What could be improved.

The simulation code could be cleaner. Hard to read.

The sorting algorithm could be faster but not necessary.

Maybe having an enum for all buttons including floor so that you can select all buttons and include the misc buttons.

It might be better to have the set Error messages be a method in the ElevatorError class.

I think that the try catches should all be in the classes or all should be in the simulation class just for consistency.

I think more tests on the sorting algorithm would be good as well.

I handle the number 0 but it may be better to have 0 be the ground floor.

Maybe it is worth it to have a building object that goes into the elevator.

System.out.prints should be logs in elevator Service.

Returning Strings may not be the best, maybe an object floor maybe just a number. When it comes to some of the methods in Service.

What was not implemented that I thought of.

Elevator does not have a stop button.

Elevator does not take in more buttons once it's stopped.

What happens when there is more than one elevator?

There should be a currently in use flag but we could just make the OutsideButtons be the flag.

No security measures on the maintenance buttons may have a key you need to press to change the maintenance mode. Maybe set privileges on the Maintenance button.

A cool UI that allows you to actually press the buttons in a GUI.

Maybe adding a scale that checks the weight of the people in the elevator.

Maybe adding a monthly Maintenance check up on the elevator.