

Assignment No.:	3
Title:	To Generate Random Password
Subject:	Data Structures Laboratory
Class:	S.Y. 13 (B.Tech) C.S.E.
Roll No.:	2215055 (MITU21BT1T0010).
Assessment (Marks):	
Signature and Date of Assessment:	

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Experiment No:- 3

* Experiment Title:- Implement C++ programs for Random password generation.

* Objectives :-

① To understand the execution of nested loops

* Problem Statement:- A set S = {1, 3, a, & t, i} represent alphanumeric characters. Write a program in C++ to generate all possible passwords of length.

* Outcomes:-

→ Understanding the use of nested loops.

* Algorithm (To generate Random password)

Start

2) Take input as set of alphanumeric character.

3) Write function to generate password - Define number of for loop as per requirement.
(Nested loop) - Repeat for loop till displaying all password.

4) Display password.

5) End.

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* Conclusion
→ Thus, we generated all the possible combinations of random password.

Questions

1) Write down the syntax of Nested for loop.

→ for (outer condition)
 {

 Outer for statements;
 { for (inner condition)

 Inner for statements;
 {

 Outer for statements;
 {

```
#include <iostream>
#include<cstdlib>

using namespace std;

class password{
char seta[6]={'1','3','a','s','t','i'};
int count=0;
public: void combination();
};

void password::combination()
{
    for(int i=0;i<6;i++)
    {
        for(int j=0;j<6;j++)
        {
            for(int k=0;k<6;k++)
            {
                for(int l=0;l<6;l++)
                {
                    cout<<seta[i]<<seta[j]<<seta[k]<<seta[l];
                    cout<<"\t";
                    count++;
                }
            }
        }
    }
}

cout<<"\n TOTAL COMBINATION ARE: "<<count;
```

```
        }
    }

    int main()
    {
        password p;
        p.combination();
    }
}

1111 1113 111a 111s 111t 111i 1131 1133 113a 113s 113t 113i 11a1 11a3 11aa 11as
11at11ai 11s1 115s 115a 11ss 11st 11si 11t1 11t3 11ta 11ts 11tt 11ti 11i1 113 11ia 11is 11it
11ii 1311 1313 131a 131s 131t 131i 1331 1333 133a 133s 133t 133i 13a1 13a3 13aa 13as
13at 13ai 13s1 13s3 13sa 13ss 13st 13si 13t1 13t3 13ta 13ts 13tt 13ti 13i1 13i3 13ia 13is 13it
13ii 1a11 1a13 1a1a 1a1s 1a1t 1a1i 1a31 1a33 1a3a 1a3s 1a3t 1a3i 1aa1 1aa3 1aaa 1aas
1aat 1aai 1as1 1as3 1asa 1ass 1ast 1asi 1ati 1at1 1at3 1ata 1ats 1att 1ati 1ai1 1ai3 1aia 1ais 1ait
1aii 1s11 1s13 1s1a 1s1s 1s1t 1s1i 1s31 1s33 1s3a 1s3s 1s3t 1s3i 1s1a1 1s1a3 1s1aa 1s1as 1s1at
1sai 1ss1 1ss3 1ssa 1sss 1sst 1ss1 1st1 1st3 1sta 1sts 1stt 1sti 1si1 1s13 1sia 1sis 1s1t 1s1i 1t11
1t13 1t1a 1t1s 1t1t 1t1i 1t31 1t33 1t3a 1t3s 1t3t 1t3i 1ta1 1ta3 1taa 1tas 1tat 1tai 1ts1 1ts3
1tsa 1tss 1tst 1tsi 1tt1 1tt3 1tta 1tts 1ttt 1tti 1ti1 1ti3 1tia 1tis 1tit 1tii 1i11 1i13 1i1a 1i1s
1i1t 1i1l 1i31 1i33 1i3a 1i3s 1i3t 1i3j 1ia1 1ia3 1iaa 1ias 1iat 1i1i 1is1 1is3 1isa 1iss 1ist 1isi
1it1 1it3 1ita 1its 1itt 1iti 1ii1 1ii3
1iia 1iis 1iit 1iii 3111 3113 311a 311s 311t 311i 3131 3133 313a 313s 313t 313i 31a1 31a3
31aa 31as 31at 31ai 31s1 31s3 31sa 31ss 31st 31si 31t3 31ta 31ts 31tt 31ti 31i1 31i3
31ia 31is 31it 31ii 3311 3313 331a 331s 331t 331i 3331 3333 333a 333s 333t 333i 33a1
33a3 33aa 33as 33at 33ai 33s1 33s3 33sa 33ss 33st 33si 33t1 33t3 33ta 33ts 33tt 33ti 33i1
33i3 33ia 33is 33it 33ii 3a11 3a13 3a1a 3a1s 3a1t 3a1i 3a31 3a33 3a3a 3a3s 3a3t 3a3i 3aa1
3aa3 3aaa 3aas 3aat 3aa1 3as1 3as3 3asa 3ass 3ast 3asi 3at1 3at3 3ata 3ats 3att 3ati 3ai1
3ai3 3aia 3ais 3ait 3aii 3s11 3s13 3s1a 3s1s 3s1t 3s1i 3s31 3s33 3s3a 3s3s 3s3t 3s3i 3s1a1
3sa3 3saa 3sas 3sat 3sai 3ss1 3ss3 3ssa 3sss 3sst 3ssi 3st1 3st3 3sta 3sts 3stt 3sti 3si1 3si3
3sia 3sis 3sit 3sii 3t11 3t13 3t1a 3t1s 3t1t 3t1i 3t31 3t33 3t3a 3t3s 3t3t 3t3i 3ta1 3ta3 3taa
3tas 3tat 3tai
3ts1 3ts3 3tsa 3tss3tct 3tsi 3tt1 3tt3 3tta 3tts 3i31 3i33
3ttt 3tis 3tit 3tii 3i11 3i13 3i1a 3i1s 3i1t 3i1i 3tti 3ti1 3ti3 3tia 3i3a 3i3s 3i3t 3i3i
3ia1 3ia3 3iaa 3ia 3iat 3iai 3is1 3is3 3isa 3iss 3ist 3isi 3it1 3it3 3ita 3its 3itt 3iti 3i11 3i13 3iia
3iis 3iit 3i11 3i13 3i1a 3i1s 3i1t 3i1i 3i13 3i1a 3i1s 3i1t 3i1i 3i13 3i1a 3i1s 3i1t
a1as a1at a1ai a1s1 a1s3 a1sa a1ss a1st a1si a1t1 a1t3 a1ta a1ts a1tt a1ti a1i1 a1i3 a1i1 a1i3 a1i1 a1i3
a1it a1ii a311 a313 a31a a31s a31t a31i a331 a333 a33a a33s a33t a33i a33a1 a3a3 a3aa a3as
a3at a3ai a3s1 a3s3 a3sa a3ss a3st a3si a3t1 a3t3 a3ta a3ts a3tt a3ti a3i1 a3i3 a3ia a3is a3it
a3ii aa11 aa13 aa1a aa1s aa1t aa1i aa31 aa33 aa3a aa3s aa3t aa3i aaa1 aaa3 aaaa aaas aaat
aaai aas1 aas3 aasa aass aastaasi aat1 aat3 aata aats aatt aati aai1 aai3 aaiia aais aait aaii
as11 as13 as1a as1s as1t as1i as31 as33 as3a as3s as3t as3i as1 asa3 asaa asas asat asai
```

TOTAL COMBINATION ARE:1296

Process returned 0 (0x0) execution time : 0.226 s

Press any key to continue.

*
*

ASSIGNMENT NO- 4