```
• kriish@kriish-Aspire-A315-23:~/Downloads/DSALAB-master/PA2$ make submit2 gcc -g -Werror -shared -03 -fPIC -o libpa2.so pa2.c
          echo "Compiling test-case 2"
          Compiling test-case 2
          gcc -g -Werror -03 -L. -Wl,-rpath=. -o test2 test2.c -ldsa -lpa2 -lm
./test2 100000
         Creating 100000 uids took 263 ms. adding 100000 records took 176 ms.
          making 599982 friends took 1274 ms.
          deleting 50000 records took 2639 ms.
          Test-case-2 passed ./test2 1000000
         Creating 1000000 uids took 4771 ms. adding 1000000 records took 3663 ms.
          making 5999982 friends took 20912 ms.
          deleting 500000 records took 47778 ms.
        Test-case-2 passed

kriish@kriish-Aspire-A315-23:~/Downloads/DSALAB-master/PA2$ make submit4
          echo "Compiling test-case 4"
          Compiling test-case 4
         gcc -g -Werror -03 -L. -Wl,-rpath=. -o test4 test4.c -ldsa -lpa2 -lm ./test4 100000
          Creating 100000 uids took 233 ms.
          adding 100000 records took 179 ms.
          making 599982 friends took 867 ms.
          left:0 right:2
          ERROR: tree is not balanced
          test4: lib.c:610: check_avl_property: Assertion `0' failed.
          make: *** [Makefile:67: submit4] Aborted (core dumped)
gcc -g -Werror -shared -03 -fPIC -o libpa2.so pa2.c
echo "Compiling test-case 1"
```

```
Compiling test-case 1
 gcc -g -Werror -03 -L. -Wl,-rpath=. -o test1 test1.c -ldsa -lpa2 -lm
  ./test1 100000
  Creating 100000 uids took 155 ms.
 adding 100000 records took 95 ms.
 making 599982 friends took 511 ms. search 100000 records took 80 ms.
 Test-case-1 passed
  ./test1 1000000
 Creating 1000000 uids took 2829 ms. adding 1000000 records took 2125 ms.
 making 5999982 friends took 12672 ms.
 search 1000000 records took 2098 ms.
  Test-case-1 passed
• kriish@kriish-Aspire-A315-23:~/Downloads/DSALAB-master/PA2$ make submit3
 echo "Compiling test-case 3"
 Compiling test-case 3
 gcc -g -Werror -03 -L. -Wl,-rpath=. -o test3 test3.c -ldsa -lpa2 -lm ./test3 100000
  Creating 100000 uids took 145 ms.
 adding 1000000 records took 94 ms.
making 599982 friends took 439 ms.
search 100000 records took 71 ms.
 Test-case-3 passed
  ./test3 1000000
  Creating 1000000 uids took 2542 ms.
 adding 1000000 records took 1389 ms.
 making 5999982 friends took 6848 ms.
  search 1000000 records took 881 ms.
 Test-case-3 passed
```

Compiling test-case 1

gcc -g -Werror -O3 -L. -WI,-rpath=. -o test1 test1.c -ldsa -lpa2 -lm

./test1 100000

Creating 100000 uids took 155 ms.

adding 100000 records took 95 ms.

making 599982 friends took 511 ms.

search 100000 records took 80 ms.

Test-case-1 passed

./test1 1000000

Creating 1000000 uids took 2829 ms.

adding 1000000 records took 2125 ms.

making 5999982 friends took 12672 ms.

search 1000000 records took 2098 ms.

Test-case-1 passed

kriish@kriish-Aspire-A315-23:~/Downloads/DSALAB-master/PA2\$ make submit3 echo "Compiling test-case 3"

Compiling test-case 3

gcc -g -Werror -O3 -L. -WI,-rpath=. -o test3 test3.c -ldsa -lpa2 -lm

./test3 100000

Creating 100000 uids took 145 ms.

adding 100000 records took 94 ms.

making 599982 friends took 439 ms.

search 100000 records took 71 ms.

Test-case-3 passed

./test3 1000000

Creating 1000000 uids took 2542 ms.

adding 1000000 records took 1389 ms.

making 5999982 friends took 6848 ms.

search 1000000 records took 881 ms.

Test-case-3 passed

./test2 100000

Creating 100000 uids took 263 ms.

adding 100000 records took 176 ms.

making 599982 friends took 1274 ms.

deleting 50000 records took 2639 ms.

Test-case-2 passed

./test2 1000000

Creating 1000000 uids took 4771 ms.

adding 1000000 records took 3663 ms.

making 5999982 friends took 20912 ms.

deleting 500000 records took 47778 ms.

Test-case-2 passed

kriish@kriish-Aspire-A315-23:~/Downloads/DSALAB-master/PA2\$ make submit4 echo "Compiling test-case 4"

Compiling test-case 4

gcc -g -Werror -O3 -L. -WI,-rpath=. -o test4 test4.c -ldsa -lpa2 -lm

./test4 100000

Creating 100000 uids took 233 ms.

adding 100000 records took 179 ms.

making 599982 friends took 867 ms.

left:0 right:2

ERROR: tree is not balanced

test4: lib.c:610: check_avl_property: Assertion `0' failed. make: *** [Makefile:67: submit4] Aborted (core dumped)