程序实现A={1,2,3},B={a,b};求BA

A和B的集合元素可以改变但A必须是数字，B必须是字母

代码：

#include<bits/stdc++.h>

using namespace std;

int myReplace(string &s,const string& s1,const string& s2);

int toN\_num(int a,int n1,int n2,int diff[]);//将a转化为n1进制储存在diff中

int main() {

fstream io("例8.2.txt",ios::in|ios::app);

string s,s\_num,s\_alp;//A用数字表示B用字母表示

io>>s;

for(int i=0; i<s.size(); i++) {

if(s[i]>='0'&&s[i]<='9')

s\_num+=s[i];

else if(s[i]>='a'&&s[i]<='z')

s\_alp+=s[i];

}

cout<<s\_num<<" "<<s\_alp<<endl;

string f("{}");

stringstream ss;/\*最后的BA={f..fn}\*/

ss<<"BA={";

for(int i=0; i<pow(s\_alp.size(),s\_num.size()); i++) {

f="{}";

int diff[s\_num.size()];

memset(diff,0,sizeof(diff));

toN\_num(i,s\_alp.size(),s\_num.size(),diff);//取不同用于赋值

for(int j=0; j<s\_num.size(); j++) {

stringstream temp;

temp<<"<"<<s\_num[j]<<","<<s\_alp[diff[j]]<<">";

if(j!=s\_num.size()-1)//不为最后一个加逗号

temp<<",";

f.insert(1+j\*6,temp.str());

// cout<<i<<"-"<<j<<":"<<temp.str()<<endl;

}//cout<<endl;

ss<<"f"<<i;

if(i!=pow(s\_alp.size(),s\_num.size())-1)

ss<<",";

else ss<<"}";

cout<<"f"<<i<<":"<<f<<endl;

io<<"f"<<i<<":"<<f<<endl;

}

cout<<ss.str()<<endl;

io<<ss.str()<<endl;

return 0;

}

int myReplace(string &s,const string& s1,const string& s2 ) { //用s2替换s中第一个出现的s1

s.replace(s.find(s1),s1.size(),s2);

return s.size();

}

int toN\_num(int a,int n1,int n2,int diff[]){//将a转化为n1进制储存在diff中

int i=n2;

while(a!=0){

diff[--i]=a%n1;//取模

a/=n1;

}

// for(int i=0;i<n2;i++)

// cout<<diff[i]<<" ";

return i;

}

运行图

