

Airplane exercise

2: Landing and repairing

- Unique id for each airplane object
- Create constructor, initialize fields
- Landing functionality
 - In order to land the plane successfully, the plane must be in Landing mode
 - If the plane is in Landing mode, then decreasing the altitude will land the plane
 - If the plane is not in Landing mode, then decreasing the altitude will explode the plane
 - Therefore, you need to add:
 - A new possible state (Landing mode)
 - A new possible action (Enter landing mode)
 - Draw a State/Action diagram to design your model's logic before starting to code
 - Be sure to follow the same pattern as before for your action methods:
 - If the action is valid
 - Apply the action by updating the airplane's state
 - Display a message describing the action / state-change
 - Else if the action is invalid
 - Display a user-friendly error message to the user
 - Return a Boolean error code indicating whether the action was valid/successful
- Repair functionality
 - Up until now, if the plane is exploded, no actions are valid
 - Now let's add a new action: Repair
 - This action should be possible if and only if the airplane is exploded
 - Repairing the plane should return it to its default initial state (engine off, on the ground)