Microprocessor Lab 3 report

Group 3 0410137 劉家麟 0416324 胡安鳳

Problem1. Postfix expression evaluation

1.Defition and abstraction of the problem

The definition and the problem can be found at

<http://www.geeksforgeeks.org/stack-set-4-evaluation-postfix-expression/>

which is quite different from the normal infix notation

2.Pseudo code and workflow of this problem

get\_strlen(expr[i])

for(i <length of the expression) i=string iterator

{

if(is\_integer(expr[i]))

{

atoi\_getvalue(start\_from\_i);

}

else if(is\_minus\_sign)

{

if(is\_space(get\_next\_char()))

{

//then this is the minus operation

postfix\_evaluation\_minus();

}

else

{

//this is the signed part of the number

stack\_push(atoi\_getvalue(start\_from\_i));

//which get a minus integer

}

}

else if(is\_plus\_sigm)

{

stack\_push(postfix\_evaluation\_plus());

}

else //if this is a space

{

i++ just iterate to the next

}

}

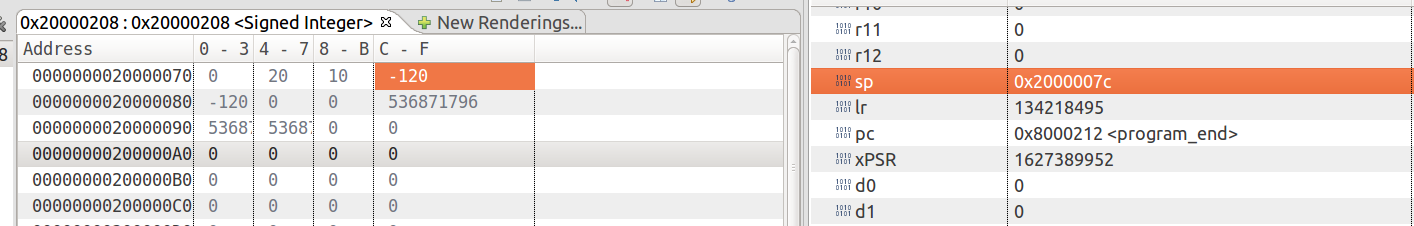
then we’re done

Detailed code can be found at:

<https://pastebin.com/jTQn34h7>

3. Testcases and result

“-100 10 20 + - 10 +”should be -120



“” should be -6