Choices

Thomas Schwarz, SJ

No switch statement

- Python has no switch statement
  - Probably because a good switch statement cannot be made to conform to the Python philosophy
  - So, we use the if-else construct
    - which is cleaner, but more verbose

A menu

- A favorite of teachers of programming
  - Task:
    - Ask the user for two operands
    - Then present a list of operations
    - Let the user select an operation
    - Then perform the operation

A menu

- First we ask for the operands

```
print('Welcome to our arithmetic program')
operand_one = float(input('Please enter the first operand: '))
operand_two = float(input('Please enter the second operand: '))
```

A menu

- Then we display the menu
  - Recall that three quotation marks allow us to use newlines in a string

```
print('Select the operation: ')
print('''Enter "+" for addition
Enter "-" for subtraction
Enter "*" for multiplication
Enter "/" for division
Enter "^" for exponentiation''')
answer = input('Your choice ')
```

- I admit, ^ for exponentiation is just to underline that ^ is not the Python exponentiation

A menu

- The action is coded as an if-elif chain with an else clause for the default action

```
if answer == '+':
    print(operand_one + operand_two)
elif answer == '-':
    print(operand_one - operand_two)
elif answer == '*':
    print(operand_one * operand_two)
elif answer == '/':
    print(operand_one / operand_two)
elif answer == '^':
    print(operand_one ** operand_two)
else:
    print('I could not understand your choice.')
```