

# Using Lists in Python

## Challenge 1: Using lists with favourite foods

- Create a list called **food** containing your 5 favourite foods. Use quotes for strings
- Use print to display the whole list.
- Print the items in the index range 1 and 2
- Print the items at index range 3 and 5.
- Append two more foods to the end of your list. Print the whole list.
- Delete the item at index 4.

## Challenge 2: Using lists and your favourite sports

- Create a list called **sport** containing ["basketball", "football", "netball", "swimming"]
- Use print to display the whole list.
- What will **print(sport[1:2])** display? Try it.
- Append two more sports onto the end of the list.
- What will **print(sport[2:5])** display? Try it.
- Delete the item at index 1. Print out the whole list.

## Challenge 3: Using lists of numbers

- Create a list containing 6 integer numbers.
- Sort the list
- Reverse the order of the list
- Insert a number into the list
- Count the number of time a number appears in the list.

## Challenge 4: Lists with mixed data types

- Create a list called "myList" containing the 7 items: 5, 10, True, 15, "green", 25, "blue", 45
- Use print to display the list
- Delete the number 15 from the list
- Append the "red" and 40 to the end of the list
- Replace the number 10 with "black" (use del to delete and then myList.insert to insert "black")
- Make another list containing the following 3 items: "pink", "blue", 99
- Append this list to the end of myList
- Use print to display the list.

## Using FOR loops in Python

**Challenge 1** Write a program that creates a list called animals containing your 4 favourite animals and then use a for loop to display them one at a time on the screen.

**Challenge 2** You are stranded on a desert island. Write a program that creates a list of things you would take to the desert island. The program should then display each item a line at a time displaying "On my desert island I would like: " at the beginning of each line.

**Challenge 3** Write a program that creates the following list and then adds up all the numbers in the list and displays this answer.

```
myNumbers=[19,6,7,9,2,25,16]
```

**Challenge 4** Write a program that create the list containing the marks for 6 students in an exam. Write a program that finds the average mark.

```
myMarks=[55,76,98,34,21,23]
```

**Challenge 5** Write a program that finds the largest number in a list of numbers.

```
myNumbers=[19,6,7,9,2,25,16]
```

## For loops and range function in Python

Write a program that will use a "for" loop to display the numbers from 1 to 100 in steps of 5.

Write a program that will use a "for" loop to display your name 100 times on the screen and then says done.

Write a program that will use a "for" loop to display all the even numbers from 2 to 100

Write a program that will add together all the numbers between 1 and 20. Modify your program to ask the user to select the start and end values.

Write a program that prints the numbers from 1 to 16 together with the square of that number.

Write a program that prints out the 9 times table (up to 20x 9)

Write a program that asks the user which times table they want and then displays that table.

## For loops and strings in Python

Write a program that asks you to enter a name and then displays each letter of the name on a separate line.