

IN THE NAME OF ALLAH, THE GREATEST THE MOST MERCIFUL

## INTERNATIONAL ISLAMIC UNIVERSITY CHITTAGONG



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## Lab Assignment 1

**Matric / ID No.** : C211032

**ID No. (in words)** : C-Two-One-One- Zero-Three-Two

Name : Rashedul Arefin Ifty

Semester : 3rd

Section : 3AM

Course Code : CSE-2322

Course Title : Data Structures Lab

Course Teacher Name : Prof. Mohammed Shamsul Alam

**Email ID** : r.a.ifty2001@gmail.com

**Contact Number** : 01840003222

## Submitted To:

Prof. Mohammed Shamsul Alam

Professor

Department of Computer Science and Engineering International Islamic University Chittagong

1. # include < bits | stdc++.h> using namespace std; int main () 2. # include < bits Istación this cin>> n; 6/2 songramon priss int arrital; ton (int i=1; i <= n; i++) cim >> arr [i].do lini forc(int i = 1; i\n+1; i++) if (ann[1] (ann [i]) in Mann [1] = ann [i]; cout << "Langest Element = ! << ann[1];

return + O; ble / stide shubari # 1 ipper sounds museum l'aisis () mismo time 2. #include (bits/stdc++.h) using namespace std in chin intemain() => i (1 = i troi) notint a, b, C; T 51510 (< mi) int d = b\*b - 4 \*a \* d; int r1, r2, r; itri) not it (ann [] (0(1) 4i)  $\pi 1 = (-b + sqnt(d))/(2*a);$  $\Pi_2 = (-b - sqnt(d)) / (2*a);$ cout Kr1 (" "Kr2 Kendi; 11/1/1/ 1/2 1/2> too

else it (d == 0) : [ [ ] 11511 toni TUE - bul (2\* 9) i = i troi) not cout << r<< endi; else cout «"Not real Number."; return 0; = ( [i] sino) +; } i+t(1)>" iterablet? bases 9">>> two 3. #include < bits/stact 7.7h) using namespace std; A. Himchade Chits Ich miam thi int n; cnt=0; conserver cin>>n;

int arr [n]; Jon (int i=15/12=m5/1++) { cin Sann [i] tonlintii=1; i/=n; i+t) { it (ann[i]) = 40) rount on cnt++; cout << "Passed Student: " << cnt; neturin Oslal tid) obulonite & using mamespace std; #include (bits /stdc+t.h) using namespace std; 14/2 mio

Internal (1) its /5() air mythis { int n, possvalight more proper cinson >> posso valinas tra int ann[n]; (209, 11 trai ton(int i=@1)91(=m; i++) fon(int i=n; 15=p6s;il-3) Lang [it ] = ann [i]; ann Tpost = valil sisio ton (int i= ); i <= n+1; i++) cout Kann[i] K"";

5. #include (bits/stdett.h) using namespace std; int main () 1/1 2/9/11 william { int n, pos; il month cin >> m>> post = 1 trai) 1111 int ann [n]; for (int i=1; i <= n; i++) (E-cinis))ann [i]; tri) 1101ton (int i=Pos; i(n; i++) ann [i] = ann [i+1] ton (inti=1; i <= m-1; i++) [ cout ((ann [i] ((" return 0;

```
6. #include (bits/stdc++.h)
using namespace std;
int main ()
{ int n, temp;
 cimbonis > 1 ( = 1 trei) on .
int ann [n];
ton (int i=1; i <= n; i++)
  { cim >> ann [i];
 for (int i=1; i <= n-1; i++)
(for limit j=1) j (=m-1) j++)
        it (ann[j]) ann[j+1]
            temp=anr[j];
           ann [j]=ann[j+i];
            ann [j+7] = temp;
```

Jon (int i=1; i <= h; i++) 2 cout & ann [i] [i] 1 = 1 (1 = 1 troi) sol-7. #imclude (bits 1stac++. W) using namespace std; int main ()

```
cin>>n;
int annient 500° >> toos
ton (int i=1; i <= n) 1++)
Ecin Sann [i] > hon
          (x) bmiss
int num;
            neturo C;
cin)mum;
fon(int i=1; i/=n; i++)
(lit (ann [i] == num) H
    { index=sippromone prisos
cnt+t; () minor tri
      break',
                   in the }
             : l'all amo t'mi
```

cout < "Found at index Kindex; netun 0; (++1: 1=>1:1: tmi) not 8. #include (bits/stac++.h) using namespace Stdi int main () It the intn; cim )) n; intann [n];

```
for (int i=1) i(=m; i++)
{ cim SSann [i];
cim >> x;
int (= 1;
int n=n;
 bool found = 0 >> too
while (L <= r)
 { nint m = (L+n)/2 32/3
   if (ann[m] = = 20)
    { found = 1; 0 mouston
      break;
```

elseit (x/ann[m]) (TIDRAMETI) else (found) ( = 1 training) { cout << "Foundationed while (lett) still else cout << "Not found", neturn 0; T = browot. idamid

```
9. #include (bits/stdc++.b)
using namespace std;
# define N 32768 112 15
longlong prime [N];
bool soi siver sievel)
{ prime[N]={}; prime[0]=];
  prime [1] = 1;
  ton(inti=2; i <= sqrt(N); i++)
   { if (prime[i] == 0)
      fonlint j=i*i,j(=N;j+=i)
prime[j]=1;
```

intimain () id shallowit Sieve () if se 71 smil ob H long long ni cim >> ni, Brol Emol it (prime [m]) is lood cout & "Not Paime"; else : [I] oming (++1) (M) + cout ( "Prime") not netunno; Maje jatistiche

```
10. #include (bits/stdc++.h)
using namespace std;
int main()
 int n;
  FILE*+p;
  tp=topen ("RAND. DAT", "w");
  for (int i=1; i <= 100; i++)
  } fprintt (fp, "Tod", rand ());
  fclose (fp);
  tp=fopen("RAND. DAT", "r");
  ton (int i=1; i<=100; i++)
  { + scant (tp, "Tod", &n);
    cout << m << endlj
   fclose (fp);
```