Question:

The temperature in Chennai exists somewhere between 280C to 330C in a particular week. The temperature in Delhi is 8 0C lesser than in Chennai. Likewise, the temperature in Haveri is 5 0C more than that of Chennai. Write a C program to find the temperature of Gangtok for a particular week, which is the temperature difference between Delhi and Haveri. Get the temperature of Chennai ( 0C) as input for the week of 7 days and the temperature of Gangtok ( 0C) as output for the week of 7 days. Implement the program using arrays and validate the rules.

Answer:

#include <stdio.h>

#define DAYS 7

int main() {

int chennai[DAYS], delhi[DAYS], haveri[DAYS], gangtok[DAYS];

int i;

printf("Enter the temperature of Chennai for the week:\n");

for (i = 0; i < DAYS; i++) {

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

if (chennai[i] < 28 || chennai[i] > 33) {

printf("Invalid temperature for Chennai. Temperature should be between 28C and 33C.\n");

return 1;

}

}

for (i = 0; i < DAYS; i++) {

delhi[i] = chennai[i] - 8;

haveri[i] = chennai[i] + 5;

}

for (i = 0; i < DAYS; i++) {

gangtok[i] = haveri[i] - delhi[i];

}

printf("\nTemperature of Gangtok for the week:\n");

for (i = 0; i < DAYS; i++) {

printf("%dC ", gangtok[i]);

}

printf("\n");

return 0;

}