Names: Day 17– functions

CS100 – Sep 26, 2022

Turn in the code from questions 1 and 2.

1. Update mode.c to count the number of times the name of a day appears. Assume each input is a 3-letter day code as in this prompt.

printf("Enter day string as Sat, Sun, Mon, Tue, Wed, Thu, Fri, one on each line\n");

Ex: if your input file is:

Sat

Mon

Mon

Tue

Wed

Fri

Fri

Sat

Fri

Tue

The output should be:

Sun is counts[0]=0

Mon is counts[1]=2

Tue is counts[2]=2

Wed is counts[3]=1

Thu is counts[4]=0

Fri is counts[5]=3

Sat is counts[6]=2

Hints: 1) Remove lines 24-39 since we are not looking to find the day with the highest occurrence. 2) Instead of scanning an integer, you are scanning a string. 3) Instead of an array with 11 buckets, you have an array of 7 buckets (one for each day):

int numDays = 7;

int counts[7] = { 0 }; // accessible: 0-10, all init to 0

char day[4];

Bonus: Can you accomplish this without 7 “if strcmp” statements?

1. Add a function to the following code that takes the coordinates of two points and returns the distance between the two points. The two points are represented by integers x of the first point, y of the first point, x on the second point and y on the second point in this order

Hint: Text

Description automatically generated

#include <stdio.h>

#include <stdlib.h>

#include <math.h>

int main(int argc, char \*\* argv) {

int x1,x2,y1,y2;

printf("Enter 4 integers separated by spaces:");

scanf("%d %d %d %d",&x1,&x2,&y1,&y2);

double pointDistance=dist(x1,y1,x2,y2);

printf("\ndistance is %lf\n",pointDistance);

//Function that takes 4 integers arguments