**Seating Tool Project  
Technical Documentation 1.0**

**User Interface**

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| Graphical user interface, application  Description automatically generated |

1. User requests a train departure date to the ROS API which needs to be seated or unseated and wait until it gets back the response.
2. “Trains” field will be populated with all trains from that departure date and the user selects one.   
   This step is enough to click the “Seat passengers” or “Unseat passengers” button.
3. “Train legs” field will be populated with all train legs and the user will be able to see each railcar and   
   respective seats from the selected train leg (following the legend at the right of the component).
4. a) “Seat passengers” button:

Starts to execute an asynchronous process in order to seat all bookings from the selected train

It’s necessary to have unseated previously.

b) “Unseat passengers” button:

Starts to execute an asynchronous process in order to unseat all sat passengers from the selected train.

**Unseat Passengers**

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**Batch classes:**

1. RM\_SeatingToolUnseatPIUABatch:   
   Gets all sat Passenger Itinerary Unit Assignment (PIUA) records from the selected train and updates the:   
   Rail Car Number, Rail Car Ordinal Number and Rail Seat Number fields to a blank value.   
     
   This process will split each batch by 100 records and run sequentially   
   For example,   
   if there are 450 PIUA records to be unseated,   
   the process will split in 5 batches, being 4 of 100 and the last one of 50 records.

**Seat Passengers**

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1. **Batches** that will be executed depend on:
   1. The train (Eastbound, Westbound, RTR…),
   2. Whether there are bookings and available railcars to be sat by having:   
      LAK, Circle Journey, SilverLeaf, GoldLeaf or SilverLeaf Plus guests and railcars.

A picture containing text, diagram, screenshot, design

Description automatically generated

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| **Processes** | **In order below**   1. **Lake Louise**: this process runs only if the train is Westbound/Eastbound and there are respective bookings and 10 first contiguous CB railcars 2. **Circle Journey**: this process runs only if the train has Circle Journey bookings and GoldLeaf railcars (3.0 and 2.0 only). 3. **SilverLeaf**: this process runs only if there are remaining SilverLeaf bookings as well as available SilverLeaf railcars. 4. **GoldLeaf**: this process runs only if there are remaining GoldLeaf bookings as well as available GoldLeaf railcars. 5. **SilverLeaf Plus**: this process runs only if there are SilverLeaf Plus bookings as well as available SilverLeaf Plus railcars. |

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| **Batch Classes** | **In order below:** Each batch class below will be executed in each process above, so most of them can be executed more than once for each process.   1. **RM\_SeatingTool\_DataSorting\_Batch**:  This first batch will sort all train bookings and direct to which process will be executed first (LAK process batch classes, Circle Journey and so on). 2. **RM\_SeatingTool\_LakeLouise\_Batch**:  This batch runs only if there are LAK bookings (SilverLeaf or GoldLeaf) from the train and only calls the next Batch. 3. **RM\_SeatingTool\_CircleJourney\_Batch**:  this batch runs only if there are Circle Journey bookings (GoldLeaf) from the train and only calls the next Batch.   **IMPORTANT:** RM\_SeatingTool\_DataSorting\_Batch will call RM\_SeatingTool\_LakeLouise\_Batch or RM\_SeatingTool\_CircleJourney\_Batch or the Batch below.   1. **RM\_SeatingTool\_EmailNotification\_Batch:**  this batch will get all bookings and linked bookings with passengers with Service Dog and/or as Fully Bound Wheelchair and send an email notification to Product Ops Team for each passenger in this condition, preventing from seating all PIUA records from these bookings in all following processes and batches. 2. **RM\_SeatingTool\_MobilityGroup\_Batch:**  this batch will get all non-linked bookings with more than one mobility passenger and seat their PIUA records together to available railcars. 3. **RM\_SeatingTool\_LinkedMobilityGroup\_Batch:**  this batch will get all linked bookings with more than one mobility passenger and seat their PIUA records together to available railcars. 4. **RM\_SeatingTool\_MobilityIndividual\_Batch:**  this batch will get all non-linked bookings with only one mobility passenger and seat their PIUA records together to available railcars. 5. **RM\_SeatingTool\_LinkedMobIndividual\_Batch:**  this batch will get all linked bookings with only one mobility passenger and seat their PIUA records together to available railcars. 6. **RM\_SeatingTool\_Couples\_Batch:**  this batch will get all non-linked bookings with an even number of passengers and seat their PIUA records together by room ID to available railcars. 7. **RM\_SeatingTool\_Odds\_Batch:**  this batch will get all non-linked bookings with an odd number of passengers and seat their PIUA records together by room ID to available railcars. 8. **RM\_SeatingTool\_LinkedItineraries\_Batch:** this batch will get all linked bookings with no mobility passengers and seat their PIUA records together to available railcars. 9. **RM\_SeatingTool\_Others\_Batch:**  this batch will get all non-linked bookings with only one non-mobility passenger and seat their PIUA records together to available railcars. 10. **RM\_SeatingTool\_PIUA2Update\_Batch:**  Once all previous processes and batches are executed, this batch will update all PIUA records to be sat to the database (Rail Car Number, Rail Car Ordinal Number and Rail Seat Number fields). |