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西交利物浦大学

Lab 1

Getting Started

Hello World!

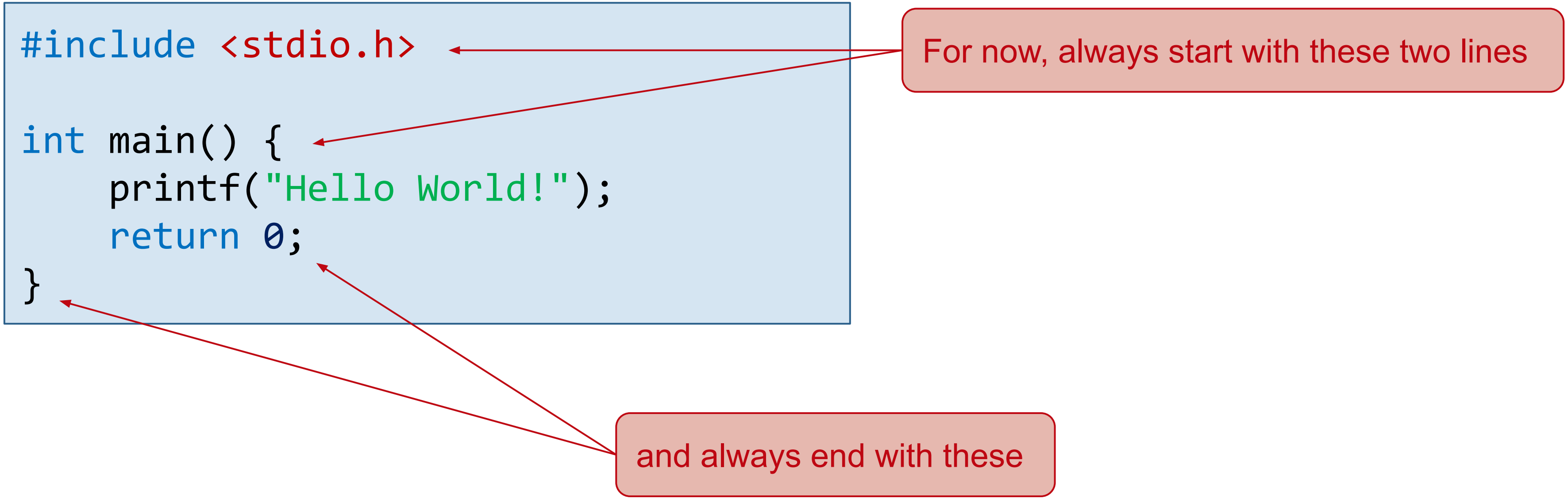
- Our first program

```c
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}
```

Our first C code is to simply print a string Hello World! in the screen

Hello World!

- Our first program



```c
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}
```

For now, always start with these two lines

and always end with these

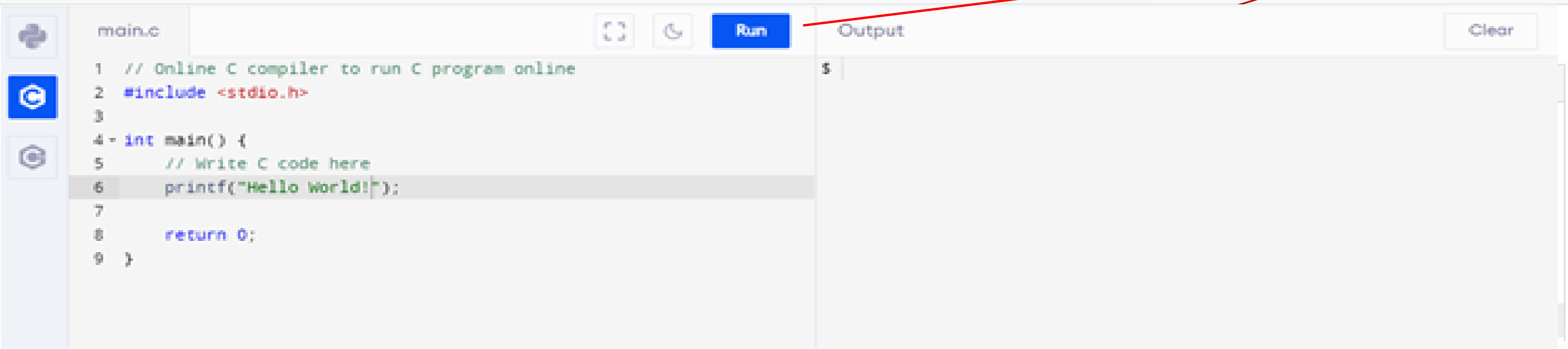
Our First Lab Example (1)

1. Use Firefox/Chrome, go to https://codecast.france-ioi.org/v6/
2. Type the code

```c
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}
```

3. Click compile

this button

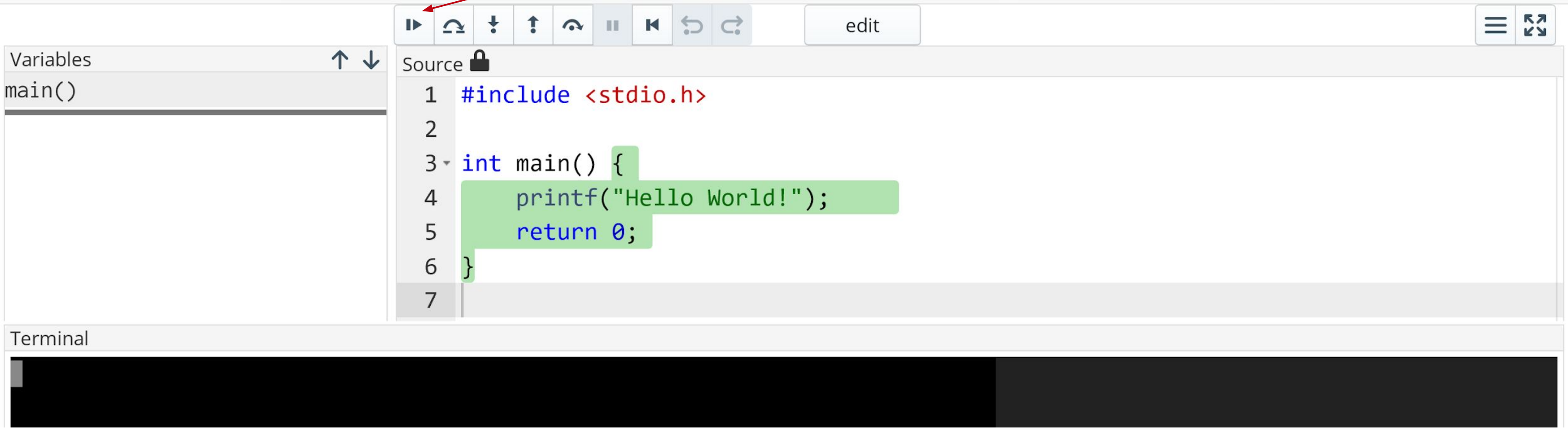


```c
// Online C compiler to run C program online
#include <stdio.h>

int main() {
    // Write C code here
    printf("Hello World!");

    return 0;
}
```

Our First Lab Example (2)

4. If the code compiles (no errors), run the program

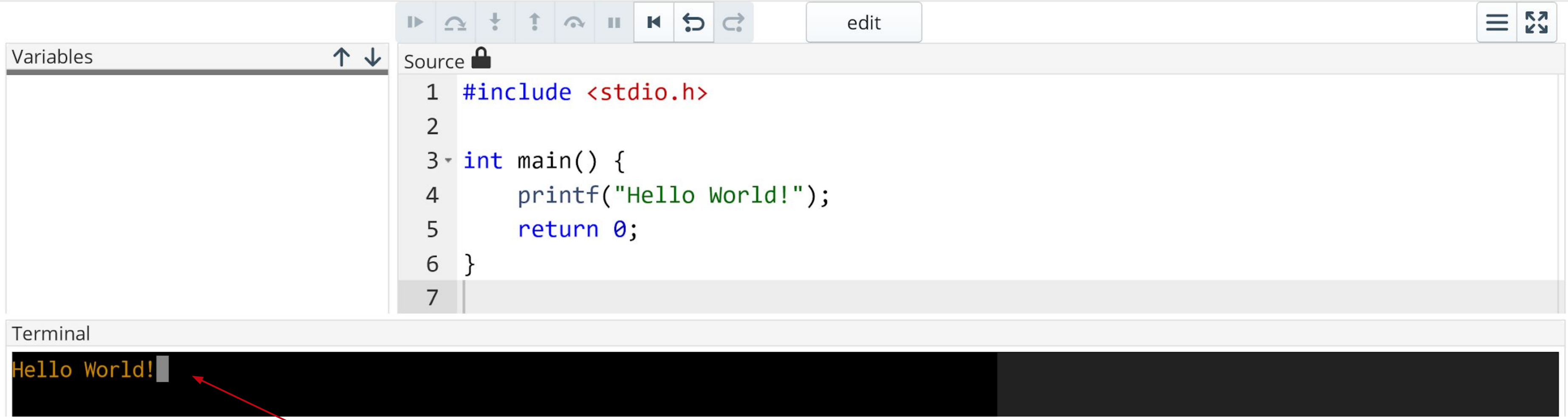
click this run button



```
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}
```

Our First Lab Example (3)

5. The program runs and prints in the console/terminal



```c
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}

```

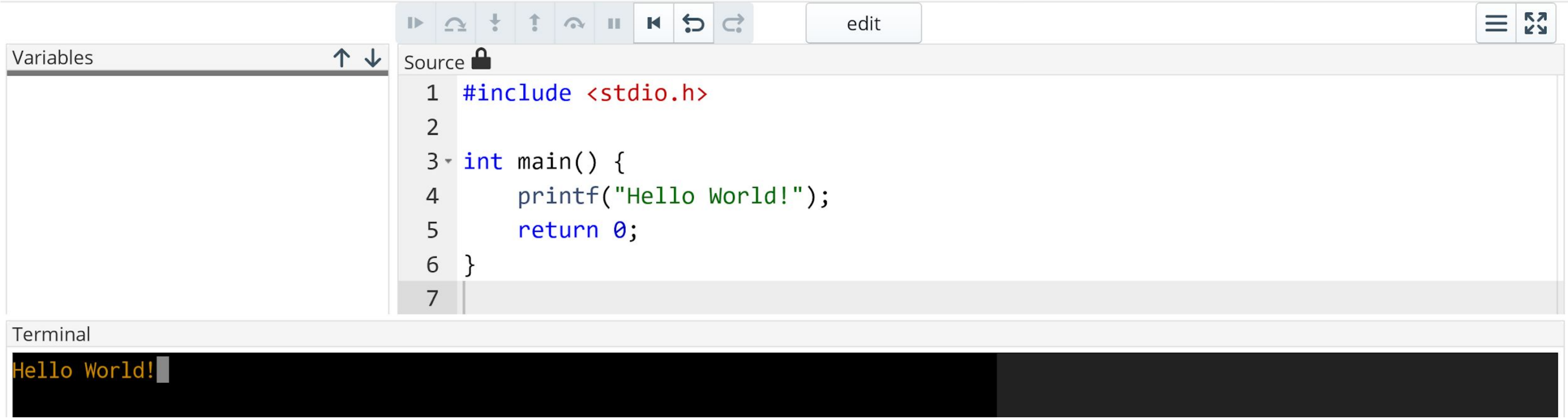
```
Hello World!
```

The string in printf is printed here

Our First Lab Example (4)

6. Click edit if you want to continue write and debug your C code

this button



```
#include <stdio.h>

int main() {
    printf("Hello World!");
    return 0;
}
```

```
Hello World!
```

From now on, you will **write** and **test** your code using this **Codecast** !

The First Lab Exercise

- We now continue with the Lab Exercise
- Just like the Lab Example, you will use Codecast to write and test your code
- However, since it is graded, you will also need to submit your code using the **LMO VPL.**

- In the next slide, you will see the Lab Exercise
- Lab Exercise slides will consist of
  - Description of the problem
  - One or more test cases
  - Hints and skeleton code (optional)

- After that, we will guide you to solve and submit the Lab Exercise

Exercise Learning C in Linux

- Complete the code to print in 2 lines:

```
Hello World!
I'm learning "C in Linux" coding
```

  - Hint: Use the escape sequence \" and new line character \n

- Skeleton code:

```
#include <stdio.h>

int main() {


    return 0;
}
```

Our First Lab Exercise (1)

1. Use Firefox/Chrome, open Codecast in https://codecast.france-ioi.org/v6/
2. Copy paste the skeleton code and complete the code in Codecast using `printf`
   - use the **escape sequence** `\"` in the string to print the double quote
   - use the **new line character** `\n` in the string to change line
   - IMPORTANT: from now on, always ends the last printf with \n
   - for example:

     ```
     printf("Always end last \"printf\" with a newline\n");
     ```

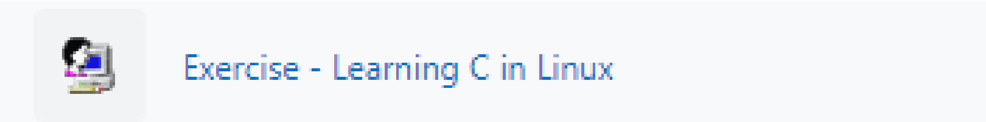
     the LMO VPL

   - otherwise, the ICE VPL grader will mark your code incorrect !

Our First Lab Exercise (2)

3. Continue write, test, edit your code in Codecast until it displays the correct 2 lines as specified in the Lab Exercise description

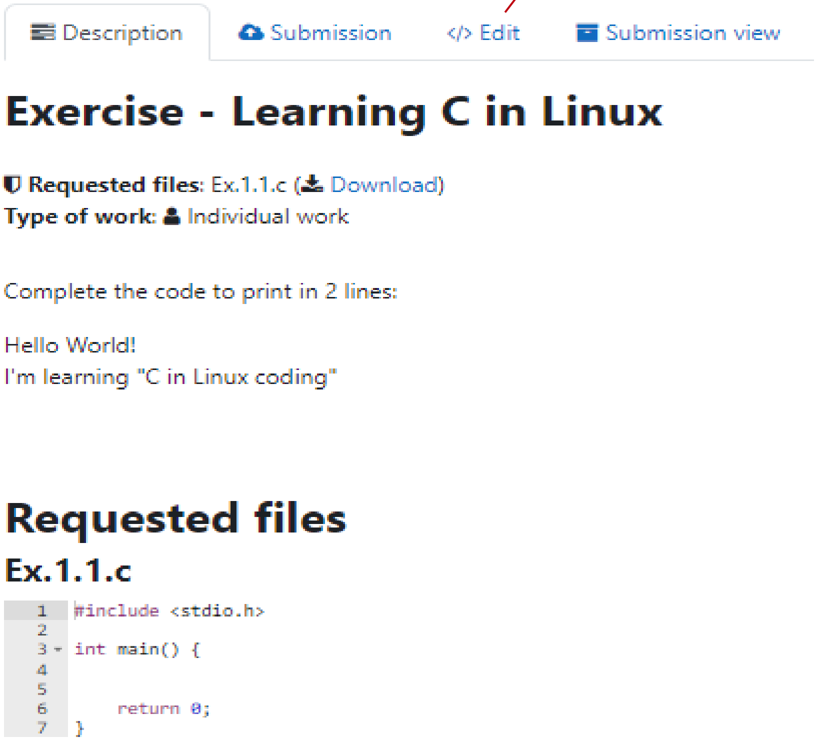
4. After you are satisfied with your code, go to **LMO** and click **LMO** VPL Lab Exercise below



Exercise - Learning C in Linux

Our First Lab Exercise (3)

5. You will see the following screen, click Edit



Exercise - Learning C in Linux

Requested files: Ex.1.1.c (Download)
Type of work: Individual work

Complete the code to print in 2 lines:

Hello World!
I'm learning "C in Linux coding"

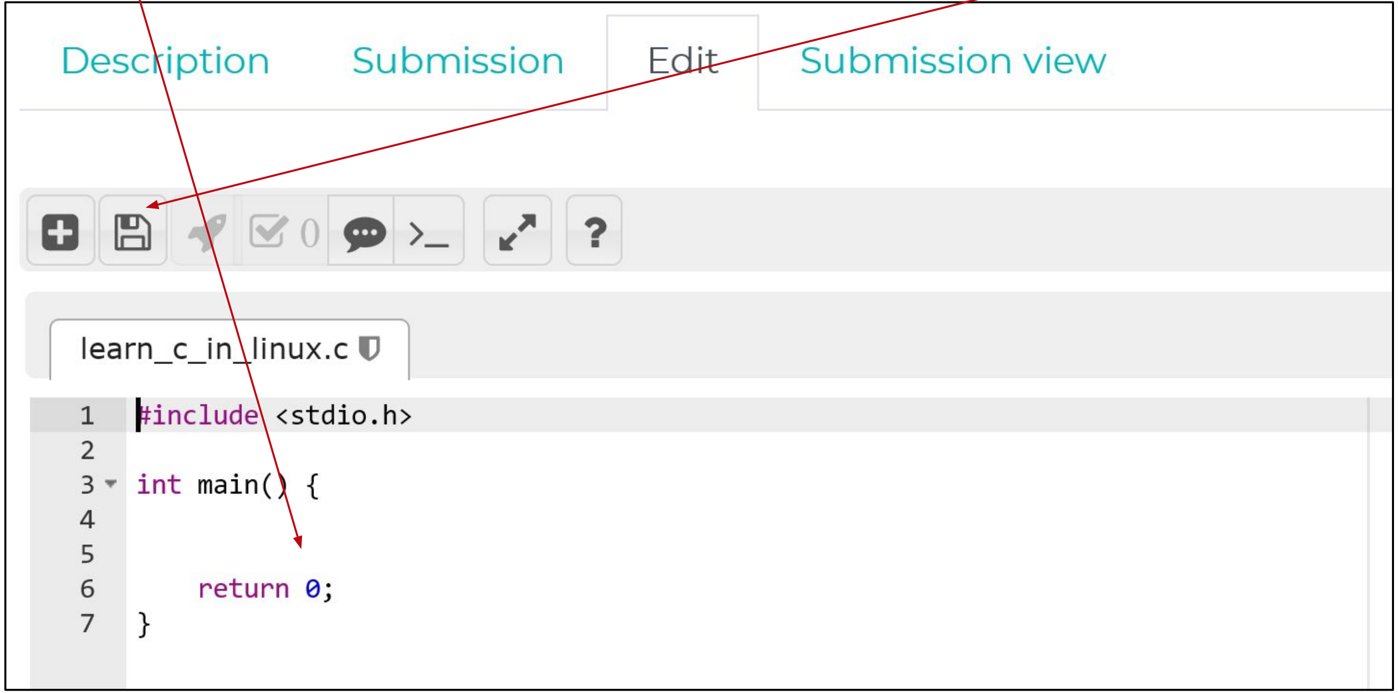
Requested files

Ex.1.1.c

```
#include <stdio.h>

int main() {


    return 0;
}
```

Our First Lab Exercise (4)

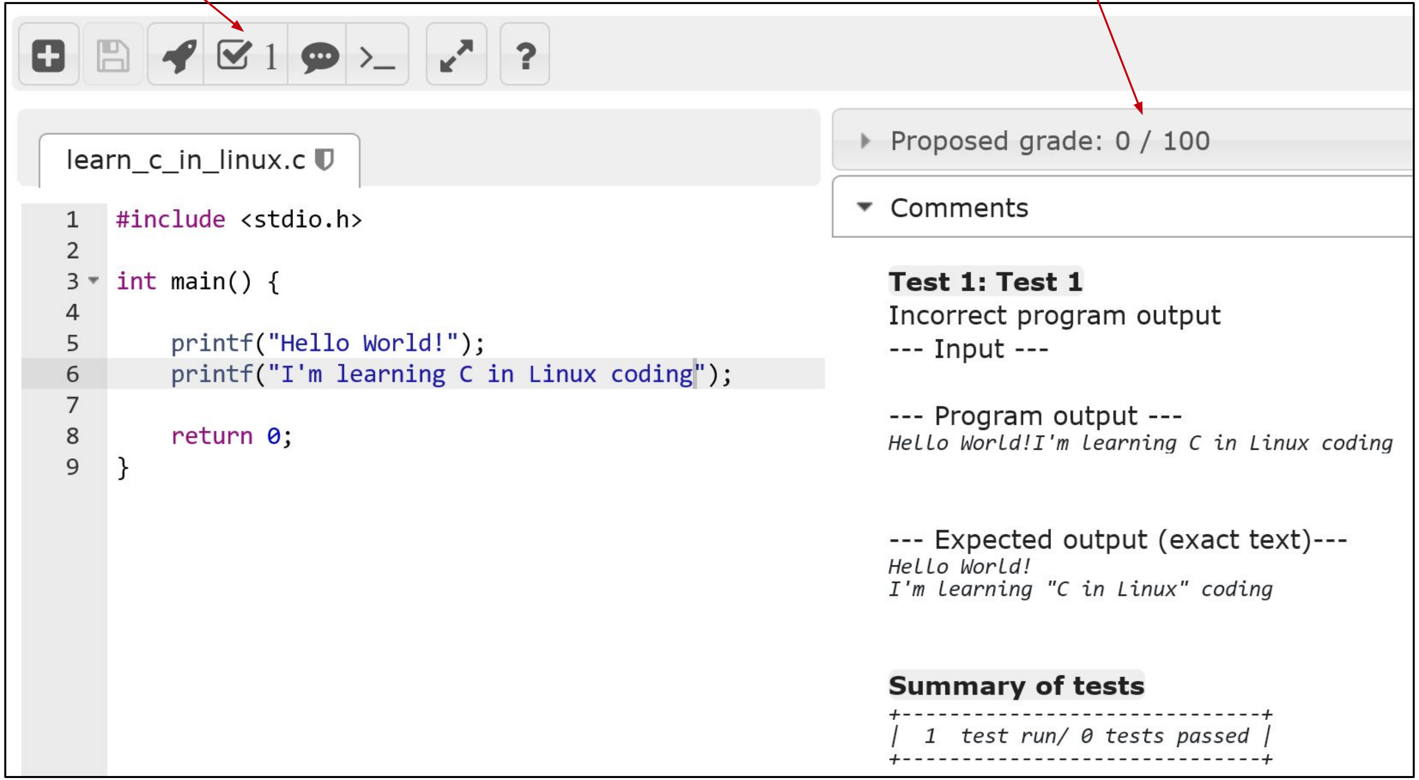
6. Copy Paste your code from Codecast, and then click Save



```
#include <stdio.h>

int main() {


    return 0;
}
```

Our First Lab Exercise (5)

7. Click Evaluate and then you will see the following result if you made mistake



```c
#include <stdio.h>

int main() {

    printf("Hello World!");
    printf("I'm learning C in Linux coding");

    return 0;
}
```

Proposed grade: 0 / 100

Comments

Test 1: Test 1

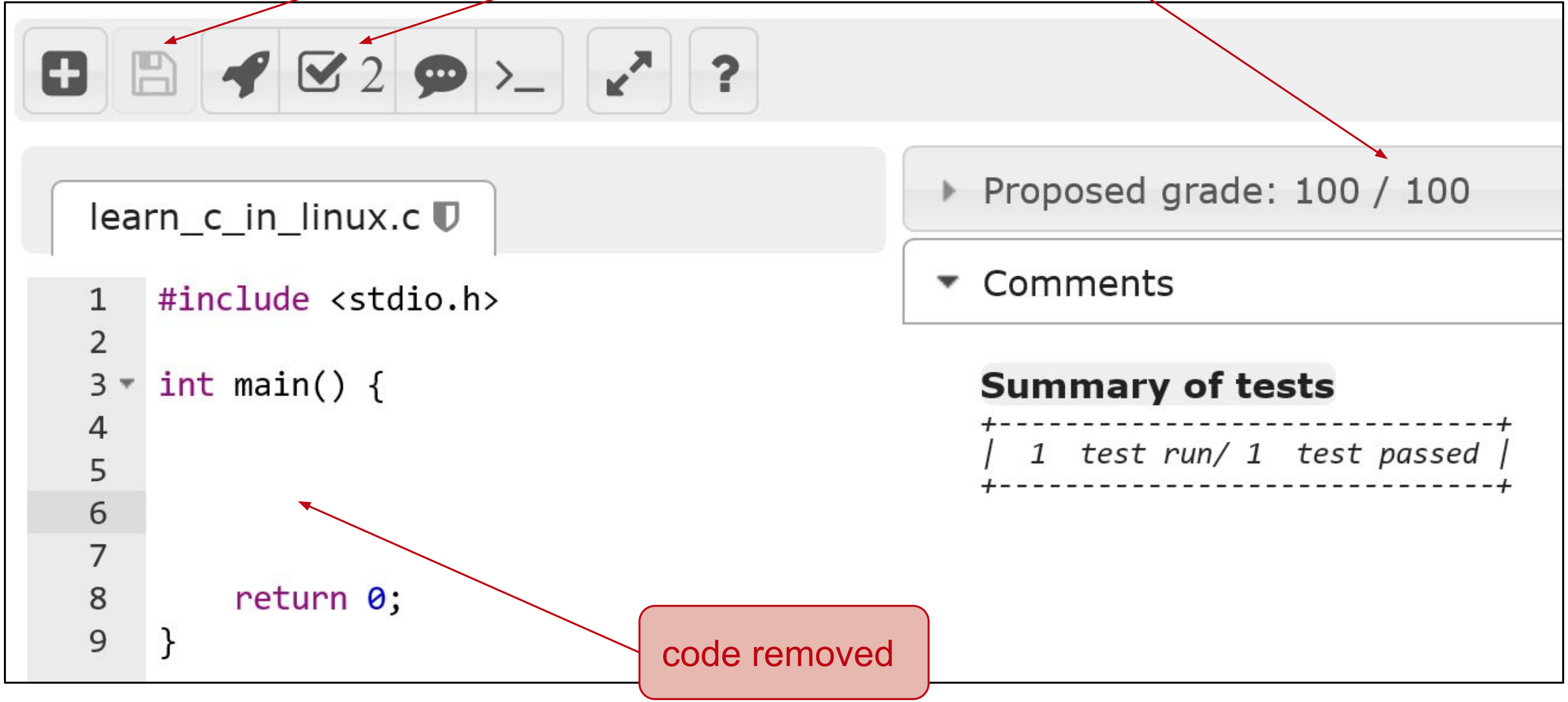
```
Incorrect program output
--- Input ---


--- Program output ---
Hello World!I'm learning C in Linux coding



--- Expected output (exact text)---
Hello World!
I'm learning "C in Linux" coding
```

Summary of tests

```
+------------------------------+
|  1  test run/ 0 tests passed |
+------------------------------+
```

Our First Lab Exercise (6)

8. You can go back to code, debug, and test again in Codecast, and return to **LMO** VPL, Copy Paste, Save, Evaluate again; you get 100 if you pass all test cases



```
#include <stdio.h>

int main() {




    return 0;
}
```

Proposed grade: 100 / 100

Comments

Summary of tests

```
+------------------------------+
|  1  test run/ 1  test passed |
+------------------------------+
```

code removed