Problem:

Given an integer n, using phone keypad find out all the possible strings that can be made using digits of input n.

Return empty string for numbers 0 and 1.

Solution:

#include <string>

#include<iostream>

using namespace std;

string fun(int n){

if(n==1)

return "";

if(n==2)

return "abc";

if(n==3)

return "def";

if(n==4)

return "ghi";

if(n==5)

return "jkl";

if(n==6)

return "mno";

if(n==7)

return "pqrs";

if(n==8)

return "tuv";

if(n==9)

return "wxyz";

}

int keypad(int num, string output[]){

if(num==0)

return 1;

string s=fun(num%10);

int k= s.length();

int p=keypad(num/10,output);

int temp1=k,temp2=p,temp3=k\*p-1;

while(temp1--)

{

while(temp2--)

{

output[(temp3)--]=output[temp2]+s[temp1];

}

temp2=p;

}

return k\*p;

}