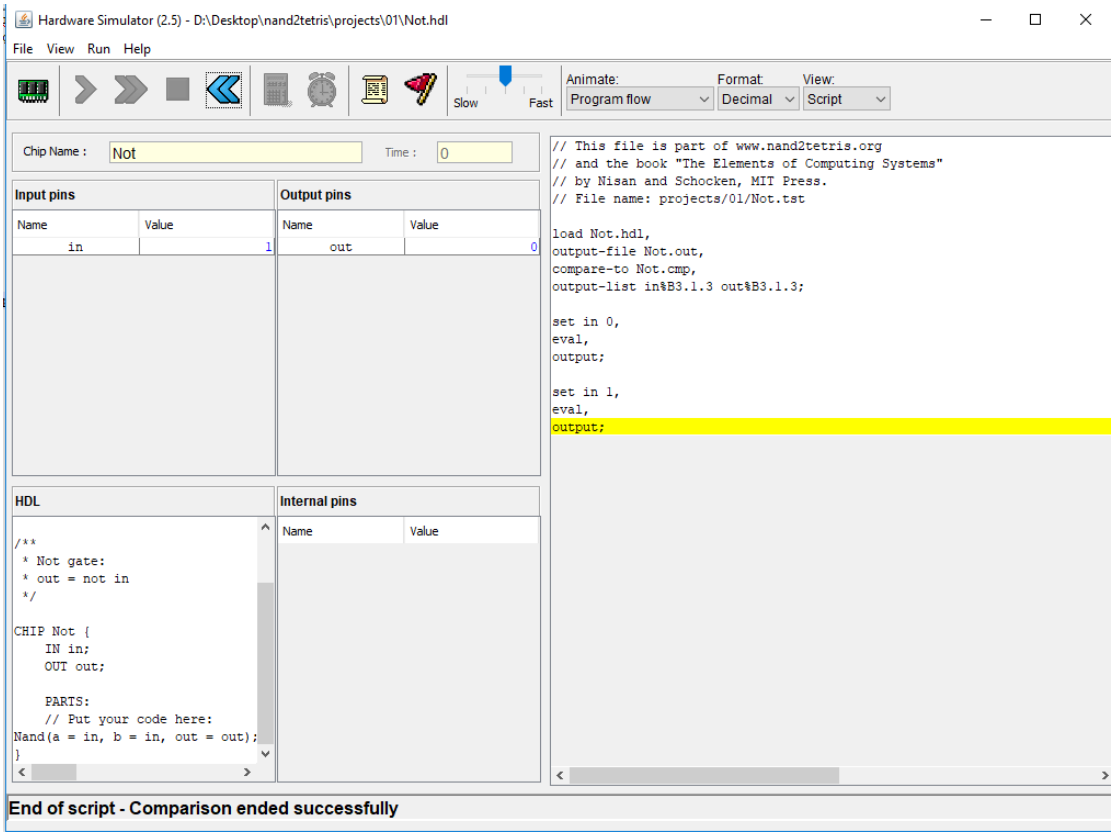
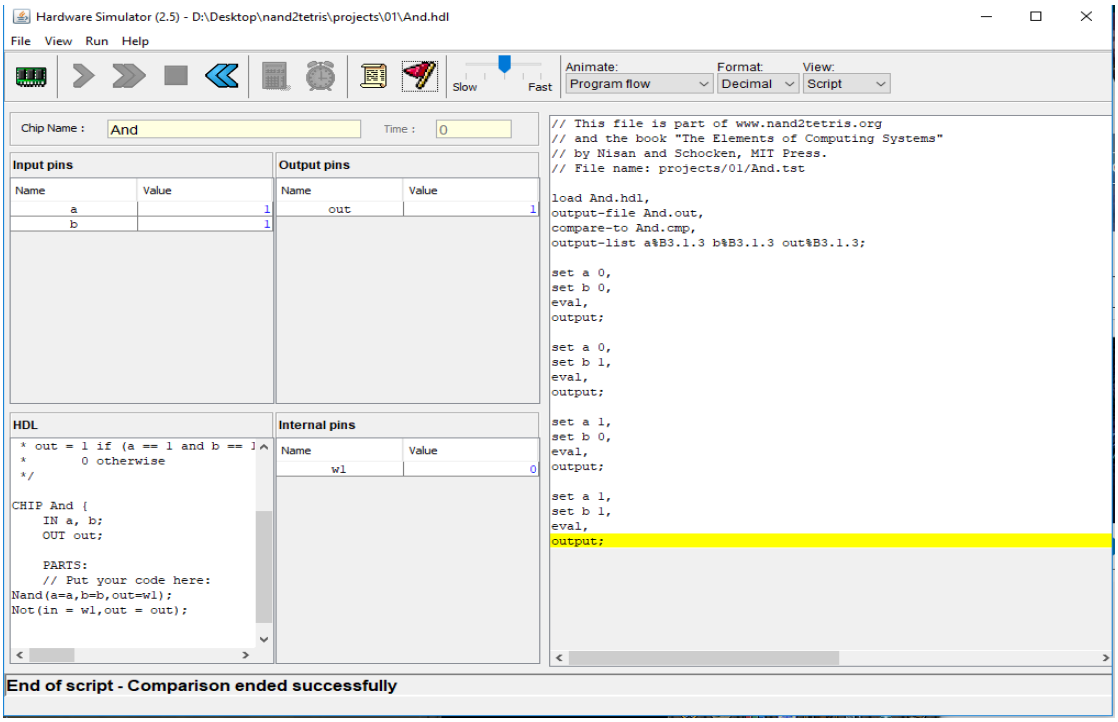
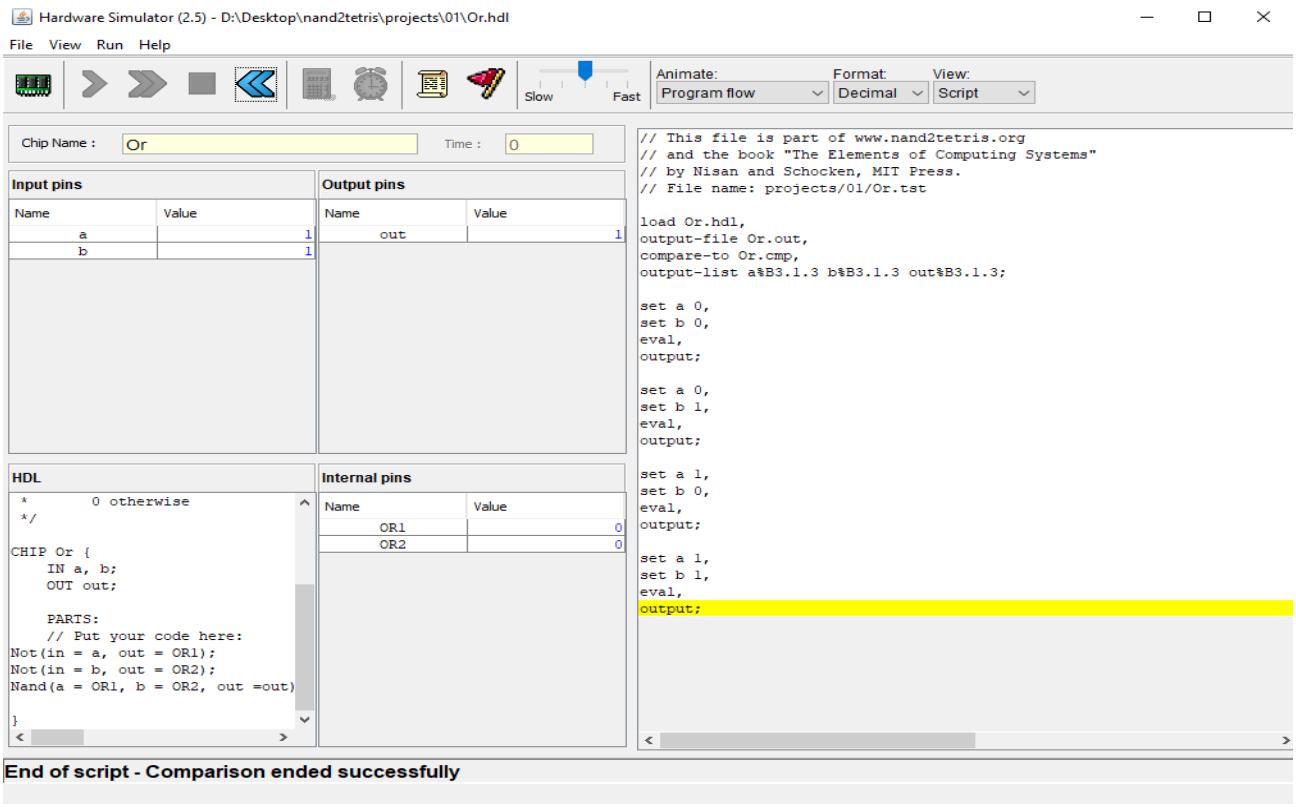
**NOT :**


Hardware Simulator (2.5) - D:\Desktop\nand2tetris\projects\01\Not.hdl
File View Run Help
Slow
Fast
Animate:
Program flow
Format:
Decimal
View:
Script
Chip Name :
Not
Time :
0
Input pins
Name
Value
in
1
Output pins
Name
Value
out
0
HDL
/**
* Not gate:
* out = not in
*/
CHIP Not {
IN in;
OUT out;
PARTS:
// Put your code here:
Nand(a = in, b = in, out = out);
}
Internal pins
Name
Value
// This file is part of www.nand2tetris.org
// and the book "The Elements of Computing Systems"
// by Nisan and Schocken, MIT Press.
// File name: projects/01/Not.tst
load Not.hdl,
output-file Not.out,
compare-to Not.cmp,
output-list in%B3.1.3 out%B3.1.3;
set in 0,
eval,
output;
set in 1,
eval,
output;
End of script - Comparison ended successfully

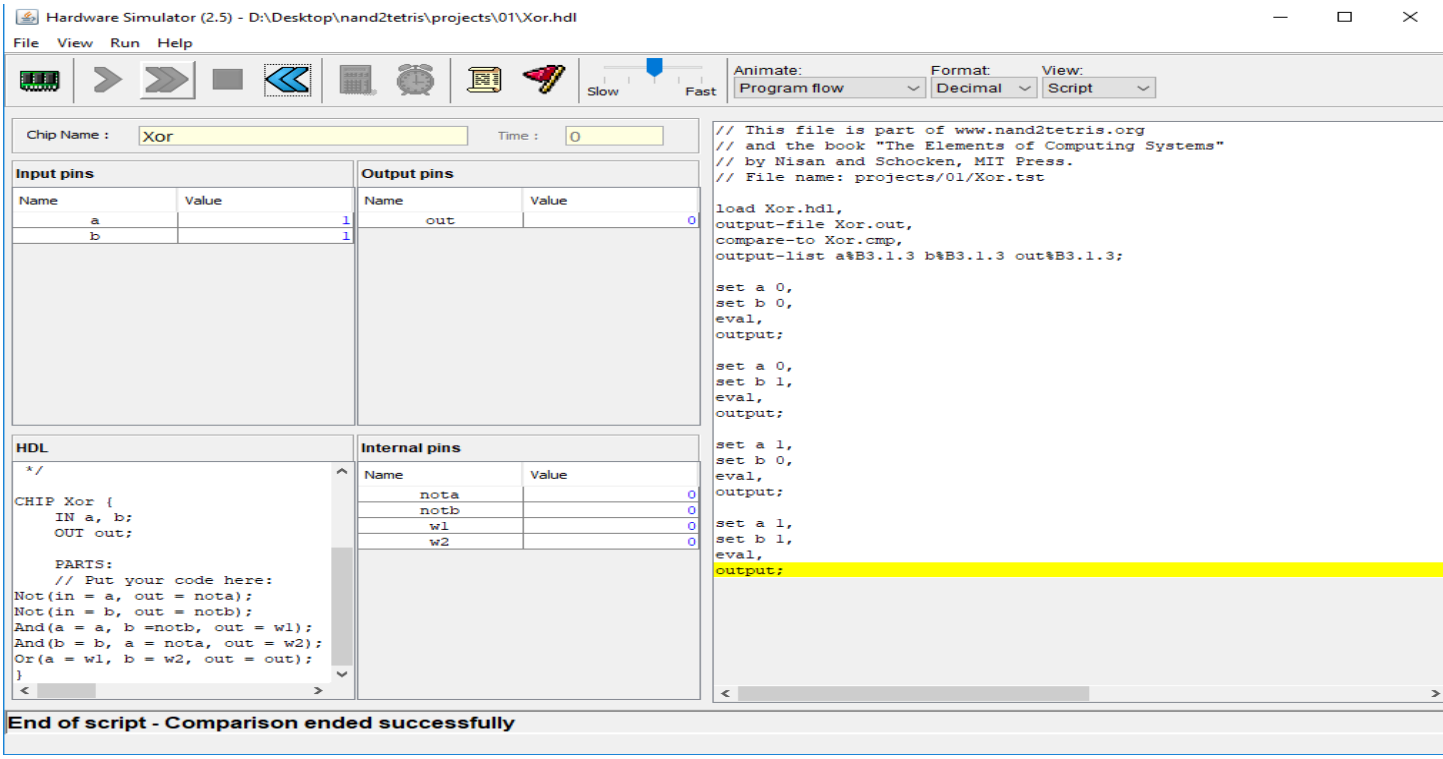
**AND:**


Hardware Simulator (2.5) - D:\Desktop\nand2tetris\projects\01\And.hdl
File View Run Help
Slow
Fast
Animate:
Program flow
Format:
Decimal
View:
Script
Chip Name :
And
Time :
0
Input pins
Name
Value
a
1
b
1
Output pins
Name
Value
out
1
HDL
* out = 1 if (a == 1 and b == 1)
* 0 otherwise
*/
CHIP And {
IN a, b;
OUT out;
PARTS:
// Put your code here:
Nand(a=a,b=b,out=w1);
Not(in = w1,out = out);
Internal pins
Name
Value
w1
0
// This file is part of www.nand2tetris.org
// and the book "The Elements of Computing Systems"
// by Nisan and Schocken, MIT Press.
// File name: projects/01/And.tst
load And.hdl,
output-file And.out,
compare-to And.cmp,
output-list a%B3.1.3 b%B3.1.3 out%B3.1.3;
set a 0,
set b 0,
eval,
output;
set a 0,
set b 1,
eval,
output;
set a 1,
set b 0,
eval,
output;
set a 1,
set b 1,
eval,
output;
End of script - Comparison ended successfully

## Or:


Hardware Simulator (2.5) - D:\Desktop\nand2tetris\projects\01\Or.hdl
File View Run Help
Slow
Fast
Animate:
Program flow
Format:
Decimal
View:
Script
Chip Name :
Or
Time :
0
Input pins
Name
Value
a
1
b
1
Output pins
Name
Value
out
1
HDL
* 0 otherwise
*/
CHIP Or {
IN a, b;
OUT out;
PARTS:
// Put your code here:
Not(in = a, out = OR1);
Not(in = b, out = OR2);
Nand(a = OR1, b = OR2, out =out);
}
Internal pins
Name
Value
OR1
0
OR2
0
// This file is part of www.nand2tetris.org
// and the book "The Elements of Computing Systems"
// by Nisan and Schocken, MIT Press.
// File name: projects/01/Or.tst
load Or.hdl,
output-file Or.out,
compare-to Or.cmp,
output-list a%B3.1.3 b%B3.1.3 out%B3.1.3;
set a 0,
set b 0,
eval,
output;
set a 0,
set b 1,
eval,
output;
set a 1,
set b 0,
eval,
output;
set a 1,
set b 1,
eval,
output;
End of script - Comparison ended successfully

## Xor:


Hardware Simulator (2.5) - D:\Desktop\nand2tetris\projects\01\Xor.hdl
File View Run Help
Slow
Fast
Animate:
Program flow
Format:
Decimal
View:
Script
Chip Name :
Xor
Time :
0
Input pins
Name
Value
a
1
b
1
Output pins
Name
Value
out
0
HDL
*/
CHIP Xor {
IN a, b;
OUT out;
PARTS:
// Put your code here:
Not(in = a, out = nota);
Not(in = b, out = notb);
And(a = a, b =notb, out = w1);
And(b = b, a = nota, out = w2);
Or(a = w1, b = w2, out = out);
}
Internal pins
Name
Value
nota
0
notb
0
w1
0
w2
0
// This file is part of www.nand2tetris.org
// and the book "The Elements of Computing Systems"
// by Nisan and Schocken, MIT Press.
// File name: projects/01/Xor.tst
load Xor.hdl,
output-file Xor.out,
compare-to Xor.cmp,
output-list a%B3.1.3 b%B3.1.3 out%B3.1.3;
set a 0,
set b 0,
eval,
output;
set a 0,
set b 1,
eval,
output;
set a 1,
set b 0,
eval,
output;
set a 1,
set b 1,
eval,
output;
End of script - Comparison ended successfully