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1 #initial list to store conversion
2 history=[]
3 #conversion logic for temprature
4 ktoc = lambda a:a+273.15
5 ctok = lambda a:a-273.15
6 ctof = lambda a:9.0/5.0 * a + 32
7 ftoc = lambda a:(a - 32) / 1.8
8 ftok = lambda a:273.5 + ftoc(a)
9 ktof = lambda a: 1.8*(ctok(a)) + 32
10 #infinite loop for menu driven approach
11 while(1):
12     print("Main Menu".center(40,"#"))
13     ch=int(input("1.Conversion\n2.History\n3.EXIT\nEnter your choice(int only):"))
14     if ch==1:#conversion based on user choice
15         n=input("Enter temperature you would like to convert with unit(Eg:20C,50.00k...):")
16         val=float(n[:-1])
17         unit=n[-1].upper()
18         to=input("Enter the unit to which u wanna convert(c/f/k)").upper()
19         if unit=="K" and to=="C":
20             ans=ktoc(val)
21         elif unit=="K" and to=="F":
22             ans=ktof(val)
23         elif unit=="C" and to=="F":
24             ans=ctof(val)
25         elif unit=="C" and to=="K":
26             ans=ctok(val)
27         elif unit=="F" and to=="C":
28             ans=ftoc(val)
29         elif unit=="F" and to=="K":
30             ans=ftok(val)
31         elif unit==to:
32             print("Something is really wrong with you!!!!")
33             continue
34         else:
35             print("Invalid input!!!")
36             continue
37         #save the conversion in tuple and append to list
38         print("Ans:"+str(ans)+str(to))
39         x=[val,unit,"to",round(ans,3),to]
40         history.append(tuple(x))
41     elif ch==2:#print all the executed conversions
42         c=input("1.Order by from-value\n2.Order by to-value\nEnter your choice:")
43         print("😊=H=I=S=T=O=R=Y".center(40,"="))
44         if c=='1':#ordered by from-value
45             print(*sorted(history,key=lambda x:x[0]),sep="\n")
46         elif c=='2':#ordered by to-value
47             print(*sorted(history,key=lambda x:x[3]),sep="\n")
48         else:
49             print("Invalid input,kid!!!!")
50     elif ch==3:
51         break
52     else:
53         print("Whats wrong with you!!!!")

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