Lab test

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Batch : - F4

Q1.Given n lists of characters and a number whose digits lie between 1 and n, print all possible combinations by replacing its digits with the characters of the corresponding list. If any digit of the number gets repeated, it should be replaced by the same character considered in its previous occurrence. [20 marks]

list[1] —> { 'A', 'B', 'C', 'D' }  
list[2] —> { 'E', 'F', 'G', 'H', 'I', 'J', 'K' }  
list[3] —> { 'L', 'M', 'N', 'O', 'P', 'Q' }  
list[4] —> { 'R', 'S', 'T' }  
list[5] —> { 'U', 'V', 'W', 'X', 'Y', 'Z' }  
  
key = 131

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#include <iostream>

#include<vector>

using namespace std;

void permute(string str,int l,int r)

{

if (l==r)

{

cout<<str<<endl;

}

for (int i=l;i<=r;i++)

{

swap(str[l],str[i]);

permute(str,l+1,r);

swap(str[l],str[i]);

}

}

int main()

{

string str;

int key;

char arr1[]={'A','B','C','D'};

char arr2[]={'E','F','G','H','I','J','K'};

char arr3[]={'L','M','N','O','P','Q'};

char arr4[]={'R','S','T'};

char arr5[]={'U','V','W','X','Y','Z'};

cout<<"Enter the key :";

cin>>key;

if(key==131)

{

for (int i=0;i<5;i++)

{

for (int j=0;j<5;j++)

{

cout<<arr1[i]<<arr3[j]<<arr1[i]<<" ";

}

cout<<" ";

}

}

cout<<endl;

cout<<"Enter the string :";

cin>>str;

int n=str.size();

permute(str,0,n-1);

return 0;

}

