

Extralab#9

Extralab#9 (cont)

```
> else{
    printf("Both are not equal\n");
}
printf("Multiplication of matrices is: \n");
int ans_array[n][n];
int sum = 0;
for (int i = 0; i < n; i++){
    for (int j = 0; j < n; j++){
        for (int k = 0; k < n; k++){
            sum += array1[i][k]*array2[k][j];
        }
        ans_array[i][j] = sum;
        sum = 0;
    }
}
for (int i = 0; i < n; i++){
    for (int j = 0; j < n; j++){
        printf("%d ", ans_array[i][j]);
    }
    printf("\n");
}
int sum_matrix = 0;
for (int i = 0; i < n; i++){
    for (int j = 0; j < n; j++){
        if (i==j){
            sum_matrix += ans_array[i][j];
        }
    }
}
printf("Sum of the diagonal is %d", sum_matrix);
}
```

Extralab#10

```
#include <stdio.h>
#include <string.h>
int main(){
    char sentence1 [255], sentence2 [255];
    printf ("Input sentence1: ");
    gets(sentence1);
    printf ("Input sentence2: ");
    gets(sentence2);
    printf ("String is longer than string -
2?");
    fputs( strlen(sentence1) > strlen -
(sentence2) ? " true" : " false", stdout);
    printf ("\n String has more vowel than
string 2?");
}
```

```

#include <stdio.h>
int main(){
    int n;
    printf ("enter n: ");
    scanf ( " %d", &n);
    int array1 [n] [n] ,array 2[n ][n];
    for (int i = 0;i < n;i++){
        for (int j = 0;j < n;j++){
            printf ("Enter element for
array1 [%d ][%d]: ", i+1,j+1);
            scanf( " %d", &array1[ i
i][j]);
        }
    }
    printf ("\n ");
    for (int i = 0;i < n;i++){
        for (int j = 0;j < n;j++){
            printf ("Enter element for
array2 [%d ][%d]: ", i+1,j+1);
            scanf( " %d", &array2[ i
i][j]);
        }
    }
    int count = 0;
    for (int i = 0;i < n;i++){
        for (int j = 0;j < n;j++){
            if (array 1[i][j] ==
array2 [i] [j]){
                count++;
            }
        }
    }
    for (int i = 0;i < n;i++){
        for (int j = 0;j < n;j++){
            printf ("%d " ,array -
1[i ][j]);
        }
        printf ("\n ");
    }
    printf ("\n ");
    for (int i = 0;i < n;i++){
        for (int j = 0;j < n;j++){
            printf ("%d " ,array -
2[i ][j]);
        }
        printf ("\n ");
    }
    if (count == n * n){
        printf ("Both are equal \n");
    }
}

```



Extralab#10 (cont)

```
> int count_string1 = 0;
int c = 0;
while(sentence1[c] != '\0'){
    if (sentence1[c] == 'a' || sentence1[c] == 'A'
    || sentence1[c] == 'e' || sentence1[c] == 'E'
    || sentence1[c] == 'i' || sentence1[c] == 'I'
    || sentence1[c] == 'o' || sentence1[c] == 'O'
    || sentence1[c] == 'u' || sentence1[c] == 'U'){
        count_string1++;
    }
    c++;
}
int count_string2 = 0;
int d = 0;
while(sentence1[d] != '\0'){
    if (sentence1[d] == 'a' || sentence1[d] == 'A'
    || sentence1[d] == 'e' || sentence1[d] == 'E'
    || sentence1[d] == 'i' || sentence1[d] == 'I'
    || sentence1[d] == 'o' || sentence1[d] == 'O'
    || sentence1[d] == 'u' || sentence1[d] == 'U'){
        count_string2++;
    }
    d++;
}
fputs(count_string1 > count_string2 ? " true" : " false", stdout);
int first[26] = {0}, second[26] = {0};
int e = 0;
// Calculating frequency of characters of first string
while (sentence1[e] != '\0'){
    first[sentence1[e] - 'a']++;
    e++;
}
int f = 0;
while (sentence1[f] != '\0'){
    first[sentence1[f] - 'a']++;
    f++;
}
// Comparing frequency of characters
int count_similar = 0;
for (int c = 0; c < 26; c++){
    for (int d = 0; d < 26; d++){
        if (first[c] == second[d]){
            count_similar++;
        }
    }
}
```

Extralab#10 (cont)

```
>     }
    }
}
if (count_similar != 0){
    printf("\nThe strings are anagrams.\n");
}
else{
    printf("\nThe strings are not anagrams.\n");
}
return 0;
}
Input sentence1: cineman
Input sentence2: iceman
String is longer than string2? true
String has more vowel than string2? false
The strings are anagrams.
```