Elevator System

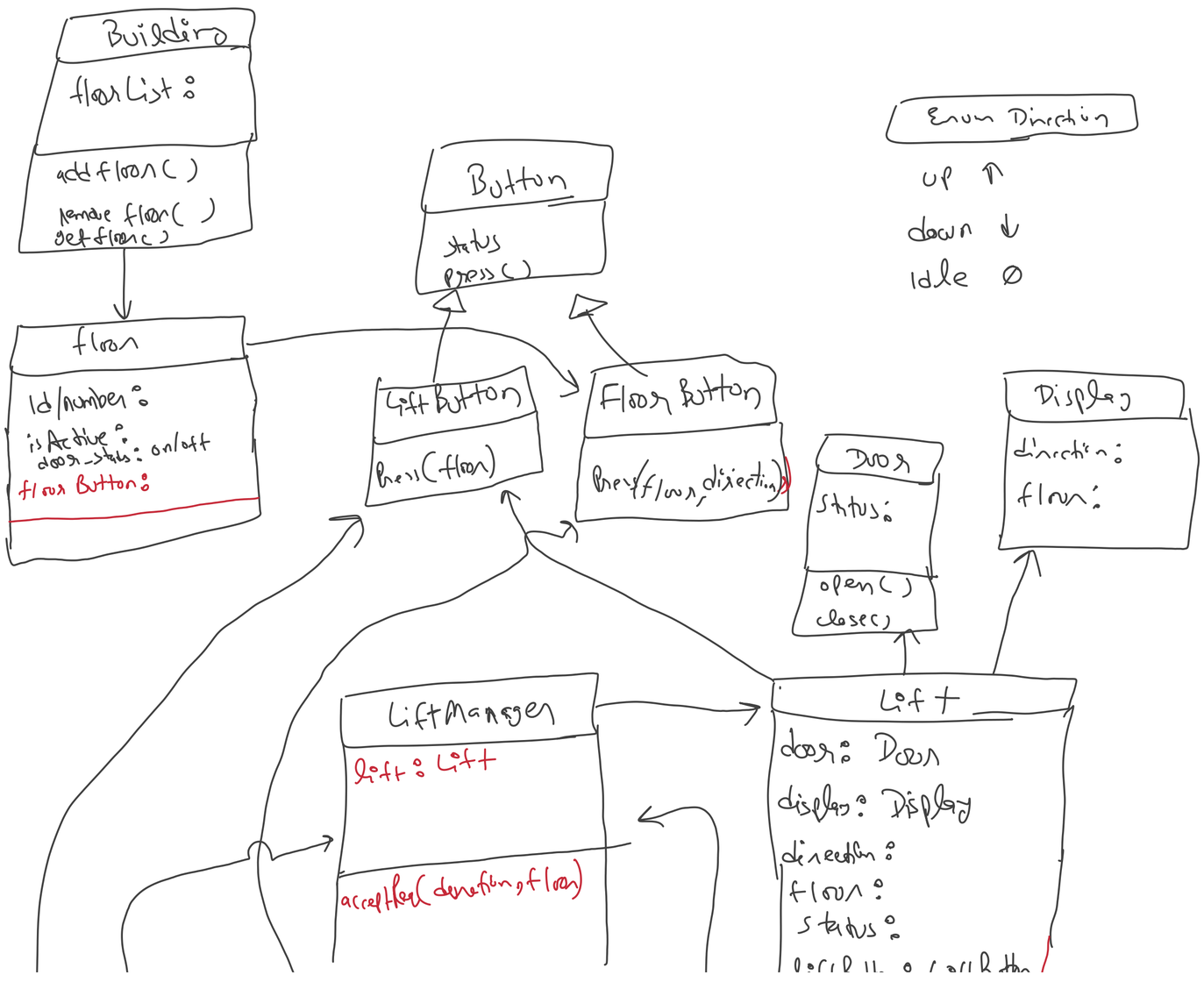
Thursday, October 17, 2024 5:57 PM

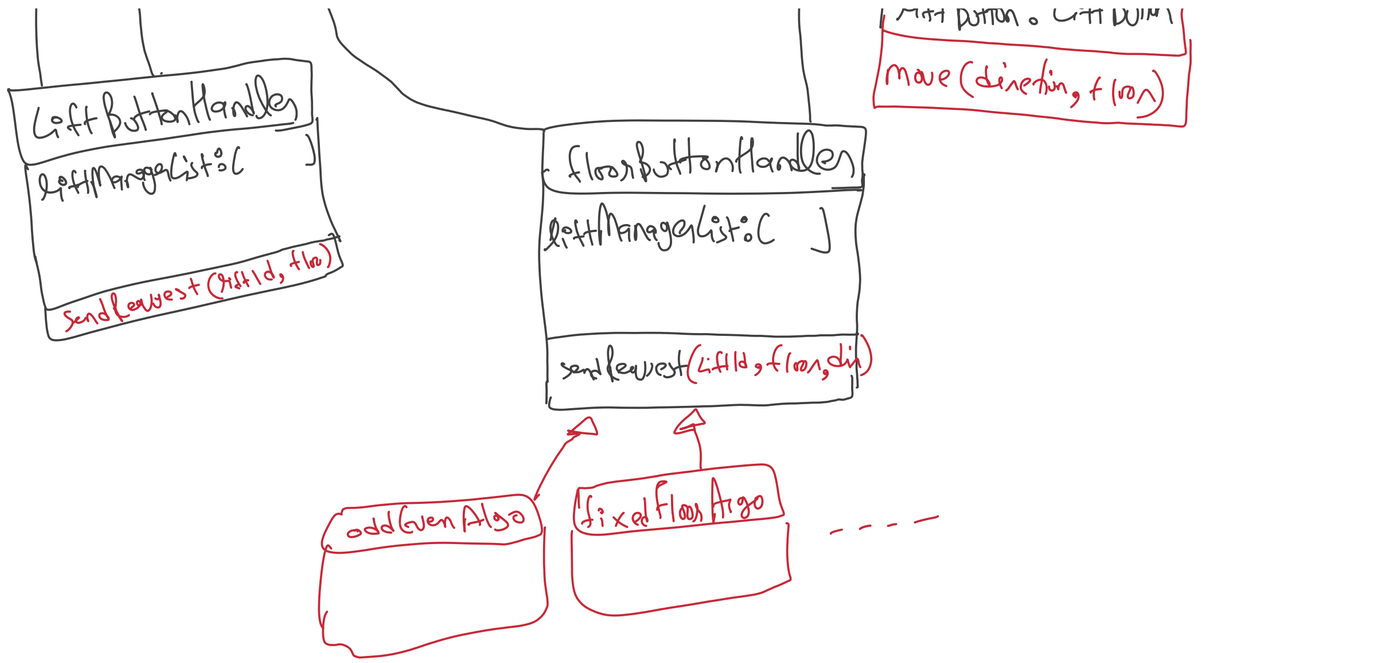
③ floorButton ↔ [0, 1, ↓]

④ Lift
⑤ Lift Button
⑥ Display
⑦ Doors

→ Display (displaying current floor & direction/motion)
Lift Button (also indicating Active button, Lift need to stop at)
Doors
Current floor
Direction

Class Diagram





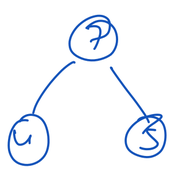
Algorithms

① Even-odd : Lift's stop will depend upon predefined even-odd logic

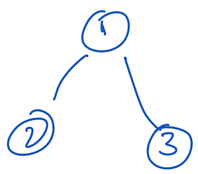
Lift-2,4,6 ⟶ even floors
Lift-1,3,5 ⟶ odd floors
(either way/predefined)

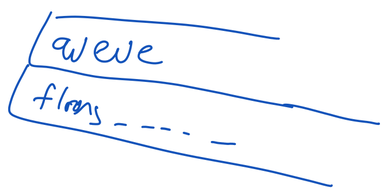
② fixedFloorsAlgo

max-Heap



min-heap





⇒ Lift Going up, it will finish (asc order) 1, 2, 3 ⟶ so a min-heap will be assigned in order to process floors

⇒ Lift Going down, it will finish (desc order) 7, 5, 4 so a max-heap will be used to process the floors.