Exercise 131: Morse Code

(*15 Lines*)

Morse code is an encoding scheme that uses dashes and dots to represent numbers and letters. In this exercise, you will write a program that uses a dictionary to store the mapping from letters and numbers to Morse code. Use a period to represent a dot, and a hyphen to represent a dash. The mapping from letters and numbers to dashes and dots is shown in Table 6.1.

Your program should read a message from the user. Then it should translate each letter and number in the message to Morse code, leaving a space between each sequence of dashes and dots. Your program should ignore any characters that are not letters or numbers. The Morse code for `Hello, World!` is shown below:

```
.... . .-.. .-.. --- .-- --- .-. .-.. -..
```

Table 6.1 Morse Code Letters and Numbers

Letter	Code	Letter	Code	Letter	Code	Number	Code
A	.-	J	.---	S	...	1	.----
B	-...	K	-.-	T	-	2	..---
C	-.-.	L	.-..	U	..-	3	...--
D	-..	M	--	V	...-	4	....-
E	.	N	-.	W	.--	5	.....
F	..-.	O	---	X	-..-	6	-....
G	--.	P	.--.	Y	-.--	7	--...
H	....	Q	--.-	Z	--..	8	---..
I	..	R	.-.	0	-----	9	----.

Morse code was originally developed in the nineteenth century for use over telegraph wires. It is still used today, over 160 years after it was first created.