

```

1: BOARD_SIZE = 8
2: class BailOut(Exception):
3:     pass
4: def validate(queens):
5:     left = right = col = queens[-1]
6:     for r in reversed(queens[:-1]):
7:         left, right = left-1, right+1
8:         if r in (left, col, right):
9:             raise BailOut
10: def add_queen(queens):
11:     for i in range(BOARD_SIZE):
12:         test_queens = queens + [i]
13:         try:
14:             validate(test_queens)
15:             if len(test_queens) == BOARD_SIZE:
16:                 return test_queens
17:             else:
18:                 return add_queen(test_queens)
19:         except BailOut:
20:             pass
21:     raise BailOut
22: queens = add_queen([])
23: print queens
24: print "\n".join(". "*q + "Q " + ". "*(BOARD_SIZE-q-1) for q in queens)

```

1	0	LOAD_CONST	0 (8)
	3	STORE_NAME	0 (BOARD_SIZE)
3	6	LOAD_CONST	1 ('BailOut')
	9	LOAD_NAME	1 (Exception)
	12	BUILD_TUPLE	1
	15	LOAD_CONST	2 ()
	18	MAKE_FUNCTION	0
	21	CALL_FUNCTION	0
	24	BUILD_CLASS	
	25	STORE_NAME	2 (BailOut)
6	28	LOAD_CONST	3 ()
	31	MAKE_FUNCTION	0
	34	STORE_NAME	3 (validate)
13	37	LOAD_CONST	4 ()
	40	MAKE_FUNCTION	0
	43	STORE_NAME	4 (add_queen)
26	46	LOAD_NAME	4 (add_queen)
	49	BUILD_LIST	0
	52	CALL_FUNCTION	1
	55	STORE_NAME	5 (queens)
27	58	LOAD_NAME	5 (queens)
	61	PRINT_ITEM	
	62	PRINT_NEWLINE	
28	63	LOAD_CONST	5 ('\n')
	66	LOAD_ATTR	6 (join)
	69	LOAD_CONST	6 (at 0x1052de830, file "20.py", line 28>)
	72	MAKE_FUNCTION	0
	75	LOAD_NAME	5 (queens)
	78	GET_ITER	
	79	CALL_FUNCTION	1
	82	CALL_FUNCTION	1
	85	PRINT_ITEM	
	86	PRINT_NEWLINE	
	87	LOAD_CONST	7 (None)

