Part 3: What is Hashing?

Task 3.1: Hash a word by hand (no code for this part!)

First hash function

Replace each letter with its place in the alphabet:

G P N

Now add the numbers together:

Every time we follow this process for the acronym 'GPN', we will get the same number!

Now try hashing this word:

P N G

=

What number did you get? Is this a good thing? What happened here is called a collision!

Second hash function

Now try again but this time multiply the letter's place in the alphabet by its place in the word:

G P N

=

P N G

=

What do you notice?

Hint

You can use the table below to help find what number in the alphabet a letter is:

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Task 3.2: Hash your name

Follow the same process as the second hash function and try to hash your name!

★ Bonus 1.4: Does Method 2 always work? ★

Can you find a word that collides with GPN using our second hash function?

Hint

Collision is when 2 different words are hashed to the same number.

☑ CHECKPOINT ☑

If you can tick all of these off you can go to Part 4:

☐ Found the hash of GPN and PNG for both methods

☐ Found the hash value of your name