

AirplaneWindow

1. Create another set of 2 JLabel components (just like the **altitudeTitle** and **altitudeLabel** labels) for the airplane's *Target altitude*.
2. Create a JPanel container for these 2 JLabels. Give it a vertical box layout manager.
3. Add the 2 JLabels to the JPanel.
4. Add the JPanel to the **stateAltitude** JPanel container.
5. *Confirm that your code works: You should see the new components in the user interface.*

Airplane

6. Create a **double targetAltitude** field (default 0) ("target" means "goal" or "destination").
7. Create a **boolean altitudeChanging** field (default false).
8. Create a **setTargetAltitude(double targetAltitude)** method.
9. Create a **changeAltitude()** method.
10. Find every place where you call **setAltitude(...)** (should be 3 locations).
Replace each of these with a call to **setTargetAltitude(...)**.
11. Define the **setTargetAltitude(...)** method.
 - a. First you should save the desired target altitude (parameter) in the corresponding field.
 - b. Then you should check that the actual altitude is different than the target.
 - c. You should also check that the altitude is not presently changing.
 - d. If both of these conditions are true, then:
 - i. You should create a new thread object, passing a Runnable that calls **changeAltitude()**. You can use an anonymous inner class, a lambda expression, or a method reference to do this.
 - ii. You should start the thread.
12. Define the **changeAltitude()** method. (This is where you define what task the thread performs.)
While the actual altitude is different than the target altitude, change the actual altitude (using **setAltitude(...)**) so that it moves toward the target. Then you should sleep the thread for a short period of time before repeating.