## Completed by:

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Data #4, (/1-hardComplexityChallenges/telephoneWordsByKestutis.php)

# Telephone Words

## **Challenge Description:**

Given a 7 digit telephone number, print out all the possible sequences of letters that can represent the given telephone number. Note that in a standard 12 key pad, 0 and 1 do not have any letters associated with them. They are to be treated as such, i.e. a 0/1 in the telephone number will be retained in the final word as well. You may use the following mapping between numbers and characters:

```
0 => 0
1 => 1
2 => abc
3 => def
4 => ghi
5 => jkl
6 => mno
7 => pqrs
8 => tuv
9 => wxyz
```

## Input sample:

Your program should accept as its first argument a path to a filename. The input file contains 7 digit telephone numbers, one per line.

4155230

#### **Output sample:**

Print out the words that can produce the telephone number, alphabetically sorted and comma delimited. eg.

g1jjad0,g1jjae0,g1jjaf0,g1jjbd0,g1jjbe0,g1jjbf0,g1jjcd0,g1jjce0,g1jjcf0,g1jkad0,g1jkae 0,q1jkaf0,q1jkbd0,q1jkbe0,q1jkbf0,q1jkcd0,q1jkce0,q1jkcf0,q1jlad0,q1jlae0,q1jlaf0,q1jl bd0,g1jlbe0,g1jlbf0,g1jlcd0,g1jlce0,g1jlcf0,g1kjad0,g1kjae0,g1kjaf0,g1kjbd0,g1kjbe0,g1 kjbf0,g1kjcd0,g1kjce0,g1kjcf0,g1kkad0,g1kkae0,g1kkaf0,g1kkbd0,g1kkbe0,g1kkbf0,g1kkcd0, g1kkce0,g1kkcf0,g1klad0,g1klae0,g1klaf0,g1klbd0,g1klbe0,g1klbf0,g1klcd0,g1klce0,g1klcf 0,g11jad0,g11jae0,g11jaf0,g11jbd0,g11jbe0,g11jbf0,g11jcd0,g11jce0,g11jcf0,g11kad0,g11k ae0, g11kaf0, g11kbd0, g11kbe0, g11kbf0, g11kcd0, g11kce0, g11kcf0, g11lad0, g11lae0, g11laf0, g1 llbd0,g1llbe0,g1llbf0,g1llcd0,g1llce0,g1llcf0,h1jjad0,h1jjae0,h1jjaf0,h1jjbd0,h1jjbe0, h1jjbf0,h1jjcd0,h1jjce0,h1jjcf0,h1jkad0,h1jkae0,h1jkaf0,h1jkbd0,h1jkbe0,h1jkbf0,h1jkcd 0, h1jkce0, h1jkcf0, h1jlad0, h1jlae0, h1jlaf0, h1jlbd0, h1jlbe0, h1jlbf0, h1jlcd0, h1jlce0, h1jl cf0, h1kjad0, h1kjae0, h1kjaf0, h1kjbd0, h1kjbe0, h1kjbf0, h1kjcd0, h1kjce0, h1kjcf0, h1kkad0, h1 kkae0, h1kkaf0, h1kkbd0, h1kkbe0, h1kkbf0, h1kkcd0, h1kkce0, h1kkcf0, h1klad0, h1klae0, h1klaf0, h1klbd0,h1klbe0,h1klbf0,h1klcd0,h1klce0,h1klcf0,h1ljad0,h1ljae0,h1ljaf0,h1ljbd0,h1ljbe 0,h11jbf0,h11jcd0,h11jce0,h11jcf0,h11kad0,h11kae0,h11kaf0,h11kbd0,h11kbe0,h11kbf0,h11k cd0, h11kce0, h11kcf0, h11lad0, h11lae0, h11laf0, h11lbd0, h11lbe0, h11lbf0, h11lcd0, h11lce0, h1 llcf0,iljjad0,iljjae0,iljjaf0,iljjbd0,iljjbe0,iljjbf0,iljjcd0,iljjce0,iljjcf0,iljkad0, iljkae0,iljkaf0,iljkbd0,iljkbe0,iljkbf0,iljkcd0,iljkce0,iljkcf0,iljlad0,iljlae0,iljlaf 0,i1jlbd0,i1jlbe0,i1jlbf0,i1jlcd0,i1jlce0,i1jlcf0,i1kjad0,i1kjae0,i1kjaf0,i1kjbd0,i1kj be0,ilkjbf0,ilkjcd0,ilkjce0,ilkjcf0,ilkkad0,ilkkae0,ilkkaf0,ilkkbd0,ilkkbe0,ilkkbf0,il kkcd0,i1kkce0,i1kkcf0,i1klad0,i1klae0,i1klaf0,i1klbd0,i1klbe0,i1klbf0,i1klcd0,i1klce0, i1klcf0,i1ljad0,i1ljae0,i1ljaf0,i1ljbd0,i1ljbe0,i1ljbf0,i1ljcd0,i1ljce0,i1ljcf0,i1lkad 0,i1lkae0,i1lkaf0,i1lkbd0,i1lkbe0,i1lkbf0,i1lkcd0,i1lkce0,i1lkcf0,i1llad0,i1llae0,i1ll af0,i111bd0,i111be0,i111bf0,i111cd0,i111ce0,i111cf0

Submit your solution in a file (some file name).(py2| c| cpp| java| rb| pl| php| tcl| clj| js| scala| cs| m| py3| hs| go| bash| lua) or use the online editor.