

# Python 10 Worksheet: 1D Lists

Student Resource



Python Worksheet 10 - 1D Lists.docx



Python Worksheet 10 - 1D Lists.pdf

## Starter Activity

Here is some Python code that asks the user to enter their name and counts how many e's are in it. Unfortunately, the lines have all got jumbled up and the indentations are missing. Rearrange these lines and add any indentations that you need.

```
1  print(f"There are {count} e's in your name")
2  count = 0
3  while index < len(name):
4  if name[index] == "e":
5  index = index + 1
6  index = 0
7  name = input("What is your name? ")
8  while index < len(name):
9  count = count + 1
```

## Activity 1: Iterating over a list

1. Create a list of your favourite foods called food. With separate print statements, do the following:
  - a) print the first item in the list
  - b) print the third item in the list
  - c) print the last item in the list using len()

2. Create a list of countries that you would like to visit
  - a) Output the number of countries in your list using len()
  - b) Change the second element to "Italy" and print out the whole list

## Activity 2 : List Operations

1. Create list called colours that contains red, green, blue and orange
  - a) Ask the user to enter a colour and append it to the list
  - b) Print the list out
  - c) Ask the user to enter another colour and remove it from the list
  - d) Print the list out

What happens if the colour you try to remove is not in the list?

2. Write a program that:
  - a) asks the user to enter five colours using a loop and stores them in a list.
  - b) Print out the list using a simple print statement.
  - c) Asks the user to enter an index value and print the colour at that position.
3. Extend your solution to exercise 2
  - a) Ask the user to enter another colour at the end of the program
  - b) Only add it to the list if it is not already there

## Activity 3: Parallel Lists

Extend the example:

- a) Ask the user to enter a name and output their score
- b) Give an error message if the name is not found in the names list
- c) Output the name of the person who got the highest score