**Elevator Simulation**

This project simulates an elevator system in a building, written in TypeScript.

**Overview**

The project consists of the following main components:

* **Elevator**: Represents an elevator with movement functionality.
* **Floor**: Represents a floor in the building with a button and timer functionality.
* **Building**: Represents a building with floors and elevators.
* **ElevatorController**: Controls the elevators within the building.

**Components**

**Elevator**

* **Properties**:
  + elevatorNumber: The number of the elevator.
  + elevatorElement: The HTML image element representing the elevator.
  + ringBell: The HTML audio element for the bell sound.
  + currentFloor: The current floor the elevator is on.
  + destination: The destination floor the elevator is moving to.
  + timer: The timer for elevator operations.
* **Methods**:
  + moveElevatorToFloor(targetFloor: number, freeFloor: (floorNumber: number) => void): Moves the elevator to a target floor.
  + playBell(): Plays the bell sound.
  + stopBell(): Stops the bell sound.

**Floor**

* **Properties**:
  + isButtonPressed: Indicates whether the button on this floor is pressed.
  + floorNumber: The number of the floor.
  + floorElement: The HTML div element representing the floor.
  + buttonElement: The HTML button element for this floor.
  + lineElement: The HTML div element representing the line indicating the floor.
  + timerElement: The HTML div element representing the timer display.
* **Methods**:
  + startTimer(duration: number): Starts a timer for the floor.

**ElevatorController**

* **Methods**:
  + selectElevator(floorNumber: number, currentTime: number, elevators: Elevator[]): Elevator: Selects an elevator to respond to a floor call.
  + dispatchElevator(floorNumber: number, elevators: Elevator[], floors: Floor[], releaseFloor: (floorNumber: number) => void): void: Dispatches an elevator to a floor call.
  + getRemainingTime(timer: number, currentTime: number): number:Calculates the remaining time until an event.

**Building**

* **Properties**:
  + floors: An array of floor objects in the building.
  + elevators: An array of elevator objects in the building.
  + buildingElement: The HTML div element representing the building.
  + floorsElement: The HTML div element containing floor elements.
  + elevatorShaft: The HTML div element representing the elevator shaft.
* **Methods**:
  + releaseFloor(floorNumber: number): Releases a floor by resetting its button status.
  + dispatchElevator(floorNumber: number): Dispatches an elevator to a floor call.

**BuildingFactory**

* **Methods**:
  + getBuilding(buildingName: string): Retrieves a building instance by name.

**Settings**

* Contains configurations for different buildings.