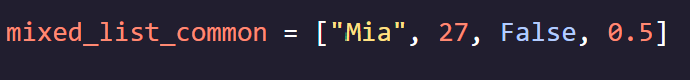
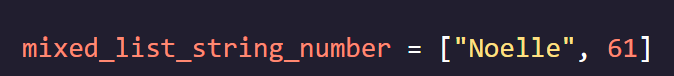
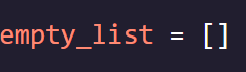
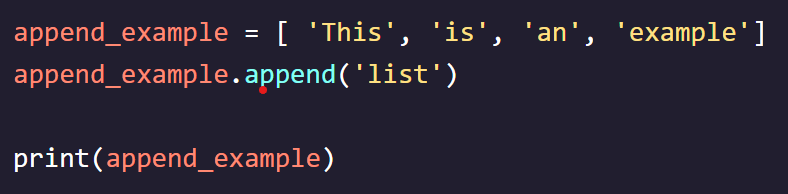
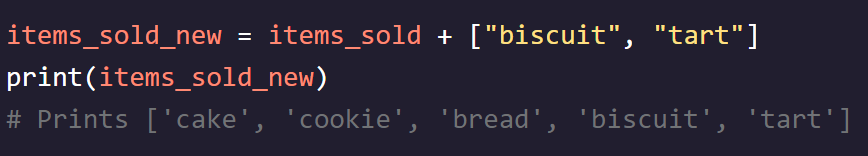
**Lists:**

* Allow us to work with a collection of data in sequential order
* Lists are denoted by [ ] brackets and each item is separated by a comma (,)
* Lists can store *int, float, bool,* and *string* values
* Lists can also combine data types to store together in a list
* Lists can also be empty to be filled in later  
    
    
  

**List Methods:**

* **Method** – built in functionality that allows us to create, manipulate, and delete data
* List methods follow the format of *list\_name.method()*
* ***.append()*** – allows us to add a single element to the end of a list
* **.*remove()*** – allows us to remove a sinlge specified value from a list  
  - Can be used to remove duplicate elements from a list as it removes only the first instance  
  - To use the *.remove()* function on a 2D list, call it on the sublist you are modifying and pass the value you want to remove in between the parenthesis
* ***List Concatenation (+)*** – allows us to add multiple items to a list by taking original list and appending multiple items to it using +   
  - List items HAVE to be in list form [ ] otherwise they cannot be appended



  
A computer screen shot of a program

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**Accessing List Elements:**

* ***Index*** – the location in the list of an element (begins at zero = ***zero indexed***)
* Can only use *int* as index value  
  - Can force results to be in *int* form by using ***int()*** around function - ***print(calls[int(4/2])***
* Can select a list element by using [ ] brackets and using number 1 less than (n-1) of desired number   
  - if we want list element 3, then we use ***print(calls[2])***
* ***Negative Index*** – Can use a negative number to access list elements from the end of the list  
  

**Modifying List Elements:**

* To modify a value in a list, reassign that value using the specific list index
* Works with negative indices as well
* To modify a value in a 2D list, access the specific index and reassign it a new value  
  A black background with text and a black square

  Description automatically generated with medium confidenceA computer screen with text and numbers

  Description automatically generated with medium confidence  
  A screenshot of a computer program

  Description automatically generated

**Two Dimensional Lists:**

* Lists can contain other lists (2D Lists)
* Used when we want to link multiple data points together as a single value
* 2D lists are accessed by specifying which index the entire [ ] sub list is in and then which index within the list we want to access  
  **A computer code with numbers

  Description automatically generated with medium confidence**A screenshot of a computer code

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