

```

1  from program2_1 import Dvector
2  from program2_2 import Dmatrix
3
4  N = 4
5
6  def main():
7      global N
8      a = Dmatrix(1, N, 1, N) # 行列 a[1...N][1...N]
9      b = Dvector(1, N) # b[1...N]
10     with open("input.dat", "r") as fin:
11         with open("output.dat", "w") as fout:
12             input_matrix( a, 'A', fin, fout )
13             input_vector( b, 'b', fin, fout )
14
15     # a[1...N][1...N] の入力
16     def input_matrix(a: Dmatrix, c: str, fin, fout):
17         rhi, rli = a.row_head_idx, a.row_last_idx
18         chi, cli = a.col_head_idx, a.col_last_idx
19         N = rli - rhi + 1
20         fout.write(f"行列{c}は次の通りです\n")
21         for i in range(rhi, rli+1):
22             line = fin.readline().split()
23             for j in range(chi, cli+1):
24                 a[i][j] = float(line[j-1])
25                 fout.write("{:5.2f}\t".format(a[i][j]))
26             fout.write("\n")
27         fin.readline()
28
29     # b[1...N] の入力
30     def input_vector(b: Dvector, c: str, fin, fout):
31         hi, li = b.head_idx, b.last_idx
32         N = li - hi + 1
33         fout.write(f"ベクトル{c}は次の通りです\n")
34         line = fin.readline().split()
35         for i in range(hi, li+1):
36             b[i] = float(line[i-1])
37             fout.write("{:5.2f}\t\n".format(b[i]))
38         fin.readline()
39
40
41     if __name__ == "__main__":
42         main()

```