

```
1 def temperature_converter():
2     try:
3         value = float(input("Enter the temperature
value: "))
4         source_unit = input("Enter the source unit (C
for Celsius, F for Fahrenheit): ").upper()
5         target_unit = input("Enter the target unit (C
for Celsius, F for Fahrenheit): ").upper()
6
7         if source_unit == 'C' and target_unit == 'F':
8             result = (value * 9/5) + 32
9         elif source_unit == 'F' and target_unit == 'C
':
10             result = (value - 32) * 5/9
11         else:
12             print("Unsupported unit conversion.")
13             return
14
15         print(f"Result: {result:.2f} {target_unit}")
16
17     except ValueError:
18         print("Invalid input. Please enter a numeric
value.")
19     except Exception as e:
20         print(f"An error occurred: {e}")
21
22
23 def length_converter():
24     try:
25         value = float(input("Enter the length value
: "))
26         source_unit = input("Enter the source unit (M
for meters, F for feet): ").upper()
27         target_unit = input("Enter the target unit (M
for meters, F for feet): ").upper()
28
29         if source_unit == 'M' and target_unit == 'F':
30             result = value * 3.28084
31         elif source_unit == 'F' and target_unit == 'M
':
32             result = value / 3.28084
```

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33         else:
34             print("Unsupported unit conversion.")
35             return
36
37         print(f"Result: {result:.2f} {target_unit}")
38
39     except ValueError:
40         print("Invalid input. Please enter a numeric
value.")
41     except Exception as e:
42         print(f"An error occurred: {e}")
43
44
45 def weight_converter():
46     try:
47         value = float(input("Enter the weight value
: "))
48         source_unit = input("Enter the source unit (
KG for kilograms, LB for pounds): ").upper()
49         target_unit = input("Enter the target unit (
KG for kilograms, LB for pounds): ").upper()
50
51         if source_unit == 'KG' and target_unit == 'LB
':
52             result = value * 2.20462
53         elif source_unit == 'LB' and target_unit == '
KG':
54             result = value / 2.20462
55         else:
56             print("Unsupported unit conversion.")
57             return
58
59         print(f"Result: {result:.2f} {target_unit}")
60
61     except ValueError:
62         print("Invalid input. Please enter a numeric
value.")
63     except Exception as e:
64         print(f"An error occurred: {e}")
65
66
```

```
67 def main():
68     print("Unit Converter")
69     print("1. Temperature Converter")
70     print("2. Length Converter")
71     print("3. Weight Converter")
72
73     choice = input("Enter your choice (1, 2, or 3
74 ): ")
75     if choice == '1':
76         temperature_converter()
77     elif choice == '2':
78         length_converter()
79     elif choice == '3':
80         weight_converter()
81     else:
82         print("Invalid choice. Please enter 1, 2, or
83 3.")
84
85 if __name__ == "__main__":
86     main()
87
```