```
Compiling...
--------------------------------------------
Running the tests....
============================================================
Enter the size of the array:5
enter 5 elements of the array:1 2 3 4 5
1 2 3 4 5 ============================================================
=
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
--------------------------------------------
Cleaning...
--------------------------------------------
Compiling...
--------------------------------------------
Running the tests....
============================================================
Enter the size of the array:6
enter 6 elements of the array:1 24 52 64 0 3
The min value is :0


============================================================
Completed tests....
bariserengezici@Bars-MacBook-Pro 210104004041 %
```

```
Average GPA of 10.000 x 10.000 students: 1.988828
========================================================================
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
------------------------------------------------
Cleaning...
------------------------------------------------
Compiling...
------------------------------------------------
Running the tests....
========================================================================
Average GPA of 10.000 x 10.000 students: 1.97
========================================================================
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
------------------------------------------------
Cleaning...
------------------------------------------------
Compiling...
------------------------------------------------
Running the tests....
========================================================================
Average GPA of 10.000 x 10.000 students: 1.99
========================================================================
```

```
                                                        */



eof(int));








%d ",sec_array[i]
```

```
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
------------------------------------------------
Cleaning...
------------------------------------------------
Compiling...
------------------------------------------------
Running the tests....
================================================================
Enter the size of the array:5
enter 5 elements of the array:1 2 3 4 5
first array:1 2 3 4 5

second array:1 3 6 10 15 ===========================================
================
Completed tests....
bariserengezici@Bars-MacBook-Pro 210104004041 % █
```

```c
float part3(){

    Student *stu_array= (Student* )malloc(10000* sizeof(Stud

    float avg=0;


    int temp;
    float temp_gpa;
    for (int i = 0; i < 10000; i++)
    {
        temp= rand() % 10000; //random id
        stu_array[i].ID=temp;

        temp= rand() % 100; //random age max 99 :D
        stu_array[i].age=temp;

        temp_gpa= rand() % 4;    //before the comma
        temp_gpa= temp_gpa + (rand() % 100)*0.01; //after th

        stu_array[i].gpa=temp_gpa;

        //printf("id:%d  age:%d  gpa:%.3f \n",stu_array[i].ID,stu_array[i].age,stu_array[i].gpa);
    }


    float sum=0;
    for (int a = 0; a < 10000; a++) sum= sum+ stu_array[a].gpa;


    avg= sum/10000;



    free(stu_array);
    return  avg;
```

```
===========================================================
Average GPA of 10.000 x 10.000 students: 2.00
-----------------------------------------------------------
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
-----------------------------------------------------------
Cleaning...
-----------------------------------------------------------
Compiling...
-----------------------------------------------------------
Running the tests....
===========================================================
Average GPA of 10.000 x 10.000 students: 1.99
===========================================================
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
-----------------------------------------------------------
Cleaning...
-----------------------------------------------------------
Compiling...
-----------------------------------------------------------
Running the tests....
===========================================================
Average GPA of 10.000 x 10.000 students: 2.00
```

Ekran Resmi

```c
        sum=sum+array[i];
        sec_array[i]=sum;
}


printf("\n\nsecond array:");
for (int i = 0; i < size; i++) printf("%d ",sec_array[i]

free(sec_array);
free(array);*/


srand(time(NULL));


float avg_gpa;


float all_sums=0;
for (int i = 0; i < 10000; i++)
{
    avg_gpa=part3();
    all_sums= all_sums+ avg_gpa;
}


float final_avg;
final_avg=all_sums/10000;


printf("Average GPA of 10.000 x 10.000 students: %.8f\n",final_avg);



    return 0;
}

float part3(){
```

Ekran Resmi

```c
        sum=sum+array[i];
        sec_array[i]=sum;
    }


    printf("\n\nsecond array:");
    for (int i = 0; i < size; i++) printf("%d ",sec_array[i]

    free(sec_array);
    free(array);*/


    srand(time(NULL));


    float avg_gpa;


    float all_sums=0;
    for (int i = 0; i < 10000; i++)
    {
        avg_gpa=part3();
        all_sums= all_sums+ avg_gpa;
    }


    float final_avg;
    final_avg=all_sums/10000;


    printf("Average GPA of 10.000 x 10.000 students: %.8f\n",final_avg);



    return 0;
}

float part3(){
```

Terminal — 210104004041 — -zsh — 80×24

```
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
------------------------------------------------------
Cleaning...
------------------------------------------------------
Compiling...
------------------------------------------------------
Running the tests....
======================================================
Average GPA of 10.000 x 10.000 students: 1.99489903
======================================================
Completed tests....
[bariserengezici@Bars-MacBook-Pro 210104004041 % make
------------------------------------------------------
Cleaning...
------------------------------------------------------
Compiling...
------------------------------------------------------
Running the tests....
======================================================
Average GPA of 10.000 x 10.000 students: 1.99493825
======================================================
Completed tests....
bariserengezici@Bars-MacBook-Pro 210104004041 %
```

Ekran Resmi

```
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make run
-------------------------------------
Running the tests....
============================================================
Enter the size of the array:8
enter 8 elements of the array:1 42 53 75 12 9 52215 63
The min value is :1


============================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make
-------------------------------------
Cleaning...
-------------------------------------
Compiling...
-------------------------------------
Running the tests....
============================================================
Enter the size of the array:6
enter 6 elements of the array:2 4 6 8 10 12




PART2*****



first array:2 4 6 8 10 12


second array:2 6 12 20 30 42 ======================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$
```

value is

PART2***
(int *)c

ay:");
i < size
,array[i
y[i];
=sum;

nd array
i < size

);

< 1000

B();

```
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make run
--------------------------------------------
Running the tests....
================================================================
Average GPA of 10.000 x 10.000 students: 1.99495959
================================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make
--------------------------------------------
Cleaning...
--------------------------------------------
Compiling...
--------------------------------------------
Running the tests....
================================================================
Enter the size of the array:5
enter 5 elements of the array:1 2 3 4 5
The min value is :1

================================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make run
--------------------------------------------
Running the tests....
================================================================
Enter the size of the array:8
enter 8 elements of the array:1 42 53 75 12 9 52215 63
The min value is :1

================================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$
```

```
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make
------------------------------------------------
Cleaning...
------------------------------------------------
Compiling...
------------------------------------------------
Running the tests....
================================================
Average GPA of 10.000 x 10.000 students: 1.99502146
================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$ make run
------------------------------------------------
Running the tests....
================================================
Average GPA of 10.000 x 10.000 students: 1.99495959
================================================
Completed tests....
baris@baris-VirtualBox:~/Desktop/New Folder/210104004041/210104004041$
```