

```
1: // $Id: linknode.cpp,v 1.1 2016-06-28 14:46:57-07 - - $
2:
3: #include <iostream>
4: using namespace std;
5:
6: struct node;
7: struct link {
8:     node* next {};
9:     node* prev {};
10: };
11: struct node: link {
12:     int value {};
13: };
14:
15: int main() {
16:     node* nn = new node();
17:     link* ll = nn;
18:     nn = static_cast<node*> (ll);
19:     cout << "nn = " << nn << ", sizeof = " << sizeof (node) << endl;
20:     cout << "ll = " << ll << ", sizeof = " << sizeof (link) << endl;
21:     char* p = new char;
22:     for (int i = 0; i < 8; ++i) {
23:         char* q = new char;
24:         cout << static_cast<void*> (q) << " " << q - p << endl;
25:         p = q;
26:     }
27: }
28:
29: //TEST// linknode >linknode.out 2>&1
30: //TEST// mkpspdf linknode.ps linknode.cpp* linknode.out
31:
```

```
1: @@@@ mkc: starting linknode.cpp
2: checksource linknode.cpp
3: ident linknode.cpp
4: linknode.cpp:
5:      $Id: linknode.cpp,v 1.1 2016-06-28 14:46:57-07 - - $
6: cpplint.py.perl linknode.cpp
7: Done processing linknode.cpp
8: g++ -g -O0 -Wall -Wextra -Wpedantic -Wshadow -fdiagnostics-color=never -
std=gnu++17 -Wold-style-cast linknode.cpp -o linknode -lm
9: rm -f linknode.o
10: @@@@ mkc: finished linknode.cpp
```

```
1: nn = 0xc25010, sizeof = 24
2: ll = 0xc25010, sizeof = 16
3: 0xc25050 32
4: 0xc25070 32
5: 0xc25090 32
6: 0xc250b0 32
7: 0xc250d0 32
8: 0xc250f0 32
9: 0xc25110 32
10: 0xc25130 32
```