In The Name Of God

(Problem set - 0 )

# The following concepts were discussed this session :

1 - getchar() , putchar()

2 - variable types

3 - Ascii Table and difference between “a” & ‘a’

4 - Control Flow ( if statements )

5 - while loop , for loop , boolean

# The Following Questions were discussed in the Class :( **4** questions are discussed )

1 - write a program that would get an input stream and count the whitespaces .( whitespace : ‘\n’ , ‘\t’ ,’b’ -> blank )

Answer :

#include<stdio.h>

int main() {

int c;

int whiteSpaceNumber;

whiteSpaceNumber = 0;

while ((c = getchar()) != EOF) {

if (c == ' ' || c == '\n' || c == '\t') {

whiteSpaceNumber = whiteSpaceNumber + 1;

}

}

printf("%d\n", whiteSpaceNumber);

return 0;

}

**// To be continued**

2 - Write a program that gets a stream of input and removes extra blanks ( spaces ) and prints the output **without** using “printf()” function .

EX :

Input : Hello World !

Output : Hello World !

Answer :

#include<stdio.h>

int main() {

int c;

while ((c = getchar()) != EOF) {

if (c == ' ') {

while ((c = getchar()) == ' ') {}

putchar(' ');

}

putchar(c);

}

return 0;

}

**// Continued on the next page**

3 - write a program that prints the value of an integer variable with putchar() function .

EX :

#include <stdio.h>

Int main(){

Int number = 128 ;

/\* write your code here \*/

Return 0 ;

}

//Output : 128

4 - write a program that would get an stream as input and counts any character which is not an alphabet .( alphabets are : a,b,...z & A,B,...Z )

#Attention : WhiteSpaces & “\n” are also non-alphabet characters .

Answer :

#include <stdio.h>

int main(){

int c ;

int counter = 0 ;

while ( (c = getchar() ) != EOF ){

if ( !( c >= 'A' && c <= 'Z' ) && !( c >= 'a' && c <= 'z' ) ){

counter = counter + 1 ;

}

}

printf("The Counter is : %d " , counter ) ;

return 0 ;

}

5 - Write a program that gets 3 integer numbers and prints the Max of them. ( you can only use getchar() & putchar() / you can not use printf() )

**# Attention , All Students :**

**If You have any questions or problems , DO NOT HESITATE to ask from any of your graders .**

**Good Luck .**