

Task0.py:

The runtime complexity of this program is $(O)1$, since we always look for the exact index numbers. Even if the input size gets bigger, the runtime will not get affected, since it still only need to work on the same index numbers.

Task1.py:

This program has 1 for loop, the runtime increases with the size of the inputs. Thus, the runtime complexity of this program is $(O)n$.

Task2.py:

This program contains 1 for loop and the size of the inputs does affect the runtime accordingly. For this, we have $(O)n$.

Inside the for loop, there are if-else statements. Each of these works on specific index numbers and wouldn't get affected by the inputs size. Thus, those are $(O)1$.

Since we have $(O)n + (O)1 \Rightarrow$ the program runtime is $(O)n$ as a conclusion.

Task3.py:

This program has 2 functions.

For function "CheckPhoneNum", there is 1 for loop, make it $(O)n$. Inside the for loop, there are if-else statements that works on specified indices, making it $(O)1$. Combining, we have $(O)n$ for the first function.

For the second function "CheckFixLine", there is also 1 for loop, making it $(O)n$, 1 if statement of (O) , making this second function to be $(O)n$ as well.

Overall, the program is $(O)n + (O)n = O(n)$

Task4.py

This program has 1 for loop that iterates through each row of each file. The size of inputs do affect the runtime complexity. The rest are if-else statements using fixed index numbers. Thus, this program is $(O)n$.