**1,Calculate the area of square or circle based on the shape ‘S’ for Square and ‘C’ for Circle.**

Sample Input 1:  
Shape = ‘S’  
Size = 4  
Sample Output 1:  
Area of Square = 16

Sample Input 2:  
Shape = ‘C’  
Size = 4  
Sample Output 2:  
Area of Circle = 50.24

#include <stdio.h>

#include <math.h>

int main() {

char shape;

float size;

// Get input from the user

printf("Enter the shape (S for Square, C for Circle): ");

scanf("%c", &shape);

printf("Enter the size: ");

scanf("%f", &size);

// Calculate and display the area based on the shape

if (shape == 'S' || shape == 's') {

float area\_square = size \* size;

printf("Area of Square = %.2f\n", area\_square);

} else if (shape == 'C' || shape == 'c') {

float area\_circle = M\_PI \* size \* size; // Using the constant PI from math.h

printf("Area of Circle = %.2f\n", area\_circle);

} else {

printf("Invalid input for shape. Please enter 'S' or 'C'.\n");

}

return 0;

}

**Given a sorted array having duplicate elements. Print the elements with its frequency having more than one appearance.**

Sample Input:  
N = 12  
Array = {1,1,1,2,4,4,4,4,5,6,9,9}  
Sample Output:  
1- >3,4->4,9->2

#include <stdio.h>

int main() {

int N;

printf("Enter the size of the array: ");

scanf("%d", &N);

int arr[N];

printf("Enter the sorted array elements: ");

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

scanf("%d", &arr[i]);

}

// Iterate through the array to find elements with frequency more than one

int current\_element = arr[0];

int frequency = 1;

for (int i = 1; i <= N; i++) {

if (i < N && arr[i] == current\_element) {

frequency++;

} else {

if (frequency > 1) {

printf("%d->%d, ", current\_element, frequency);

}

if (i < N) {

current\_element = arr[i];

frequency = 1;

}

}

}

return 0;

}

**Given a sentence and screen length. Justify the sentence according to the screen length by replacing space with stars.**

Sample Input 1:  
Sentence = Welcome to Zoho Corporation  
Screen length = 34  
Sample Output 1:  
Welcome\*\*\*\*to\*\*\*Zoho\*\*\*Corporation

Sample Input 2:  
Sentence = Welcome to Zoho Corporation  
Screen length = 36  
Sample Output 2:  
Welcome\*\*\*\*to\*\*\*\*Zoho\*\*\*\*Corporation

#include <stdio.h>

#include <string.h>

void justifySentence(char sentence[], int screenLength) {

int len = strlen(sentence);

int spaceCount = 0;

// Count the number of spaces in the sentence

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

if (sentence[i] == ' ') {

spaceCount++;

}

}

// Calculate the number of spaces to be replaced with stars

int starsToAdd = screenLength - len + spaceCount;

// Replace spaces with stars to justify the sentence

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

if (sentence[i] == ' ' && starsToAdd > 0) {

int stars = (starsToAdd / spaceCount) + 1;

for (int j = 0; j < stars; j++) {

printf("\*");

}

starsToAdd -= stars;

} else {

printf("%c", sentence[i]);

}

}

printf("\n");

}

int main() {

char sentence[100];

int screenLength;

// Get input from the user

printf("Enter the sentence: ");

fgets(sentence, sizeof(sentence), stdin);

printf("Enter the screen length: ");

scanf("%d", &screenLength);

// Remove the newline character from the input buffer

getchar();

// Justify the sentence and print the result

justifySentence(sentence, screenLength);

return 0;

}

Your answer

Submit

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