```
1: // $Id: hashdispatch.cpp, v 1.8 2018-11-07 11:46:10-08 - - $
 3: #include <iostream>
 4: #include <unordered_map>
 5: using namespace std;
 6 :
7: string add() { return __PRETTY_FUNCTION__; }
 8: string sub() { return __PRETTY_FUNCTION__; }
9: string mul() { return __PRETTY_FUNCTION__; }
10: string div() { return __PRETTY_FUNCTION__; }
11:
12: using function = string(*)();
13: unordered_map<char, function> dispatch {
       {'+', add},
       {'-', sub},
15:
       {'*', mul},
16:
17:
       {'/', div},
18: };
19:
20: int main() {
21:
       const char ops[] = "+-*/%";
       for (int i = 0; ops[i]; ++i) {
22:
23:
          auto itor = dispatch.find (ops[i]);
24:
          if (itor == dispatch.end()) {
             cout << ops[i] << ": not found" << endl;</pre>
25:
26:
          }else {
27:
             auto f = itor->second;
28:
             cout << reinterpret_cast<void*> (f) << " " << f() << endl;</pre>
29:
          }
30:
       }
31: }
32:
33: //TEST// ./hashdispatch >hashdispatch.lis 2>&1
34: //TEST// mkpspdf hashdispatch.ps hashdispatch.cpp* hashdispatch.lis
35:
```

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\$cmps104a-wm/Assignments/code/symtable/ 1/1 11:46:22 hashdispatch.cpp.log 1: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: starting hashdispatch.cpp 2: hashdispatch.cpp: \$Id: hashdispatch.cpp, v 1.8 2018-11-07 11:46:10-08 - - \$ 4: cpplint.py.perl hashdispatch.cpp 5: Done processing hashdispatch.cpp 6: g++ -g -00 -Wall -Wextra -fdiagnostics-color=never -std=gnu++17 -Wold-st yle-cast hashdispatch.cpp -o hashdispatch -lm 7: rm -f hashdispatch.o 8: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: finished hashdispatch.cpp

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\$cmps104a-wm/Assignments/code/symtable/hashdispatch.lis

1/1

1: 0x4015cb std::string add()
2: 0x40162c std::string sub()
3: 0x40168d std::string mul()
4: 0x4016ee std::string div()

5: %: not found