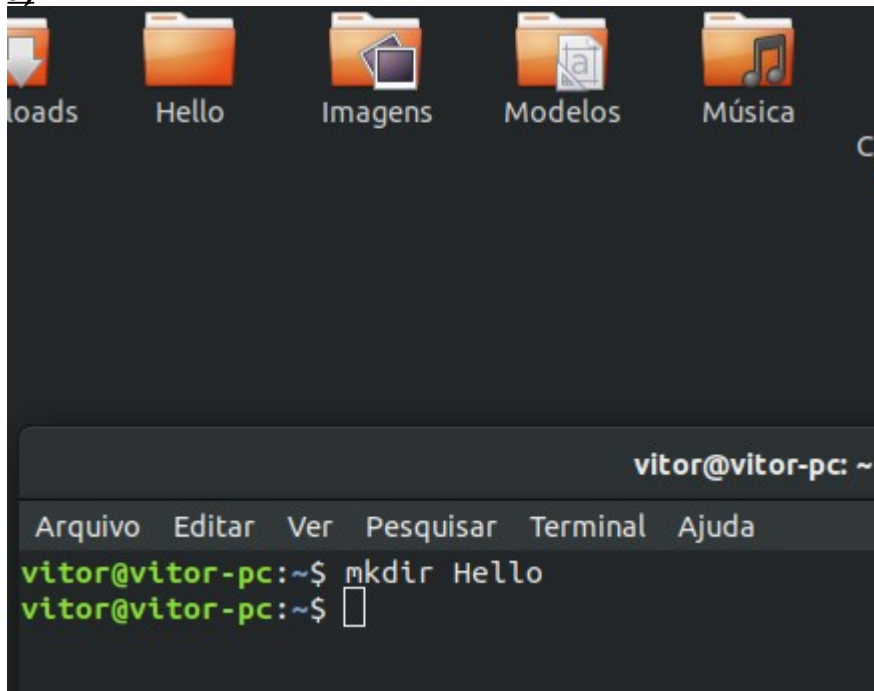
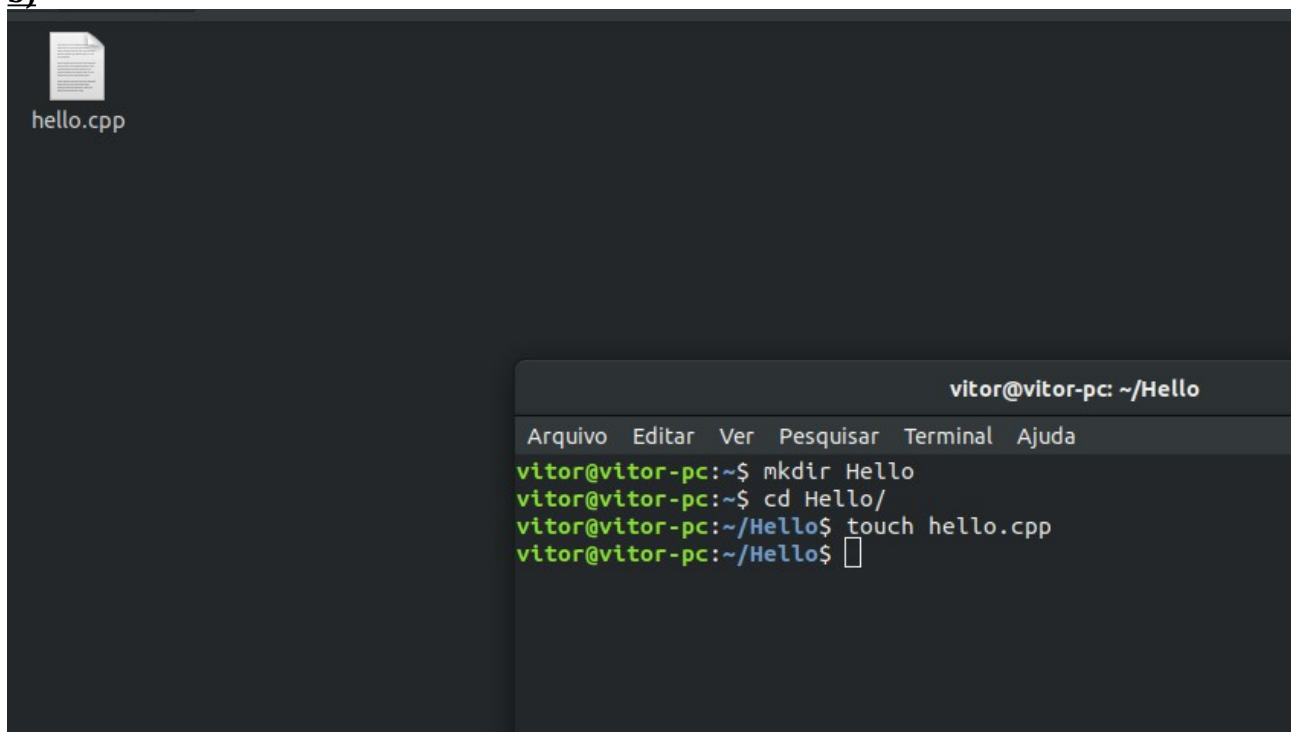


Laboratório 02

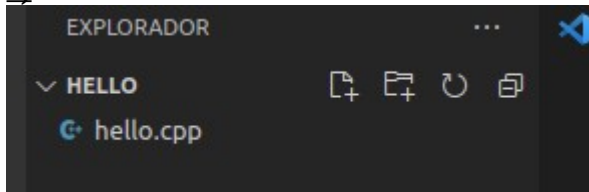
a)



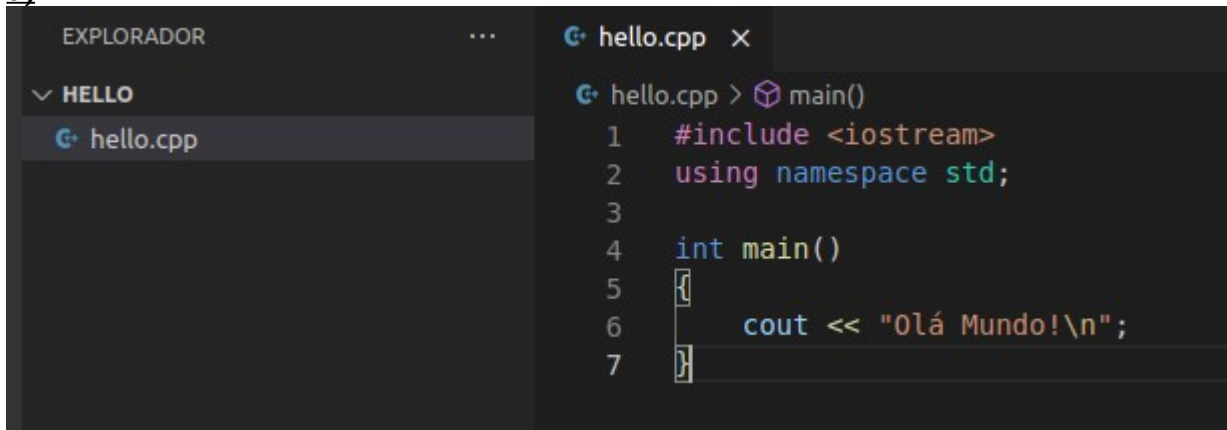
b)



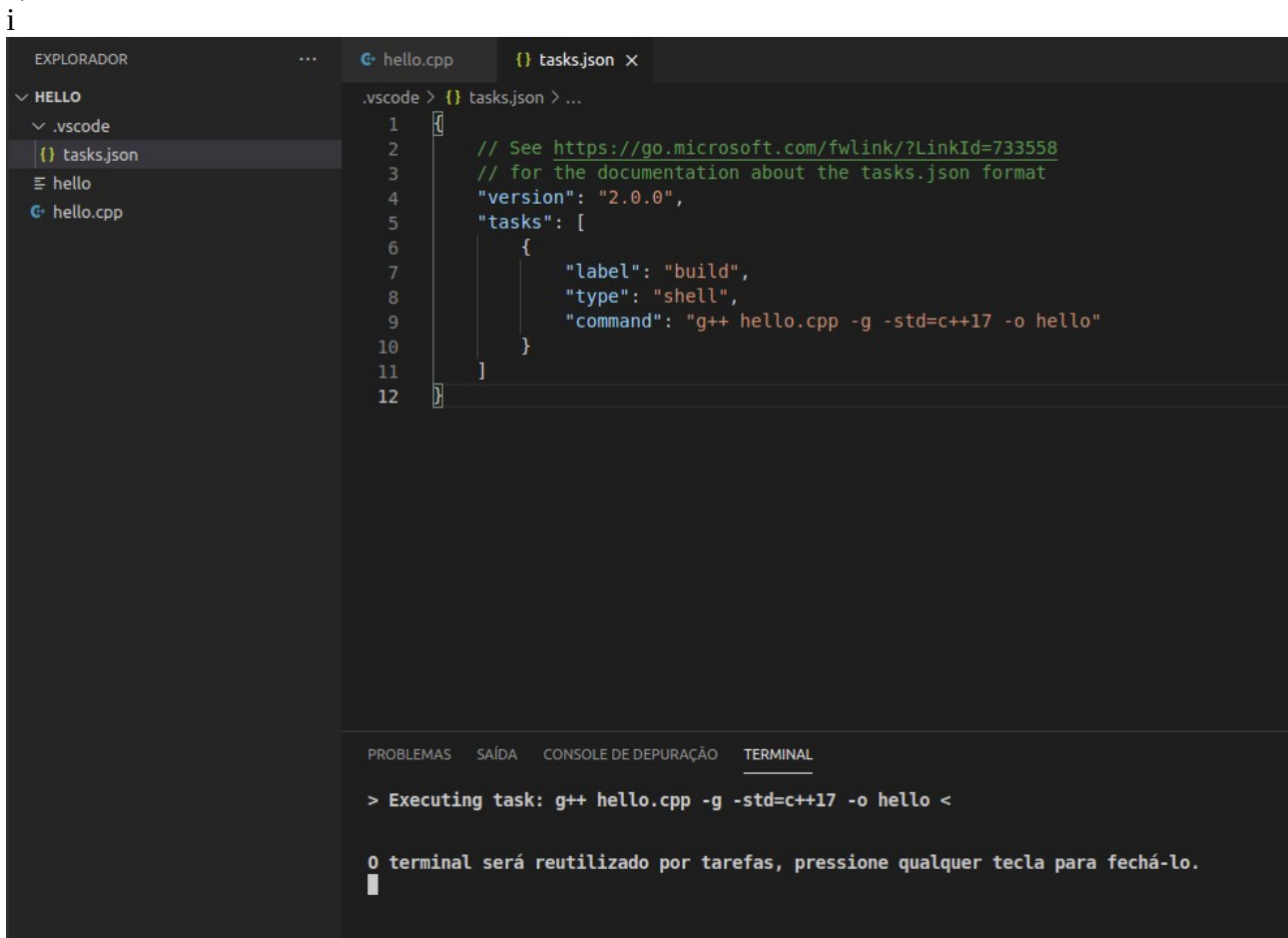
c)



d)



e)



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'HELLO' with files '.vscode', 'tasks.json', 'hello', and 'hello.cpp'. The 'tasks.json' file is open in the editor, showing the following content:

```
.vscode > {} tasks.json > ...
1  {}
2
3  // See https://go.microsoft.com/fwlink/?LinkId=733558
4  // for the documentation about the tasks.json format
5  "version": "2.0.0",
6  "tasks": [
7      {
8          "label": "build",
9          "type": "shell",
10         "command": "g++ hello.cpp -g -std=c++17 -o hello"
11     }
12 ]
```

The Terminal at the bottom shows the command `./hello` being executed, resulting in the output `Olá Mundo!`.

ii

The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'HELLO' with files '.vscode', 'tasks.json', 'hello.cpp', 'hello.o', and 'makefile'. The 'tasks.json' file is open in the editor, showing the following content:

```
.vscode > {} tasks.json > ...
1  {}
2
3  // See https://go.microsoft.com/fwlink/?LinkId=733558
4  // for the documentation about the tasks.json format
5  "version": "2.0.0",
6  "tasks": [
7      {
8          "label": "build",
9          "type": "shell",
10         "command": "make"
11     }
12 ]
```

The Terminal at the bottom shows the command `make` being executed, resulting in the output `g++ -c -g -std=c++17 hello.cpp` and `g++ hello.o -o hello`. Below the output, it says `0 terminal será reutilizado por tarefas, pressione qualquer tecla para fechá-lo.`

The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'HELLO' with files: .vscode, tasks.json, hello, hello.cpp, hello.o, and makefile. The 'tasks.json' file is open in the editor. The content of 'tasks.json' is as follows:

```
1 {  
2     // See https://go.microsoft.com/fwlink/?LinkId=733558  
3     // for the documentation about the tasks.json format  
4     "version": "2.0.0",  
5     "tasks": [  
6         {  
7             "label": "build",  
8             "type": "shell",  
9             "command": "make"  
10        }  
11    ]  
12 }
```

At the bottom, the TERMINAL panel shows the execution of the 'hello' task:

```
vitor@vitor-pc:~/Hello$ ./hello  
Olá Mundo!  
vitor@vitor-pc:~/Hello$ ./hello  
Olá Mundo!  
vitor@vitor-pc:~/Hello$
```

The screenshot shows the Visual Studio Code interface with the 'launch.json' file open in the editor. The Explorer sidebar shows the same project 'HELLO' with additional files: launch.json and tasks.json. The content of 'launch.json' is as follows:

```
1 {  
2     // Use o IntelliSense para saber mais sobre os atributos possíveis.  
3     // Focalizar para exibir as descrições dos atributos existentes.  
4     // Para obter mais informações, acesse: https://go.microsoft.com/fwlink/?linkid=830387  
5     "version": "0.2.0",  
6     "configurations": [  
7         {  
8             "name": "(gdb) Iniciar",  
9             "type": "cppdbg",  
10            "request": "launch",  
11            "program": "${workspaceFolder}/hello",  
12            "args": [],  
13            "stopAtEntry": false,  
14            "cwd": "${workspaceFolder}",  
15            "environment": [],  
16            "externalConsole": false,  
17            "MIMode": "gdb",  
18            "setupCommands": [  
19                {  
20                    "description": "Habilitar a reformatação automática para gdb",  
21                    "text": "-enable-pretty-printing",  
22                    "ignoreFailures": true  
23                }  
24            ]  
25        }  
26    ]  
27 }
```

A blue button labeled 'Adicionar Configuração...' is visible in the bottom right corner of the editor area.

EX... (gdb) Iniciar

hello.cpp tasks.json launch.json x makefile

VARIÁVEIS

INSPEÇÃO

PILHA DE CHAMADAS

.vscode > {} launch.json > ...

```
1
2
3 // Use o IntelliSense para saber mais sobre os atributos possíveis.
4 // Focalizar para exibir as descrições dos atributos existentes.
5 // Para obter mais informações, acesse: https://go.microsoft.com/fwlink/?linkid=830387
6 "version": "0.2.0",
7 "configurations": [
8   {
9     "name": "(gdb) Iniciar",
10    "type": "cppdbg",
11    "request": "launch",
12    "program": "${workspaceFolder}/hello",
13    "args": [],
14    "stopAtEntry": false,
15    "cwd": "${workspaceFolder}",
16    "environment": [],
17    "externalConsole": false,
18    "MIMode": "gdb",
19    "setupCommands": [
20      {
21        "description": "Habilitar a reformatação automática para gdb",
22        "text": "-enable-pretty-printing",
23        "ignoreFailures": true
24      }
25    ]
26  }
27 ]
```

Adicionar Configuração...

PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL

Filtrar (por exemplo, text, texclude)

Loaded /lib64/ld-linux-x86-64.so.2. Symbols loaded.

Breakpoint 1, main () at hello.cpp:6

6 cout << "Olá Mundo!\n";

Loaded /usr/lib/x86_64-linux-gnu/libstdc++.so.6'. Symbols loaded.

Loaded /lib/x86_64-linux-gnu/libc.so.6'. Symbols loaded.

Loaded /lib/x86_64-linux-gnu/libm.so.6'. Symbols loaded.

Loaded /lib/x86_64-linux-gnu/libgcc_s.so.1'. Symbols loaded.

[Inferior 1 (process 21697) exited normally]

The program '/home/vitor/Hello/hello' has exited with code 0 (0x00000000).

EX... (gdb) Iniciar

hello.cpp tasks.json launch.json x makefile

VARIÁVEIS

INSPEÇÃO

PILHA DE CHAMADAS

.vscode > {} launch.json > ...

```
1
2
3 // Use o IntelliSense para saber mais sobre os atributos possíveis.
4 // Focalizar para exibir as descrições dos atributos existentes.
5 // Para obter mais informações, acesse: https://go.microsoft.com/fwlink/?linkid=830387
6 "version": "0.2.0",
7 "configurations": [
8   {
9     "name": "(gdb) Iniciar",
10    "type": "cppdbg",
11    "request": "launch",
12    "program": "${workspaceFolder}/hello",
13    "args": [],
14    "stopAtEntry": false,
15    "cwd": "${workspaceFolder}",
16    "environment": [],
17    "externalConsole": false,
18    "MIMode": "gdb",
19    "setupCommands": [
20      {
21        "description": "Habilitar a reformatação automática para gdb",
22        "text": "-enable-pretty-printing",
23        "ignoreFailures": true
24      }
25    ]
26  }
27 ]
```

Adicionar Configuração...

PROBLEMAS SAÍDA CONSOLE DE DEPURAÇÃO TERMINAL

2: cppdbg: hello

Olá Mundo!

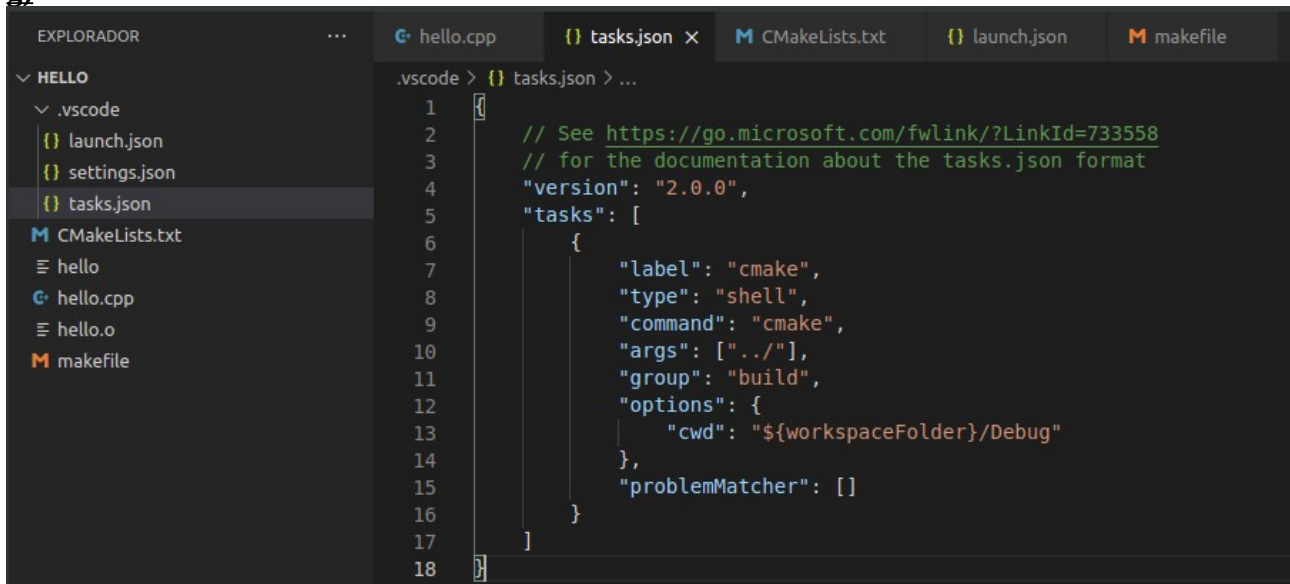
[1] + Done

"/usr/bin/gdb" --interpreter=mi --tty=\${DbgTerm} 0<" /tmp/Microsoft-MIEngine-In-uy9xzt1.0g7" 1>" /

tmp/Microsoft-MIEngine-Out-kabrhdc.bjv"

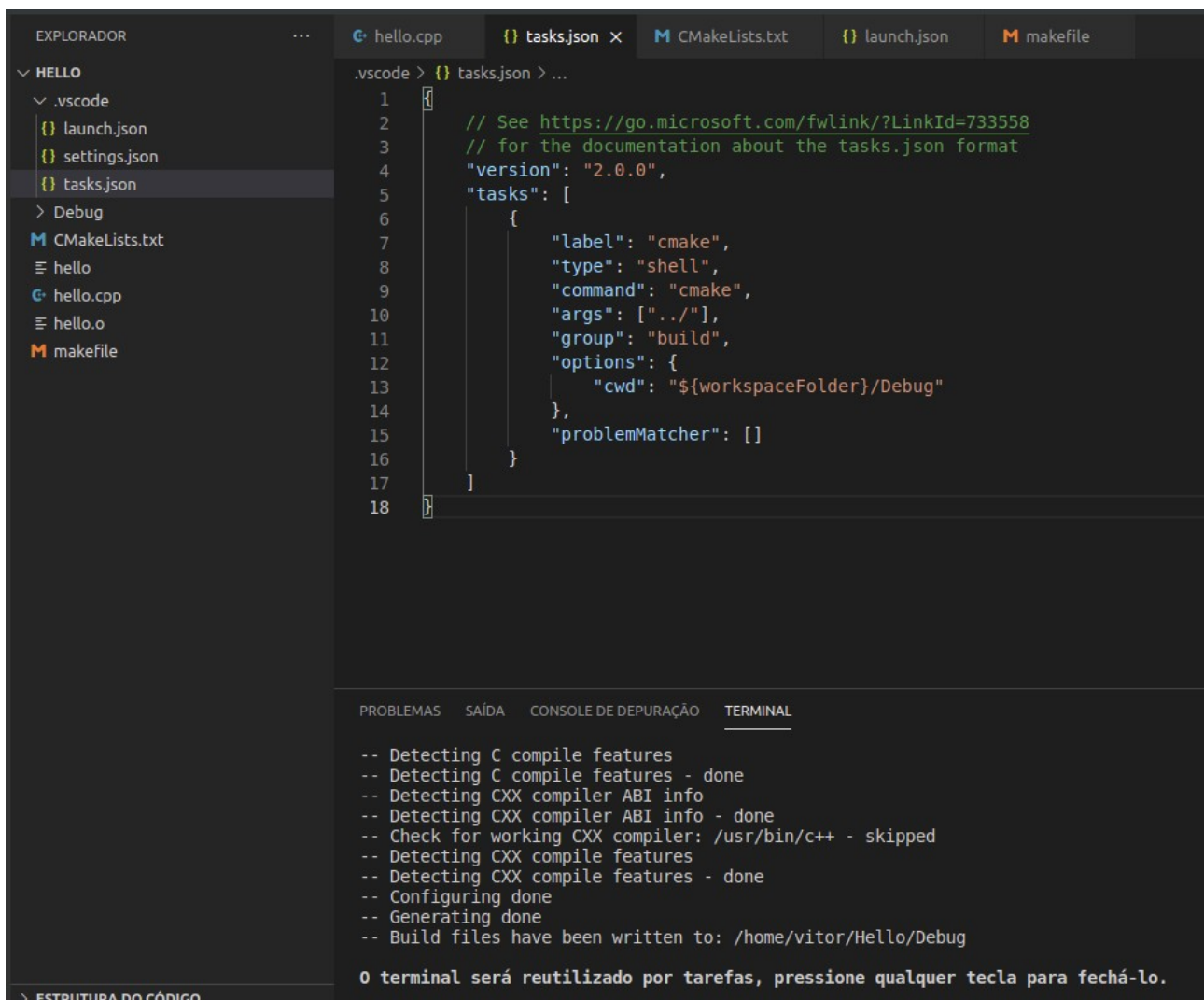
vitor@vitor-pc:~/Hello\$

g)



The screenshot shows the VS Code interface with the Explorer on the left and the Editor on the right. The Explorer shows a project named 'HELLO' with a '.vscode' folder containing 'launch.json', 'settings.json', and 'tasks.json'. The Editor shows the 'tasks.json' file with the following content:

```
.vscode > {} tasks.json > ...
1  [
2      // See https://go.microsoft.com/fwlink/?LinkId=733558
3      // for the documentation about the tasks.json format
4      "version": "2.0.0",
5      "tasks": [
6          {
7              "label": "cmake",
8              "type": "shell",
9              "command": "cmake",
10             "args": ["../"],
11             "group": "build",
12             "options": {
13                 "cwd": "${workspaceFolder}/Debug"
14             },
15             "problemMatcher": []
16         }
17     ]
18 ]
```



The screenshot shows the VS Code interface with the Explorer on the left and the Editor on the right. The Explorer shows a project named 'HELLO' with a '.vscode' folder containing 'launch.json', 'settings.json', and 'tasks.json'. The Editor shows the 'tasks.json' file with the following content:

```
.vscode > {} tasks.json > ...
1  [
2      // See https://go.microsoft.com/fwlink/?LinkId=733558
3      // for the documentation about the tasks.json format
4      "version": "2.0.0",
5      "tasks": [
6          {
7              "label": "cmake",
8              "type": "shell",
9              "command": "cmake",
10             "args": ["../"],
11             "group": "build",
12             "options": {
13                 "cwd": "${workspaceFolder}/Debug"
14             },
15             "problemMatcher": []
16         }
17     ]
18 ]
```

Below the Editor, the Output window is visible, showing the following output:

```
PROBLEMAS  SAÍDA  CONSOLE DE DEPURAÇÃO  TERMINAL
-- Detecting C compile features
-- Detecting C compile features - done
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Check for working CXX compiler: /usr/bin/c++ - skipped
-- Detecting CXX compile features
-- Detecting CXX compile features - done
-- Configuring done
-- Generating done
-- Build files have been written to: /home/vitor/Hello/Debug

0 terminal será reutilizado por tarefas, pressione qualquer tecla para fechá-lo.
```