Csc215 lab3 solution :

//////////////////////////////////////////////\*\*\*\*\*ex1.c

#include <stdio.h>

int main(){

char sentence[255], ch;

int i=0;

printf("Please enter a sentence:\n");

gets(sentence);

while( (ch=sentence[i]) != '\0'){

if (i==0 || sentence[i-1] == ' '){

if (ch>='a' && ch<='z')

sentence[i] -= ('a'-'A');

}

else {

if (ch>='A' && ch<='Z')

sentence[i] += ('a'-'A');

}

i++;

}

printf("%s\n", sentence);

return 0;

}

///////////////////////////////////////////////////////////////////////ex2.c

#include <stdio.h>

int main(){

float series;

float term;

int i;

/\* Part 1 \*/

series = 0;

for (i = 1; i <= 1000; i++) {

int sign = (i+1)%2 == 0? 1:-1;

int isq = i\*i;

int i5sq = (i+5)\*(i+5);

term = (float)sign \* isq / i5sq;

series += term;

}

printf("%f\n", series);

/\* Part 2 \*/

series = term = 0;

i=0;

do {

series += term;

i++;

int sign = (i+1)%2 == 0? 1:-1;

int isq = i\*i;

int i5sq = (i+5)\*(i+5);

term = (float)sign \* isq / i5sq;

} while ( (series+term) < 0.5);

printf("%d\n", i-1);

return 0;

}

///////////////////////////////////////////////////////////ex3.c

 #include <stdio.h>

int main(){

int n, i, j;

printf("Enter a positive integer:");

scanf("%d", &n);

for (i=n; i>0; i--){

for (j=1; j<=i; j++)

printf("\*");

printf("\n");

}

for (i=2; i<=n; i++){

for (j=1; j<=i; j++)

printf("\*");

printf("\n");

}

return 0;

}

////////////////////////////////////////////////////assignment.c

 #include <stdio.h>

int main(){

char sentence[255], ch;

int i=0;

int cA=0, cE=0, cI=0, cO=0, cU=0;

printf("Please enter a sentence:\n");

gets(sentence);

while( (ch=sentence[i++]) != '\0')

switch (ch){

case 'A': case 'a': cA++; break;

case 'E': case 'e': cE++; break;

case 'I': case 'i': cI++; break;

case 'O': case 'o': cO++; break;

case 'U': case 'u': cU++;

}

printf("A:%d\tE:%d\tI:%d\tO:%d\tU:%d\n",

cA, cE, cI, cO, cU);

return 0;

}