Week 2 task 4

In order to solve this bonus task I used math

First I have identified 4 common values (1, 7, 9, 0) that was often used.

The issue is I do not have any idea weather the value can be repeated per digits. And the length of the password can be the following (4, 5, 6, 7).

Because the digits can be repeated, so each position of the code has 4 possible digits.

The formula for the number of combinations with repetitions is nͬ, where n is the number of options for each position, and r is the number of positions.

for a 4 digit key code the formula is 4⁴ = 256 combinations or attempts

for a 5 digit key code the formula is 4⁵ = 1024

for a 6 digit key code the formula is 4⁶ = 4096

for a 7 digit key code the formula is 4⁷ = 16384

In order to find the number of attempts you must add the total number of combinations. The total number of attempts to get the code for this keypad is 21,760.