshari@com3:~/prog$
```

מסמך ה-result.csv שנוצר:

B	A	
2	Yael	1
2	Michael	2
2	Joe	3
2	David	4
		5

מקרה ב': לסטודנט Joe יש שגיאה לוגית בקוד.

```
davidmanshari@com3.cs.colman.ac.il:22 - Bitwise xterm
davidmanshari@com3:~/prog$ ./a.out /home/davidmanshari/prog/setup/config.txt

Reading Config File successfully:
/home/davidmanshari/prog/students
/home/davidmanshari/prog/setup/test_input.qa
/home/davidmanshari/prog/setup/expected_output.qa

Directory /home/davidmanshari/prog/students opened successfully:

Directory /home/davidmanshari/prog/students/Yael opened successfully:
C File Yael.c Found at: /home/davidmanshari/prog/students/Yael/Yael.c ,Student:Yael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Yael/main.out
Student program output is written into program_output.txt
Yael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Michael opened successfully:
C File Michael.c Found at: /home/davidmanshari/prog/students/Michael/Michael.c ,Student:Michael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Michael/main.out
Student program output is written into program_output.txt
Michael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Joe opened successfully:
C File Joe.c Found at: /home/davidmanshari/prog/students/Joe/Joe.c ,Student:Joe
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Joe/main.out
Student program output is written into program_output.txt
Joe,1 has been written to result.csv

Directory /home/davidmanshari/prog/students/David opened successfully:
C File David.c Found at: /home/davidmanshari/prog/students/David/David.c ,Student:David
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/David/main.out
Student program output is written into program_output.txt
David,2 has been written to result.csv

Printing results.csv File:
Yael,2
Michael,2
Joe,1
David,2

davidmanshari@com3:~/prog$
```

מסמך
ה-result.csv
שנוצר:

B	A
2	Yael
2	Michael
1	Joe
2	David

מקרה ג': לסטודנט Joe יש שגיאת קומפילציה.

```

davidmanshari@com3.cs.colman.ac.il:22 - Bitwise xterm
davidmanshari@com3:~/prog$ ./a.out /home/davidmanshari/prog/setup/config.txt

Reading Config File successfully:
/home/davidmanshari/prog/students
/home/davidmanshari/prog/setup/test_input.qa
/home/davidmanshari/prog/setup/expected_output.qa

Directory /home/davidmanshari/prog/students opened successfully:

Directory /home/davidmanshari/prog/students/Yael opened successfully:
C File Yael.c Found at: /home/davidmanshari/prog/students/Yael/Yael.c ,Student:Yael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Yael/main.out
Student program output is written into program_output.txt
Yael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Michael opened successfully:
C File Michael.c Found at: /home/davidmanshari/prog/students/Michael/Michael.c ,Student:Michael
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/Michael/main.out
Student program output is written into program_output.txt
Michael,2 has been written to result.csv

Directory /home/davidmanshari/prog/students/Joe opened successfully:
C File Joe.c Found at: /home/davidmanshari/prog/students/Joe/Joe.c ,Student:Joe
/home/davidmanshari/prog/students/Joe/Joe.c: In function 'main':
/home/davidmanshari/prog/students/Joe/Joe.c:10:2: error: expected declaration or statement at end of input
    return 0;
    ^~~~~~
ERROR: COMPILE FAILED!
Joe,1 has been written to result.csv

Directory /home/davidmanshari/prog/students/David opened successfully:
C File David.c Found at: /home/davidmanshari/prog/students/David/David.c ,Student:David
COMPILED SUCCESSFULLY :)
main.out Path: /home/davidmanshari/prog/students/David/main.out
Student program output is written into program_output.txt
David,2 has been written to result.csv

Printing results.csv File:
Yael,2
Michael,2
Joe,1
David,2
```

מסמך
ה-result.csv
שנוצר:

B	A
2	Yael
2	Michael
1	Joe
2	David