

Programming

Software









Code

Algorithms


```
1  pick up phone book
2  open to middle of phone book
3  look at names
4  if Smith is among names
5      call Mike
6  else if Smith is earlier in book
7      open to middle of left half of book
8      go back to step 3
9  else if Smith is later in book
10     open to middle of right half of book
11     go back to step 3
12 else
13     quit
```

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- functions
- loops
- conditions
- Boolean expressions

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- Boolean expressions
- variables
- threads
- events
- ...

```
#include <stdio.h>
```

```
int main(void)
```

```
{
```

```
    printf("hello, world\n");
```

```
}
```


01111111	01000101	01001100	01000110	00000010	00000001	00000001	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000010	00000000	00111110	00000000	00000001	00000000	00000000	00000000
10110000	00000101	01000000	00000000	00000000	00000000	00000000	00000000
01000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
11010000	00010011	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	01000000	00000000	00111000	00000000
00001001	00000000	01000000	00000000	00100100	00000000	00100001	00000000
00000110	00000000	00000000	00000000	00000101	00000000	00000000	00000000
01000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
01000000	00000000	01000000	00000000	00000000	00000000	00000000	00000000
01000000	00000000	01000000	00000000	00000000	00000000	00000000	00000000
11111000	00000001	00000000	00000000	00000000	00000000	00000000	00000000
11111000	00000001	00000000	00000000	00000000	00000000	00000000	00000000
00001000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000011	00000000	00000000	00000000	00000100	00000000	00000000	00000000
00111000	00000010	00000000	00000000	00000000	00000000	00000000	00000000
00111000	00000010	01000000	00000000	00000000	00000000	00000000	00000000
00111000	00000010	01000000	00000000	00000000	00000000	00000000	00000000
00011100	00000000	00000000	00000000	00000000	00000000	00000000	00000000

...

```
#include <iostream>
```

```
int main()
```

```
{
```

```
    std::cout << "hello, world" << std::endl;
```

```
}
```

```
print("hello, world")
```

```
2      0 LOAD_GLOBAL      0 (print)
      3 LOAD_CONST        1 ('hello, world')
      6 CALL_FUNCTION      1 (1 positional, 0 keyword pair)
      9 POP_TOP
     10 LOAD_CONST        0 (None)
     13 RETURN_VALUE
```

```
class Hello
{
    public static void main(String [] args)
    {
        System.out.println("hello, world");
    }
}
```

```
put "hello, world"
```

```
(print "hello, world")
```

```
console.log("hello, world")
```


when  clicked

say hello, world

say

hello, world

forever

say hello, world



repeat 50

say hello, world



```
if  $x < y$  then
  say x is less than y
else
  if  $x > y$  then
    say x is greater than y
  else
    say x is equal to y
```



when  clicked

say hello, world

- functions
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- Boolean expressions
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- Bash
- C
- C++
- C#
- Clojure
- Erlang
- F#
- Go
- Haskell
- Java
- JavaScript
- Objective-C
- OCaml
- PHP
- Python
- R
- Ruby
- Scala
- Scheme
- SQL
- Swift
- ...

wikipedia.org/wiki/List_of_programming_languages

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