
The first option is doing the following exercises 11.12 and 11.13:

11.12 (*Telephone-Number Word Generator*) Standard telephone keypads contain the digits 0–9. The numbers 2–9 each have three letters associated with them, as is indicated by the following table:

Digit	Letter	Digit	Letter
2	A B C	6	M N O
3	D E F	7	P R S
4	G H I	8	T U V
5	J K L	9	W X Y

Many people find it difficult to memorize phone numbers, so they use the correspondence between digits and letters to develop seven-letter words that correspond to their phone numbers. For example, a person whose telephone number is 686-2377 might use the correspondence indicated in the above table to develop the seven-letter word "NUMBERS".

Businesses frequently attempt to get telephone numbers that are easy for their clients to remember. If a business can advertise a simple word for its customers to dial, then, no doubt, the business will receive a few more calls.

Each seven-letter word corresponds to exactly one seven-digit telephone number. The restaurant wishing to increase its take-home business could surely do so with the number 825-3688 (i.e., "TAKEOUT").

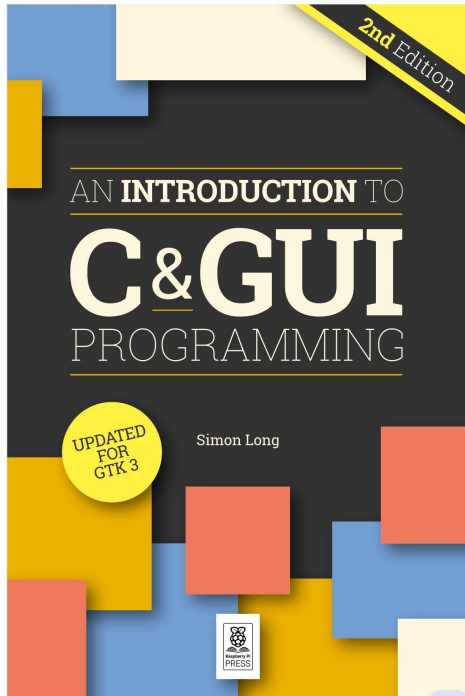
Each seven-digit phone number corresponds to many separate seven-letter words. Unfortunately, most of these represent unrecognizable juxtapositions of letters. It's possible, however, that the owner of a barbershop would be pleased to know that the shop's telephone number, 424-7288, corresponds to "HAIRCUT". A florist would, no doubt, be delighted to find that the store's telephone number, 356-9377, corresponds to "FLOWERS". A veterinarian with the phone number 738-2273 would be pleased to know that the number corresponds to the letters "PETCARE".

Write a C program that, given a seven-digit number, writes to a file every possible seven-letter word corresponding to that number. There are 2187 (3 to the seventh power) such words. Avoid phone numbers with the digits 0 and 1.

11.13 (*Project: Telephone-Number Word Generator Modification*) If you have a computerized dictionary available, modify the program you wrote in Exercise 11.12 to look up the words in the dictionary. Some seven-letter combinations created by this program consist of two or more words (e.g., the phone number 843-2677 produces "THEBOSS").

List Of English Words : <https://github.com/dwyl/english-words>

Option 2: In this option you are required to implement a single course management system. The system should allow the user to add, drop students and record their grades. In order to calculate the average grade for the course. However you are required to use GUI interfaces. There are many options to do this, one is to use GTK library which is explained in the following book:



Option 3: In this option you are required to implement a system uses SQLite library. The system should include commands to connect to the local database .db file. Also the system should include statements that manipulate the database. All CRUD operations must be implemented.

The Homepage: <https://www.sqlite.org/docs.html>

Option 4: In this option you are required to implement a game using Simple DirectMedia Layer SDL. One good reference is

An open source ebook: https://github.com/Hamza5/Learn-to-program-with-C_AR

This book explains SDL using a study case example.

In this option you are free to choose the logic of the game.