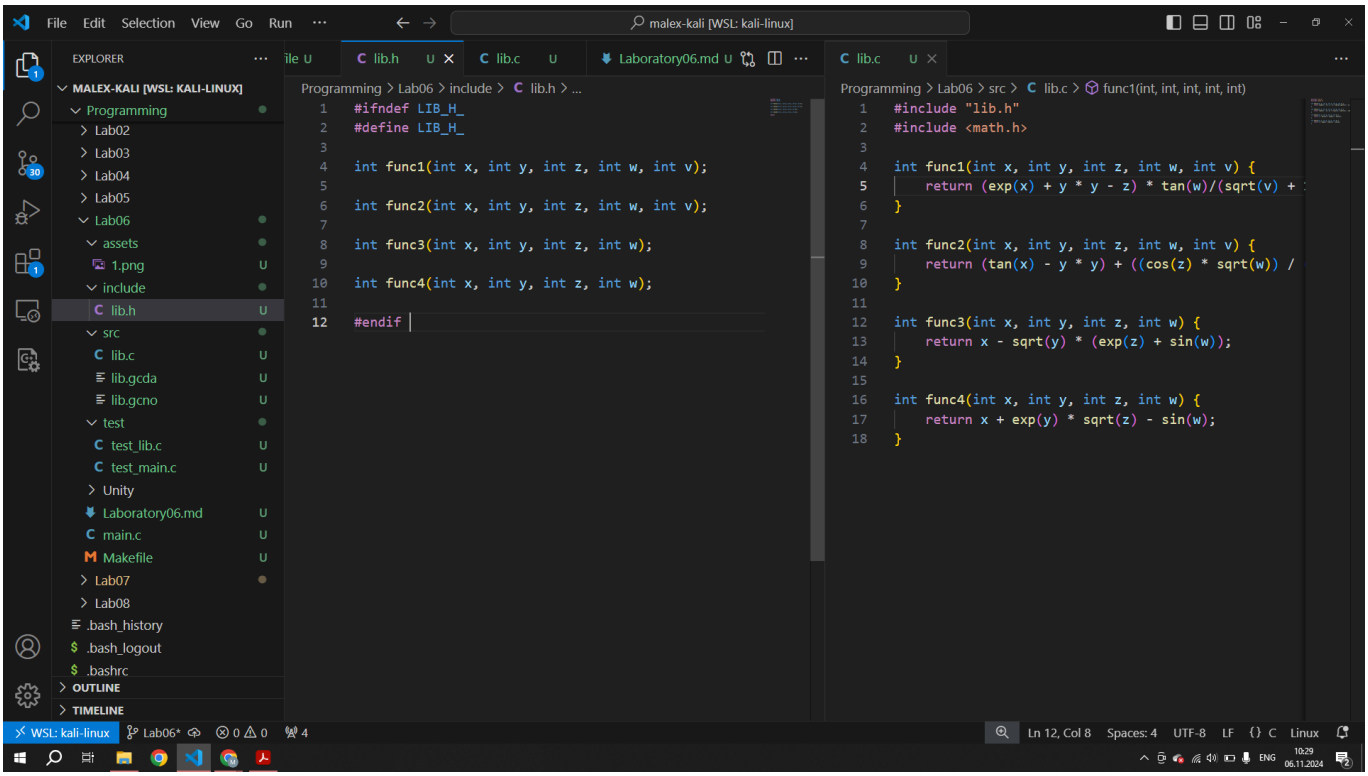
Report 6

Unity test

In this laboratory work I created a library, which was able to perform 4 different operations in different functions. For them also were created unity-based test.

It has such structure

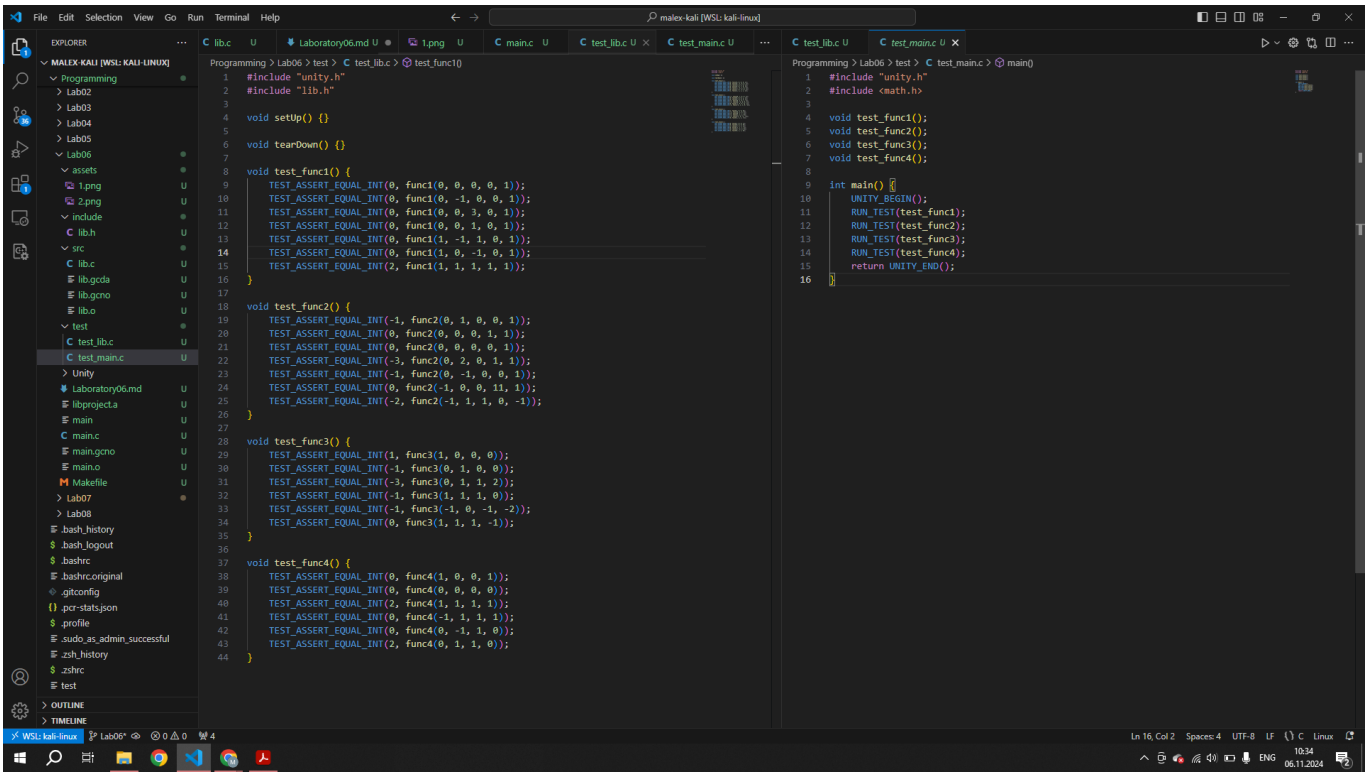
Firstly I created lib.h and lib.c files, where my library operations were described, and Makefile, which code I took from pdf-task file. After I created main.c file, which will be used in future as functions usage example



Output of my programm on this syep is such:

```
┌──(malex-kali㉿MA)-[~/Programming/Lab06]
└─$ make all gcc -Wall -Iinclude -IUnity/src -fprofile-arcs -ftest-coverage -c main.c
gcc -Wall -Iinclude -IUnity/src -fprofile-arcs -ftest-coverage -c src/lib.c -o src/lib.o
ar rcs libproject.a src/lib.o
gcc -Wall -Iinclude -IUnity/src -fprofile-arcs -ftest-coverage -o main main.o libproject.a -L. -
fprofile-arcs -ftest-coverage -lm
```

Then I uploaded Unity folder, which is obligatory for tests making and started tests creating in test_lib.c and test_main.c files. My tests try different values, which makes possible failures find.



The output of my tests is the next

```
┌──(malex-kali㉿MA)-[~/Programming/Lab06]
└─$ make test
gcc -Wall -Iinclude -IUnity/src -fprofile-arcs -ftest-coverage -c src/lib.c -o src/lib.o
ar rcs libproject.a src/lib.o
gcc -Wall -Iinclude -IUnity/src -fprofile-arcs -ftest-coverage -o run_tests Unity/src/unity.c
test/test_lib.c test/test_main.c -L. -lproject -L. -fprofile-arcs -ftest-coverage -lm ./run_tests
test/test_main.c:11:test_func1:PASS test/test_main.c:12:test_func2:PASS
test/test_main.c:13:test_func3:PASS test/test_main.c:14:test_func4:PASS

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4 Tests 0 Failures 0 Ignored
OK
```

So this output mean, that my functions and tests are working correctly

On the last step I also modefied main.c fail, so now it use akk fout functions from library.

Programming > Lab06 > C main.c > main(int, char const * [])

```c
#include <stdio.h>
#include "lib.h"

int main(int argc, char const *argv[]) {
int res1 = func1(1,1,1,1,1);
printf("Func 1 result is %d \n", res1);
int res2 = func2(0,1,0,0,1);
printf("Func 2 result is %d \n", res2);
int res3 = func3(1,0,0,0);
printf("Func 3 result is %d \n", res3);
int res4 = func4(1,1,1,1);
printf("Func 4 result is %d \n", res4);
// Example call to a library function , replace with
return 0;
}
```

As a coclusion I can say, that my library works now andd it is possible to use it in other programms.