

Algoritma & Pemrograman Lanjut



Intro.



Computational Thinking

Seperangkat metode penyelesaian masalah yang melibatkan pengungkapan masalah dan solusinya dengan cara yang dapat dilakukan oleh computer (Wikipedia, 2020)

Terdapat dua kelompok pecinta buah, yaitu kelompok pecinta buah apel dan kelompok pecinta buah jeruk. Pecinta apel yaitu Mirna, Jessica, Gani, Abdul, Joni, Sinta dan Raka. Sedangkan pecinta jeruk adalah Rama, Sinta, Riska, Yana, Joni, Gani dan Joe. Dengan menggunakan program, bagaimana Anda membandingkan nama-nama pada masing-masing kelompok sehingga Anda dapat menemukan nama mana saja yang terdaftar di kelompok apel tetapi tidak terdaftar di kelompok jeruk, dan juga sebaliknya, atau terdaftar di kedua kelompok.

array

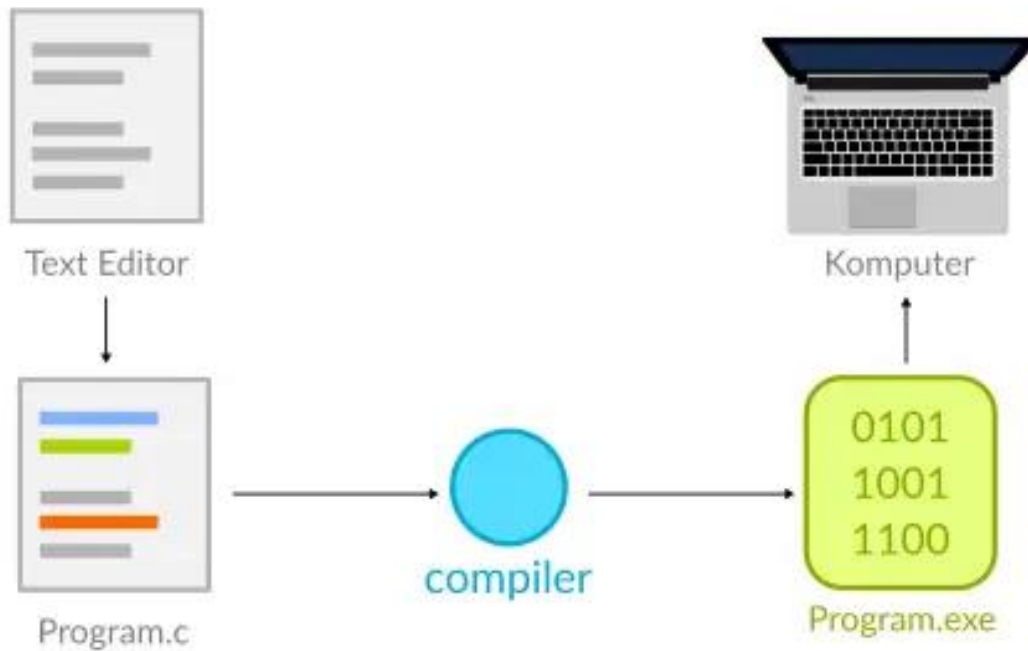
Looping

Conditional

Algoritma pencarian



What IDE for C/C++?

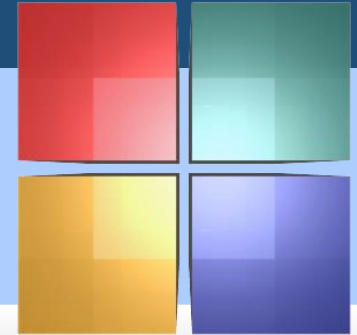


```
g++ hello-world.cpp -o hello-world
```

```
./hello-world
```



Code::Blocks IDE



```
sudo apt install g++
sudo apt install codeblocks xterm
```



Code::Blocks

Code::Blocks - The IDE with all the features you need, having a consistent look, feel and operation across platforms.

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Main

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Please select a setup package depending on your platform:

- Windows XP / Vista / 7 / 8.x / 10
- Linux 32 and 64-bit
- Mac OS X

NOTE: For older OS'es use older releases. There are releases for many OS version and platforms on the [Sourceforge.net](#) page.

NOTE: There are also more recent *nightly builds* available in the [forums](#) or (for Debian and Fedora users) in [Jens' Debian repository](#) and [Jens' Fedora repository](#). Please note that we consider nightly builds to be *stable*, usually.

NOTE: We have a [Changelog](#) for 17.12, that gives you an overview over the enhancements and fixes we have put in the new release.



Windows XP / Vista / 7 / 8.x / 10:

File	Date	Download from
codeblocks-17.12-setup.exe	30 Dec 2017	FossHUB or Sourceforge.net
codeblocks-17.12-setup-nonadmin.exe	30 Dec 2017	FossHUB or Sourceforge.net
codeblocks-17.12-nosetup.zip	30 Dec 2017	FossHUB or Sourceforge.net
codeblocks-17.12mingw-setup.exe	30 Dec 2017	FossHUB or Sourceforge.net
codeblocks-17.12mingw-nosetup.zip	30 Dec 2017	FossHUB or Sourceforge.net
codeblocks-17.12mingw_fortran-setup.exe	30 Dec 2017	FossHUB or Sourceforge.net

NOTE: The codeblocks-17.12-setup.exe file includes Code::Blocks with all plugins. The codeblocks-17.12-setup-nonadmin.exe file is provided for convenience to users that do not have administrator rights on their machine(s).

NOTE: The codeblocks-17.12mingw-setup.exe file includes additionally the GCC/G++ compiler and GDB debugger from **TDM-GCC** (version 5.1.0, 32 bit, SJLJ). The codeblocks-17.12mingw_fortran-setup.exe file includes additionally to that the GFortran compiler (**TDM-GCC**).

NOTE: The codeblocks-17.12(mingw)-nosetup.zip files are provided for convenience to users that are allergic against installers. However, it will not allow to select plugins / features to install (it includes everything) and not create any menu shortcuts. For the "installation" you are on your own.

If unsure, please use codeblocks-17.12mingw-setup.exe!



Linux 32 and 64-bit:

Distro	File	Date	Download from
	codeblocks_17.12-1_amd64_stable.tar.xz	06 Jan 2018	FossHUB or Sourceforge.net
	codeblocks_17.12-1_i386_stable.tar.xz	06 Jan 2018	FossHUB or Sourceforge.net
	codeblocks_17.12-1_amd64_testing.tar.xz	06 Jan 2018	FossHUB or Sourceforge.net
	codeblocks_17.12-1_i386_testing.tar.xz	06 Jan 2018	FossHUB or Sourceforge.net
	codeblock-17.12-1.fc26.i686.tar.xz	30 Dec 2017	FossHUB or Sourceforge.net
	codeblock-17.12-1.fc26.ppc64le.tar.xz	30 Dec 2017	FossHUB or Sourceforge.net
	codeblock-17.12-1.fc26.x86_64.tar.xz	30 Dec 2017	FossHUB or Sourceforge.net



Hello World!

First program in C++

```
1  #include <iostream>
2  using namespace std;
3
4  /* ini adalah komentar
5   yang lebih dari satu baris */
6
7  int main() {
8      // ini adalah komentar satu baris
9      cout << "Hello World!" << endl;
10     return 0;
11 }
```



{ Var, I/O, Conditional }

```
1  #include <iostream>
2  using namespace std;
3
4  int main(){
5
6      // deklarasi tipe data variabel
7      string nama;
8      int umur;
9      char jk;
10
11     cout << "Siapa namamu?" << endl;
12     cout << "jawab: ";
13     // gunakan getline untuk string
14     getline(cin, nama);
15
16     cout << "Berapa umurmu?" << endl;
17     cout << "jawab: ";
18     cin >> umur;
19
20     cout << "Jenis kelamin [L/P]: ";
21     cin >> jk;
22
23     cout << "Salam kenal, " << nama << " Sekarang kamu berusia ";
24     cout << umur << " dan kamu berjenis kelamin ";
25     (jk=='L' || jk=='l')? cout << "Laki-laki": cout << "Perempuan";
26
27     return 0;
28
29 }
```