

## Digital assignment 2

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### Question:

The temperature in Chennai exists somewhere between 28°C to 33°C in a particular week. The temperature in Delhi is 8°C lesser than in Chennai. Likewise, the temperature in Haveri is 5°C 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 (°C) as input for the week of 7 days and the temperature of Gangtok (°C) 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;  
}
```