Data type converter

November 1, 2024

[2]:
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"""2. Data Type Converter
Concepts: Data types, structures, functions
Task: Create functions to convert data types (e.g., string to int, float to int)␣
 ↪and ensure error handling for incompatible conversions.
Goal: Practice with data types, type conversion, and error handling.
"""
```

[2]:
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'2. Data Type Converter\nConcepts: Data types, structures, functions\nTask:
Create functions to convert data types (e.g., string to int, float to int) and
ensure error handling for incompatible conversions.\nGoal: Practice with data
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[35]:
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## to make a "data type converter we have to make sure the error handling␣
 ↪because as we knew we can't convert string into int that make an Error.

#to prevent error:
def safe_convert(conversion_func, value, error_message = "Invalid Input"):

    try:
        return conversion_func(value)
    except ValueError:
        return error_message

#Converter functions :
s_to_f = lambda x: safe_convert(float, x, "Invalid input for float")
f_to_s = lambda x: str(x)
i_to_s = lambda x: str(x)
s_to_i = lambda x: safe_convert(int, x, "Invalid input for integer value")

while True:
    print("1. Convert string to float")
    print("2. Convert float to string")
    print("3. Convert integer to string")
    print("4. Convert string to integer")
    print("5. Exiting from programme")

    choice = input("choose between 1 to 5")
```

```
    if choice == "1":
        x = input("Enter a string you want to conevert")
        print(s_to_f(x))

    elif choice == "2":
        x = input("Enter a float you want to conevert")
        print(f_to_s(x))

    elif choice == "3":
        x = input("Enter a integer you want to conevert")
        print(i_to_s(x))

    elif choice == "4":
        x = input("Enter a string you want to conevert")
        print(s_to_i(x))

    elif choice == "5":
        break
        print("Exiting from programme")

else:
    print("Invalid input")
```

```
1. Convert string to float
2. Convert float to string
3. Convert integer to string
4. Convert string to integer
5. Exiting from programme

choose between 1 to 5 5
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[36]:
```
#to prevent error:
def safe_convert(conversion_func, value, error_message = "Invalid Input"):

    try:
        return conversion_func(value)
    except ValueError:
        return error_message


def s_to_i(x):
    return safe_convert(float, x, "Invalid input for float")

def f_to_s(x):
    return str(x)

def i_to_s(x):
```

```
    return str(x)

def s_to_i(x):
    return safe_convert(int, x, "Invalid input for integer value")

while True:
    print("1. Convert string to float")
    print("2. Convert float to string")
    print("3. Convert integer to string")
    print("4. Convert string to integer")
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    choice = input("choose between 1 to 5")

    if choice == "1":
        x = input("Enter a string you want to conevert")
        print(s_to_f(x))

    elif choice == "2":
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    elif choice == "3":
        x = input("Enter a integer you want to conevert")
        print(i_to_s(x))

    elif choice == "4":
        x = input("Enter a string you want to conevert")
        print(s_to_i(x))

    elif choice == "5":
        break
        print("Exiting from programme")

else:
    print("Invalid input")
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1. Convert string to float
2. Convert float to string
3. Convert integer to string
4. Convert string to integer
5. Exiting from programme

choose between 1 to 5 5
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