TPC6: Lexical Analyzer for a Programming Language

Using Ply builds a lexical analyzer that returns the list of tokens for the programming language that is exemplified below.

Example1

/\* factorial.p   
-- 2023-03-20   
-- by jcr   
\*/   
  
int i;   
  
// Function that calculates the factorial of a number n   
function fact(n){   
int res = 1;   
while res > 1 {   
res = res \* n;   
res = res - 1;   
}   
}   
  
// Main program   
program myFact{   
for i in [1..10]{   
print(i, fact(i));   
}   
}

Example2

/\* max.p: calculate the largest integer of an unordered list   
-- 2023-03-20   
-- by jcr   
\*/   
  
int i = 10, a[10] = {1,2,3,4,5,6,7 ,8,9,10};   
  
// Main program   
program myMax{   
int max = a[0];   
for i in [1..9]{   
if max < a[i] {   
max = a[i];   
}   
}   
print(max);   
}