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| **KING SAUD UNIVERSITY****COLLEGE OF COMPUTER AND INFORMATION SCIENCES****COMPUTER SCIENCE DEPARTMENT** |
| **CSC215** | **Lab2****C Basics** | **2nd Semester 1436-1437** |

Write a complete c program that converts temperatures either from Fahrenheit to Celsius or from Celsius to Fahrenheit for given city according to the user’s choice. Your program should read the name of city , day and temperature, then display the temperature as the following format: the first 3 characters of the day , city and converted temperature as shown in sample run.

**Note**: Formula to convert from Celsius to Fahrenheit: [°F] = 9/5 [°C] + 32. If the choice entered by the user is not 1 or 2 , the program should display “Wrong choice “message. Use the string functions for concatenate the name city and day in one string separated by ‘,’

**Sample run:**



Name your file using the following naming convention:

* “Lab2\_YourFirstName\_YourLastName.c"
* Don’t forget to move to your own directory
* Compile your code and execute it.
* Show the program to your lab instructor before you leave.

**Answer:**

#include <stdio.h>

#include <string.h>

int main() {

 float cel, fah;

 int choice;

 char city[20];

 char day[20];

 char str[50]; // for combining day and city

 printf("Enter the day: ");

 scanf("%s", day);

 printf("Enter the name of city: ");

 scanf("%s", city);

 printf("1:Celsius to Fahrenheit\n");

 printf("2:Fahrenheit to Celsius\n");

 printf("Enter your choice > ");

 scanf("%d", &choice);

 strncpy(str, day, 3);

 str[3] = '\0';

 strcat(str, ",");

 strcat(str, city);

 if (choice == 1)

 {

 printf("Enter Celsius >");

 scanf(" %f", &cel);

 fah = 9.0 / 5 \* cel + 32;

 printf(" %s : The temp in fahrenheit = %.2f F\n", str, fah);

 }

 else if (choice == 2)

 {

 printf("Enter Fahrenheit > ");

 scanf("%f", &fah);

 cel = 5.0 / 9 \* (fah - 32);

 printf(" %s : The temp in celsius= %.2f C\n", str, cel);

 }

 else

 printf("wrong choice\n");

 return 0;

}