Week 1

Ideas:
- Create a **simple chat bot**. This could be for a specific purpose for example, banking help bot.
- **Personalised Greetings System**: A program that gathers a user's name, favourite colour, and age, then offers a personalised greeting and comment based on the input.
- **Shopping Budget Tool**: An application that assists users in managing their shopping budget, calculating remaining funds, and warning if they've overspent.

Beginning Programming: Personalised Chat Bot (UniBuddy)

[Case Study Story] --> Imagine the first day of university for a freshman named Alex. Alex is excited but also overwhelmed by the vast campus, numerous courses, and the sea of new faces. To aid new students like Alex, the university's IT department has developed a personalised chatbot. This chatbot, named "UniBuddy", is designed to make the transition smoother for freshmen. Upon accessing the chatbot, Alex is prompted to enter their name, favourite colour, and age. Based on this input, UniBuddy offers a personalised greeting. For instance, if Alex's favourite colour is blue, UniBuddy might suggest joining the university's "Blue Art Club". If Alex is 18, the chatbot might provide information about freshman-specific events. The chatbot also offers a feature where Alex can input specific queries, like "Where is the library?" or "How do I join the debate club?", and UniBuddy responds with relevant information, all while adhering to a friendly tone, using string transformation methods to ensure the responses feel personalised and engaging.

Topics to be consolidated

- Setting up and navigating Python IDEs, with emphasis on VS Code.
- Gathering and displaying user data using Python's basic input/output functions.
- Recognizing and manipulating core Python data types.
- Implementing decision-making constructs and control structures.
- Conducting basic arithmetic operations and logical comparisons in Python.
- Practical applications of programming: crafting personalised responses and suggestions.
- Embarking on a career path in data science and Python programming.