3. Working with a list & Making a table of values from a formula

3.1 Aim
(i) Set a variable primes to a list containing the numbers 2, 3, 5, 7, 11, and 13. Write out each list element in a for loop. Assign 17 to a variable p and add p to the end of the list. Print out the entire new list.
(ii) To write code that prints a nicely formatted table of t and y(t) values, where
$y(t) = v_0 t - (1/2)gt^2$, Use (n + 1) uniformly spaced t values throughout the interval $[0, 2v_0/g]$.
(a) Use a for loop to produce the table. (b) Add code with a while loop to produce the table.

3.2 Software Used
1. Anaconda Navigator

2. Jupyter Notebook

3.3 Pre Lab Questions
1. What is the range() function? Give example

2. What is the importance of indentation in python loops? Give example

3. Select which is true for FOR loop
a. Python's FOR loop used to iterates over the items of list, tuple, dictionary, set, or string

b. else clause of for loop is executed when the loop terminates naturally

c. else clause of for loop is executed when the loop terminates abruptly

d. We use a for loop when we want to perform a task indefinitely until a particular condition is met.

3.4 Program

3.4(a) Working with a list

3.4(b) Make a table of values from a formula

3.5 Observations

3.6 Post Lab Questions

1. Where are triple quoted strings used ("""").

2. What is the role of the 'continue' statement in a while loop.

3. Can If-else and while loop be used interchangeably. Explain.

3.7 Result

Thus, the python Programs were written and verified.