



## FUN WITH PYTHON COURSE CONTENT

### INTRODUCTION TO PYTHON

- WHY PYTHON
- PYTHON INSTALLATION AND ENVIRONMENT
- WORKING WITH IDLE

### CALCULATIONS AND VARIABLES

- CALCULATING WITH PYTHON
- PYTHON OPERATORS
- ORDER OF OPERATION
- USING VARIABLES

### STRINGS, LISTS, TUPLES

- CREATING AND HANDLING STRINGS
- EMBEDDING VALUES & MULTIPLYING STRINGS
- POWER OF LISTS
- ADDING ITEMS TO AND REMOVING ITEMS FROM LIST
- LIST ARITHMETIC
- TUPLES

### DRAWING WITH TURTLES

- USING PYTHON'S TURTLE MODULE
- CREATING CANVAS
- MOVING THE TURTLE

### ASKING QUESTIONS WITH IF AND ELSE

- IF STATEMENTS
- IF-THEN-ELSE STATEMENTS
- IF AND ELIF STATEMENTS
- COMBINING CONDITIONS

### GOING LOOPY

- FOR LOOPS
- WHILE LOOPS

### RECYCLING YOUR CODE WITH FUNCTIONS AND MODULES

- USING FUNCTIONS
- VARIABLES AND SCOPE
- USING MODULES
- BUILT-IN FUNCTIONS

### FILE HANDLING

- CREATING FILES
- OPENING FILES
- WRITING TO FILES

### INTRODUCTION TO OOPS

- CLASSES
- ADDING OBJECTS TO CLASSES
- DEFINING FUNCTIONS AND CLASSES
- WHY USE CLASSES AND OBJECTS

## WRITING SOME COOL PROGRAMS

1. MATH APPLICATION
2. CAESAR CIPHER
3. GUESSING GAME
4. RANDOM SPIRALS
5. ROCK PAPER SCISSORS
6. ROLLING DICE
7. KALEIDOSCOPE

