**Airport Challenge**

As an air traffic controller

So I can get passengers to a destination

I want to instruct the airport to land a plane

As the system designer

So that the software can be used for many different airports

I would like a default airport capacity that can be overridden as appropriate

As an air traffic controller

To ensure safety

I want to prevent landing when the airport is full

As an air traffic controller

So I can get passengers on the way to their destination

I want to instruct the airport to let a plane take off and confirm that it is no longer in the airport

As an air traffic controller

To avoid confusion

I want to prevent asking the airport to let planes take-off which are not at the airport, or land a plane that's already landed

* Air traffic controller, system designer,

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Object | Properties | Messages | Context | Output |
| System designer | Capacity | changeCapacity() |  | Number |
| Airport traffic controller | Airport | Land() | Not full | Array |
|  |  |  | Full | String ‘Airport is full’ |
|  |  |  | Landed | String ‘plane has landed already’ |
|  | Capacity |  |  | Number |
|  | weather |  | Stormy | String ‘weather is stormy, can’t take off’ |
|  | Airport(string) |  |  | Array |
|  |  |  | Not in that airport | String ‘Can’t take off, not in this airport’ |
|  |  |  | Already taken off | String ‘Plane has already taken off’ |
| Weather |  | Conditions() | Okay | String |
|  |  |  | Stormy | String |
| Airplane | Status | TakenOff() | Taken off | String |
|  |  | Landed() | Landed | String |