Airplane exercise

3: Altitude animation

The airplane should have both:

- an **altitude** (its present vertical position), and
- a **target altitude** (the altitude it is moving toward: its goal or target)
- a **max speed** (max altitude change per second)

Change the old action methods **increaseAltitude** and **decreaseAltitude** to become:

- **increaseTargetAltitude(…)**
  - Increase the **target altitude** by the predefined amount
  - Do not set/change the **altitude**
- **decreaseTargetAltitude(…)**
  - Decrease the **target altitude** by the predefined amount
  - Do not set/change the **altitude**

Create a private **animateAltitude()** method

- This method should be executed by the separate airplane animation thread
- Repeat the following process endlessly:
  - Sleep the thread for a fraction of a second
    - Example: **Thread.sleep(250);** Sleeps thread for 250ms (1/4 second)
  - Calculate the new altitude, based on:
    - Present altitude
    - Direction of movement
    - Max speed
  - Set the airplane's altitude according to the calculated new altitude
- Be sure to not overshoot the target altitude or to oscillate around it
- The airplane should stop at exactly the target when the altitude reaches that point