

# SCT\_SD\_1

## TASK 1:

Create a program that converts temperature between Celsius, Fahrenheit and Kelvin scales.

### Source Code: (PYTHON)

```
# Temperature conversion program
unit = input("Enter the default temperature scale
(Kelvin(K)/Celsius(C)/Fahrenheit(F)): ").strip().upper()
temp = float(input("Enter temperature: "))

if unit == 'K':
    nt1 = round((temp - 273.15), 1) # Kelvin to Celsius
    nt2 = round(((9 * nt1) / 5) + 32, 1) # Celsius to Fahrenheit
    print(f"{temp} K = {nt1} C")
    print(f"{temp} K = {nt2} F")

elif unit == 'C':
    nt3 = round((temp + 273.15), 1) # Celsius to Kelvin
    nt4 = round(((temp * 9) / 5) + 32, 1) # Celsius to Fahrenheit
    print(f"{temp} C = {nt3} K")
    print(f"{temp} C = {nt4} F")

elif unit == 'F':
    nt5 = round(((temp - 32) * 5 / 9), 1) # Fahrenheit to Celsius
    nt6 = round((273.15 + nt5), 1) # Celsius to Kelvin
    print(f"{temp} F = {nt6} K")
    print(f"{temp} F = {nt5} C")

else:
    print("Invalid Choice!")
```

## Output:

```
/usr/bin/python3 /Users/ayushghosh/Desktop/SCT_SD/SCT_SD_1.py
● ayushghosh@Ayushs-MacBook-Air SCT_SD % /usr/bin/python3 /Users/ayushghosh/Desktop/SCT_SD/SCT_SD_1.py
Enter the default temperature scale (Kelvin(K)/Celsius(C)/Fahrenheit(F)): K
Enter temperature: 40
40.0 K = -233.1 C
40.0 K = -387.6 F
● ayushghosh@Ayushs-MacBook-Air SCT_SD % /usr/bin/python3 /Users/ayushghosh/Desktop/SCT_SD/SCT_SD_1.py
Enter the default temperature scale (Kelvin(K)/Celsius(C)/Fahrenheit(F)): C
Enter temperature: 273
273.0 C = 546.1 K
273.0 C = 523.4 F
⊗ ayushghosh@Ayushs-MacBook-Air SCT_SD % F
zsh: command not found: F
● ayushghosh@Ayushs-MacBook-Air SCT_SD % /usr/bin/python3 /Users/ayushghosh/Desktop/SCT_SD/SCT_SD_1.py
Enter the default temperature scale (Kelvin(K)/Celsius(C)/Fahrenheit(F)): F
Enter temperature: 0
0.0 F = 255.3 K
0.0 F = -17.8 C
● ayushghosh@Ayushs-MacBook-Air SCT_SD % /usr/bin/python3 /Users/ayushghosh/Desktop/SCT_SD/SCT_SD_1.py
Enter the default temperature scale (Kelvin(K)/Celsius(C)/Fahrenheit(F)): E
Enter temperature: 5
Invalid Choice!
○ ayushghosh@Ayushs-MacBook-Air SCT_SD %
```