Word play

# Code snippet .

Creates a 2D list and displays the item held in row 1 and column 2. The output will be 6.

| 1  2  3  4 | scores = [["Fred", "Wilma", "Dino"],  [4, 5, 6]]  print(scores[1][2]) |
| --- | --- |

# Task . Accessing lists within lists

**Step 1**

Here is a 2D list containing different types of animals. Each list (row) has a unique type of animal. Copy this code into your development environment to use with these tasks.

| 1  2  3 | animals = [["Salmon", "Pollock", "Cod"],  ["Parrot", "Duck", "Wren"],  ["Camel", "Lion", "Tiger"]] |
| --- | --- |

**Step 2**

Write a line of code that will print all of the birds. Enter your completed code below:

|  | print(animals[1]) |
| --- | --- |

**Step 3**

Write a line of code that will print all of the mammals. Enter your completed code below:

|  | print(animals[2]) |
| --- | --- |

# Task . Accessing single items within two-dimensional lists

**Step 1**

Using the same two-dimensional list, write a line of code that will print Wren as output. Enter your completed code below:

|  | print(animals[1][2]) |
| --- | --- |

**Step 2**

Write a line of code that will print Pollock as output. Enter your completed code below:

|  | print(animals[0][1]) |
| --- | --- |

**Step 3**

Write a line of code that will print Camel as output. Enter your completed code below:

|  | print(animals[2][0]) |
| --- | --- |

# Task . Select an item at random

**Step 1**

Import the random integer function from the random library.

**Step 2**

Write some code that will select a random animal from the animals list.

**Hint:** You will need to generate two random numbers from within the list index range.

Enter your completed code below:

|  | from random import randint  animals = [["Salmon", "Pollock", "Cod"],  ["Parrot", "Duck", "Wren"],  ["Camel", "Lion", "Tiger"]]  num1 = randint(0,2)  num2 = randint(0,2)  print(animals[num1][num2]) |
| --- | --- |

**Step 3**

Make sure that you test your code a number of times to ensure that you have selected the correct index range.

# Explorer task .

Use selection to state whether the randomly selected animal is a fish, bird, or mammal. An example output would be:

A Parrot is a Bird

Enter your completed code below:

**Note to marker: learners will approach this in different ways. This is just one example.**

|  | from random import randint  animals = [["Salmon", "Pollock", "Cod"],  ["Parrot", "Duck", "Wren"],  ["Camel", "Lion", "Tiger"]]  num1 = randint(0,2)  num2 = randint(0,2)  animal = (animals[num1][num2])  if num1 == 0:  print(f"A {animal} is a Fish")  elif num1 == 1:  print(f"A {animal} is a Bird")  elif num1 == 2:  print(f"A {animal} is a Mammal") |
| --- | --- |