**SSN COLLEGE OF ENGINEERING (Autonomous)**

**Affiliated to Anna University**

**DEPARTMENT OF CSE**

**UCS 1211 PROGRAMMING IN C LABORATORY**

**A5: Pointers in C**

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**CLASS: CSE-B (SEMESTER-2)**

**1)Program name: To search for a given word and return the count.**

#include<stdio.h>

#include<stdlib.h>

void main()

{

char \*str=0,\*word=0;

int counter=0;

str=(char\*)malloc(100\*sizeof(char));

word=(char\*)malloc(100\*sizeof(char));

printf(" Enter a string ");

scanf("%[^\n]",str);

getchar();

printf(" Enter the word to be searched for ");

scanf("%[^\n]",word);

for(int i=0;\*(str+i);i++){

int j=0,k=0;

int flag=0;

if(\*(str+i)==\*(word)){

for(j=i,k=0;\*(word+j)&&!flag;j++,k++)

if(\*(str+j)!=\*(word+k))

flag=1;

if(!flag)

counter++;

}

}

printf(" The number of occurences is %d",counter);

}

**Output**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ gcc a5.1.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ ./a.out

hi how are you hi what is up hi where are you

Enter the word to be searched for hi

The number of occurences is 3

**2)Program name: Parse.**

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

void main()

{

char \*ptr[100];

int i=0;

printf("Enter the strings\n");

do{

ptr[i]=(char\*)malloc(100);

scanf("%s",\*(ptr+i));

i++;

}while(strcmp(\*(ptr+i-1),"END"));

for(i=0;strcmp(\*(ptr+i),"END");i++){

//printf("HI1\n");

for(int j=0;\*(\*(ptr+i)+j)!='\0';j++){

//printf("HI2\n");

if(\*(\*(ptr+i)+j)==' ')

printf(",");

else

printf("%c",\*(\*(ptr+i)+j));

}

printf(",");

}

}

**Output**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ gcc a5.2.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ ./a.out

Enter the strings

What are you up to

Where is the pizza

END

What,are,you,up,to,where,is,the,pizza,

**3)Program name: Printing the larger of the two roes using pointers.**

#include<stdio.h>

#include<stdlib.h>

void main()

{

int \*t1[100],\*t2[100],\*t3[100];

int r,c;

printf("Enter the number of rows and columns ");

scanf("%d %d",&r,&c);

for(int i=0;i<r;i++){

t1[i]=(int\*)malloc(c\*sizeof(int));

t2[i]=(int\*)malloc(c\*sizeof(int));

t3[i]=(int\*)malloc(c\*sizeof(int));

}

printf("Enter elements of table 1\n ");

for(int i=0;i<r;i++)

for(int j=0;j<c;j++)

scanf("%d",(\*(t1+i)+j));

printf("Enter elements of table 2\n ");

for(int i=0;i<r;i++)

for(int j=0;j<c;j++)

scanf("%d",(\*(t2+i)+j));

for(int i=0;i<r;i++)

for(int j=0;j<c;j++)

\*(\*(t3+i)+j)=(\*(\*(t1+i)+j)>\*(\*(t2+i)+j))?(\*(\*(t1+i)+j)):(\*(\*(t2+i)+j));

for(int i=0;i<r;i++){

for(int j=0;j<c;j++)

printf("%d ",\*(\*(t3+i)+j));

printf("\n");

}

}

**Output**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ gcc a5.3.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ ./a.out

Enter the number of rows and columns 2 3

Enter elements of table 1: 1 2 3 4 5 6

Enter elements of table 2: 0 7 6 5 4 3

1 7 6

5 5 6

**4)Program name: Number of days between two dates.**

#include<stdio.h>

#include<stdlib.h>

void main()

{

int \*date1,\*date2;

date1=(int\*)malloc(3\*sizeof(int));

date2=(int\*)malloc(3\*sizeof(int));

printf("Enter the first date (dd mm yyyy): ");

scanf("%d %d %d", (date1+0),(date1+1),(date1+2));

printf("Enter the second date (dd mm yyyy): ");

scanf("%d %d %d", (date2+0),(date2+1),(date2+2));

/\* BASE DATE: JANUARY 1,1900 \*/

int NoD1=0,NoD2=0;

int NoY1=0,NoY2=0;

/\*Difference between date 1 and base date \*/

NoY1=\*(date1+2)-1900;

NoD1+=(NoY1\*365);

NoD1+=(NoY1/4);

switch(\*(date1+1)){

case(12):NoD1+=30;

case(11):NoD1+=31;

case(10):NoD1+=30;

case(9):NoD1+=31;

case(8):NoD1+=31;

case(7):NoD1+=30;

case(6):NoD1+=31;

case(5):NoD1+=30;

case(4):NoD1+=31;

case(3):NoD1+=28;

case(2):NoD1+=31;

case(1):break;

}

NoD1+=(\*(date1)-1);

/\*Difference between date 2 and base date \*/

NoY2=\*(date2+2)-1900;

NoD2+=(NoY2\*365);

NoD2+=(NoY2/4);

switch(\*(date2+1))

{

case(12):NoD2+=30;

case(11):NoD2+=31;

case(10):NoD2+=30;

case(9):NoD2+=31;

case(8):NoD2+=31;

case(7):NoD2+=30;

case(6):NoD2+=31;

case(5):NoD2+=30;

case(4):NoD2+=31;

case(3):NoD2+=28;

case(2):NoD2+=31;

case(1):break;

}

NoD2+=(\*(date2)-1);

int NoD=(NoD1>NoD2)?NoD1-NoD2:NoD2-NoD1;

printf("The number of days between the two dates is %d",NoD);

}

**Output**

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ gcc a5.4.c

cseb80@jtl12-HP-285-Pro-G2-MT:~/Assignment1$ ./a.out

Enter the first date (dd mm yyyy): 10 02 2010

Enter the second date (dd mm yyyy): 5 11 2008

The number of days between the two dates is 462