

# Homework Assignment 7

**Due Date: 18:30, June 9, 2016**

## 1 Problem 1

In this homework, you are asked to design **linux-shell-like systems**. First, you need to read file which has few command lines ( < 10 ), there are three main command **cat** , **removetag** and **exit** to be implement. In addition, there are **two** Output Redirection operators **( > ) ( | )**

Three commands instruction as follows:

**cat:** **output on the screen**

**removetag :** **remove punctuation** ( =+,.,\"!-;() )

**exit:** **end of program**

Two standard output operators instructions

**>** OutputName: output to be saved in the file (the content saved before will be cleared)

**|**N : feed the output to next N command line as input

### 1.1 Speccification & Example

- How to read file

```
./hw7 input_file          #int main(int argc,char argv[])
```

- Example of reading a command line and how to output (on the screen or file)

```
cat HellowWorld.txt      #read from command line
```

```
-> output : screen      #this line just explanation ,not output on the screen
```

```
% cat HellowWorld.txt
```

```
“hellow world”.
```

```
removetag HellowWorld.txt
```

```
-> output: screen
```

```
% removetag HellowWorld.txt
```

```
removetag HellowWorld.txt > result.txt      # “>” means write to the result.txt
```

```
->output: screen and file
```

```
% removetag HellowWorld.txt > result.txt
```

```
->result.txt: hellow world
```

```
ctt HellowWorld.txt
```

```
->output: screen
```

```
% ctt HellowWorld.txt
```

unknown command

```
cat HellowWorld.txt |1 # This pipe will pipe stdout to next command.
ctt # unknown command, process number is not counted
cat
->ouput: screen
% cat HellowWorld.txt |1
unknown command
“hellow world”
```

“

- Only one standard input and one standard output , you don't worry about this cases

```
cat HellowWorld.txt |1
removetag HellowWorld.txt (X) # two input
```

```
cat HellowWorld.txt |1 > result.txt (X) #two output
```

But the case will happen

```
cat HellowWorld.txt |2
removetag HellowWorld.txt |1
cat
->output: screen
% cat HellowWorld.txt |2
% removetag HellowWorld.txt |1
% cat
“hellow world”.
hellow world
```

## 2 Submission

1. Submit your implementation of **hw7.cpp** to E3.
2. Do not rename the files or put them into any directory. Upload them directly to the **e-Campus (E3)** system. You will get no credit if you don't follow the rule. Note that the penalty for late homework is **15% per day**, and late homework will not be accepted after 3 days past the due date. In addition, homework assignments must be individual work. If I detect what I consider to be intentional plagiarism in any assignment, the assignment will receive **zero credit**.