Airport challenge prep

Motive - Software to control the flow of planes at the airport

- Planes can land provided the weather is sunny

- When weather is stormy no planes can land or take off

Part 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Objects** | **Properties** | **Message** | **Context** | **Output** |
| Airport | planes @Array | landPlane(plane) | Land plane at airport | @Array[@plane] |
|  | plane @boolean | doesPlaneExist(plane) | Check if plane already exist on the airport to prevent landing | @String print message |
|  | capacity @ Int | getAirportCapacity() | Airport capacity | @int |
|  | isAirportFull @ Boolean | isAirportFull() | Check if airport is full | @String either can land or cannot land based on airport capacity |
|  | takeOff @String | takeOff(plane) | Instruct take off and check plane no longer at airport | @String print instruction  @ int 1 to take off and send confirmation, 0 to not takeOff |
|  |  | doesPlaneExist(plane) | Check if plane is at the airport (it’s for planes that are not at the airport to prevent takeOff) | @String print instruction |
|  |  |  |  |  |
| Plane | planeID | Constructor(planeID) | Add Plane to the Airport if airport is not full | @int |
|  | hasPlaneTakenOff @ Boolean | hasPlaneTakenOff(planeID) | check plane no longer at airport | @boolean |
|  |  |  |  |  |

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

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* Yes, each airport needs to be able to set its own capacity Rather than having a default