**System Name   
Actor-Based Design**

* **Team**
* Ryan Vasquez
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* **Actors**

Specify the design of your actors using as many copies of the following table as necessary.

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| --- | --- | --- | --- |
| **Name:** DocumentCheck | | | |
| **State information (What does the actor know?):**   * queue to place passengers into * … | | | |
| **Responsibilities (What does the actor do?):**   * randomly add/turn away passengers when sent one * add passengers to queue | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Resulting action or effect** |
| Passenger | Main program | Passenger information | Passenger gets added to respective queue for its line |
| -- | -- | -- | -- |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Passenger | Queue | Passenger information for that queue | Once the DocumentCheck determined the passengers documents are randomly approved, sends passenger onto queue |
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| **Name:** PassengerQueue | | | |
| **State information (What does it know?):**   * Line Id * References to bodyChecker and baggageChecker for that specific line | | | |
| **Responsibilities (What does it do?):**   * Recieve passenger from DocumentCheck, and create Passenger and Baggage to send to each body and baggage checker. * Prints out add/remove of passenger from queue | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| Passenger | DocumentCheck | Passenger name&info | Store passenger ID in queue (message queue) for next available spot. |
| -- | -- | -- | -- |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Passenger | BagScan | Passenger ID for baggage | Send baggage so it can be checked |
| Passenger | BodyScan | Passenger ID for person | Send person to bodyscan so it can be checked |

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| **Name:** BagScan | | | |
| **State information (What does it know?):**   * Line id * Reference to security for the line | | | |
| **Responsibilities (What does it do?):**   * Randomly fails a bag check * Passes baggage on to security * Prints bag state, and message reception/sending | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| Baggage | Queue | Passenger number bag belongs to. | Provides reference to baggage |
| -- | -- | -- | -- |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Baggage | Security | Passenger/Baggage Id | Tell security the bag is valid/invalid |
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| **Name:** PassScan | | | |
| **State information (What does it know?):**   * Actor that represents security * Line Id | | | |
| **Responsibilities (What does it do?):**   * Determine if a passenger sent to it will pass or fail security * tell security the passenger status. | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| Passenger | Queue | Passenger Information | Used as reference to new passenger passed on. |
| -- | -- | -- | -- |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Passenger | Security | Passenger/Baggage Id | Tell security whether passenger is valid/invalid |
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| --- | --- | --- | --- |
| **Name:** Security | | | |
| **State information (What does it know?):**   * All passengers for this line * All baggage for this line * Jail reference | | | |
| **Responsibilities (What does it do?):**   * Contains logic to send passenger to jail if either passenger or passenger's bag is invalid * Prints messages recieved and sent, and who is being sent to jail * Send passengers to jail or let them on their flight. | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| Passenger | PassScan | Passenger and status of the scan | Determines of passenger goes to jail or goes on to next round of testing |
| Baggage | BagScan | Bag and status of the scan | Determines of passenger goes to jail or not |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
| Passenger | Jail | Send passenger number and info | Send passenger to jail, so jail can keep track of it |
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| --- | --- | --- | --- |
| **Name:** Jail | | | |
| **State information (What does it know?):**   * Array of passengers currently in jail * Number of security stations currently active | | | |
| **Responsibilities (What does it do?):**   * Contain passengers that have gone to jail over the day * Log at the end of the day all the passengers that are going to be moving to the jail. | | | |
| **Messages Received** | | | |
| **Message class** | **Sender** | **Contents** | **Impact or effect** |
| Passenger | Security (multiple) | Passenger ID | Give jail info and passenger that is being sent to jail for failing security checks |
| Shutdown | Main.java | Shutdown message | Tells jail its the end of the day, forcing the jail to print out its report of passengers going to jail permanently. |
| **Messages Sent** | | | |
| **Message class** | **Recipient** | **Contents** | **Purpose and trigger** |
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* **Actor Collaboration Diagram**

