

# Week 1 Summary – Python Basics & Temperature Converter

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During the first week I focused on core Python programming fundamentals:

- Learned about variables, data types, operators, and input/output.
- Practiced conditional statements (if–else) and loops (while) for program control.
- Added error handling with try–except to make scripts reliable.

## Hands-On Projects

1. Temperature Converter • Accepts user input like 23.5C or 75F, or a number plus a separate unit prompt. • Converts Celsius ↔ Fahrenheit using helper functions `c_to_f()` and `f_to_c()`. • Uses formatted output (`f"{value:.2f}"`) and catches invalid input gracefully.

2. Average Temperature Calculator • Collects multiple temperature readings from the user. • Uses a while loop to keep asking until the user types q to quit. • Stores all valid numeric inputs in a list, then computes and prints the average temperature.

Key Takeaways • Writing small, functional scripts reinforces Python basics. • Input validation and exception handling are essential for a smooth user experience. • Combining loops, lists, and built-in functions like `sum()` and `len()` makes simple data analysis (like an average) quick and efficient.