



Ain Shams University
Faculty of Engineering
Computer and Systems Department

Compilers

Report On: Scanner

Name: Mohamed Gamal Elsaid

Name: Mohamed Osama Mostafa

Section: 3

Change code here

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View

Scanner

Name	Date modified	Type	Size
lib	08/11/2018 12:20 ...	File folder	
api-ms-win-crt-conio-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	20 KB
api-ms-win-crt-convert-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	23 KB
api-ms-win-crt-environment-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	19 KB
api-ms-win-crt-filesystem-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	21 KB
api-ms-win-crt-heap-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	20 KB
api-ms-win-crt-locale-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	19 KB
api-ms-win-crt-math-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	27 KB
api-ms-win-crt-process-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	20 KB
api-ms-win-crt-runtime-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	22 KB
api-ms-win-crt-stdio-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	25 KB
api-ms-win-crt-string-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	25 KB
api-ms-win-crt-time-l1-1-0.dll	07/11/2018 2:06 PM	Application extens...	21 KB
output	08/11/2018 12:22 ...	Text Document	1 KB
python36.dll	07/11/2018 2:10 PM	Application extens...	3,518 KB
Scanner	07/11/2018 2:06 PM	Application	20 KB
testcase	08/11/2018 12:22 ...	Text Document	1 KB
VCRUNTIME140.dll	07/11/2018 2:07 PM	Application extens...	88 KB

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Application Tools

Scanner

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View

Manage

Scanner

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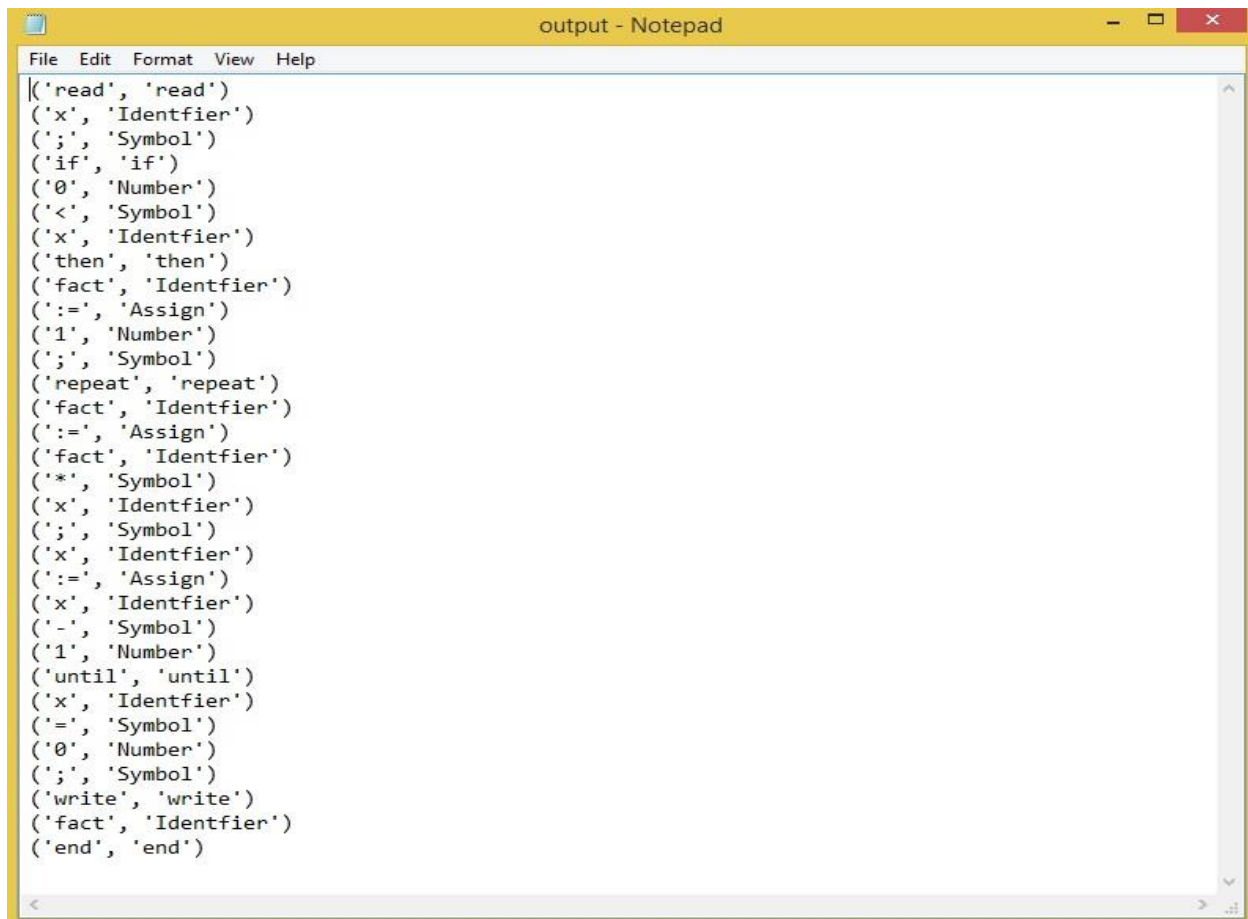
Output file here

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Test case 1

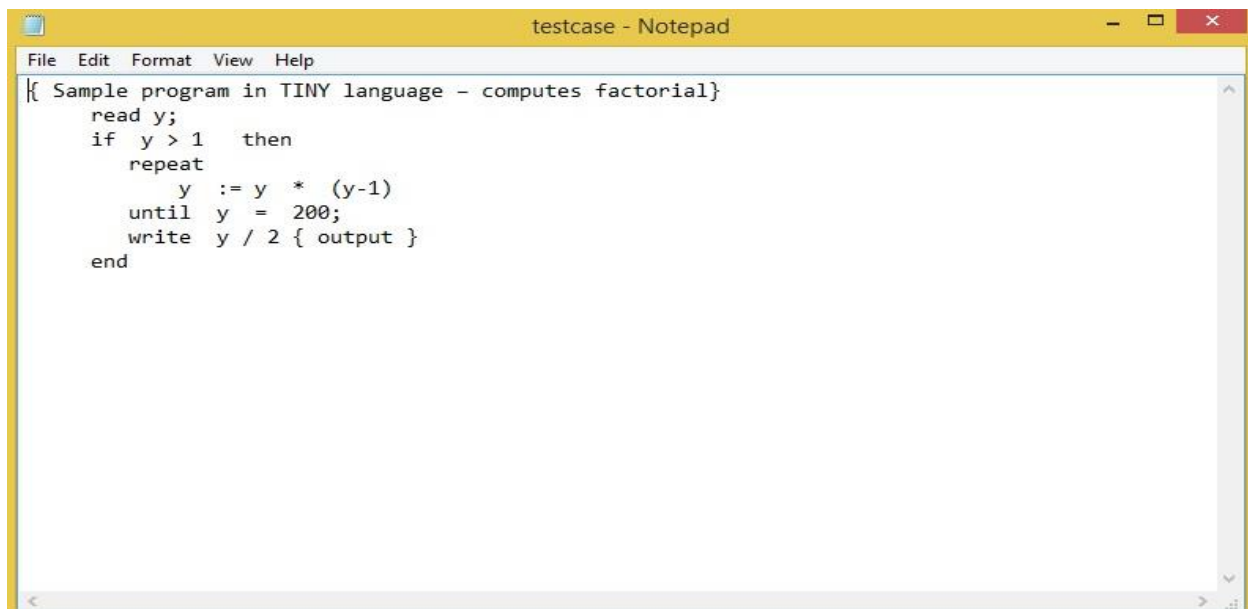
```
testcase - Notepad
File Edit Format View Help
{ Sample program in TINY language - computes factorial}
  read x;  {input an integer }
  if 0 < x then    { don't compute if x <= 0 }
    fact := 1;
    repeat
      fact := fact * x;
      x := x - 1
    until x = 0;
  write fact { output factorial of x }
end
```

Output 1



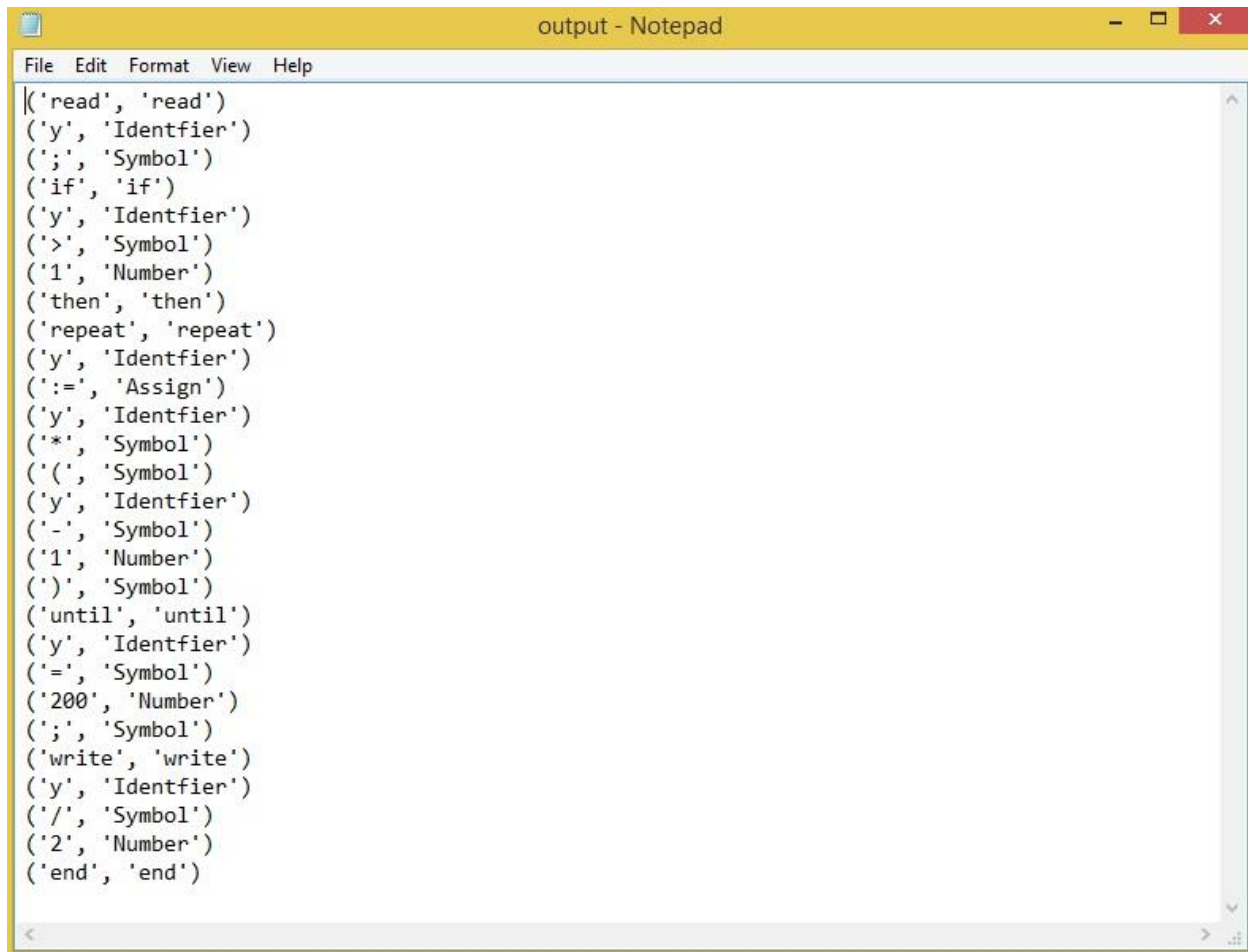
```
File Edit Format View Help
('read', 'read')
('x', 'Identfier')
(';', 'Symbol')
('if', 'if')
('0', 'Number')
('<', 'Symbol')
('x', 'Identfier')
('then', 'then')
('fact', 'Identfier')
(':=', 'Assign')
('1', 'Number')
(';', 'Symbol')
('repeat', 'repeat')
('fact', 'Identfier')
(':=', 'Assign')
('fact', 'Identfier')
('*', 'Symbol')
('x', 'Identfier')
(';', 'Symbol')
('x', 'Identfier')
(':=', 'Assign')
('x', 'Identfier')
('-', 'Symbol')
('1', 'Number')
('until', 'until')
('x', 'Identfier')
('=', 'Symbol')
('0', 'Number')
(';', 'Symbol')
('write', 'write')
('fact', 'Identfier')
('end', 'end')
```

Test case 2



```
File Edit Format View Help
[{ Sample program in TINY language - computes factorial}
  read y;
  if y > 1 then
    repeat
      y := y * (y-1)
    until y = 200;
  write y / 2 { output }
end
```

Output 2



```
( 'read', 'read' )
( 'y', 'Identfier' )
( ';', 'Symbol' )
( 'if', 'if' )
( 'y', 'Identfier' )
( '>', 'Symbol' )
( '1', 'Number' )
( 'then', 'then' )
( 'repeat', 'repeat' )
( 'y', 'Identfier' )
( ':=', 'Assign' )
( 'y', 'Identfier' )
( '*', 'Symbol' )
( '(', 'Symbol' )
( 'y', 'Identfier' )
( '-', 'Symbol' )
( '1', 'Number' )
( ')', 'Symbol' )
( 'until', 'until' )
( 'y', 'Identfier' )
( '=', 'Symbol' )
( '200', 'Number' )
( ';', 'Symbol' )
( 'write', 'write' )
( 'y', 'Identfier' )
( '/', 'Symbol' )
( '2', 'Number' )
( 'end', 'end' )
```