In this assignment, you will implement an Elevator. The elevator can travel to floors 1, 2, or 3. Inside the elevator, there are 3 buttons: 1, 2, and 3.

- Pressing 1 when on floor 1 outputs “Nothing happens”. Pressing 2 or 3 when on floor 1 moves the elevator to that floor.

- Pressing 2 when on floor 2 outputs “Nothing happens”. Pressing 1 or 3 when on floor 2 moves the elevator to that floor.

- Pressing 3 when on floor 3 outputs “Nothing happens”. Pressing 1 or 2 when on floor 3 moves the elevator to that floor.

- When an elevator arrives at its destination floor, the doors open. Pressing buttons 1, 2, or 3 close the doors.

- The elevator will start on floor 1 with the doors open when your program launches. Have your program output messages whenever a button is pushed, the elevator starts to move up or down, the doors open or close, and the elevator arrives at a new floor. Also output a “Nothing happens” message when pressing a button does not move the elevator.

Use clean-coding standards. Keep your class sizes ≤ 200 LOC and functions ≤ 20 LOC.

Input

Your program will read input from a file whose name is passed to it at the command line. The file will contain a series of integers each between 1 and 3 indicating the button that is pressed inside the elevator.

Example

If the input file has the following content:

```
2 1 3 3 1
```

Then your program should produce console output similar to this:

```
2 pressed
Doors are closed
Going up...
*ding* The elevator arrives at Floor 2
Doors are open
1 pressed
Doors are closed
Going down...
*ding* The elevator arrives at Floor 1
Doors are open
3 pressed
Doors are closed
Going up...
*ding* The elevator arrives at Floor 3
Doors are open
3 pressed
Doors are closed
Nothing happens
1 pressed
Going down...
*ding* The elevator arrives at Floor 1
Doors are open-
```