



BestRun Airways Powered by SAP Intelligent Enterprise

Scenario ID: 15800

Last Update: December 27, 2018

BestRun Airways Powered by SAP Intelligent Enterprise

- 1. DEMO SCRIPT OVERVIEW 3
 - 1.1. Highlights 3
 - 1.2. Why now? 3
 - 1.3. Why SAP? 4
 - 1.4. Story 4
- 2. TECHNICAL REQUIREMENTS 6
 - 2.1. Before you run this Demo 6
- 3. FLIGHT OPERATIONS MONITORING 7

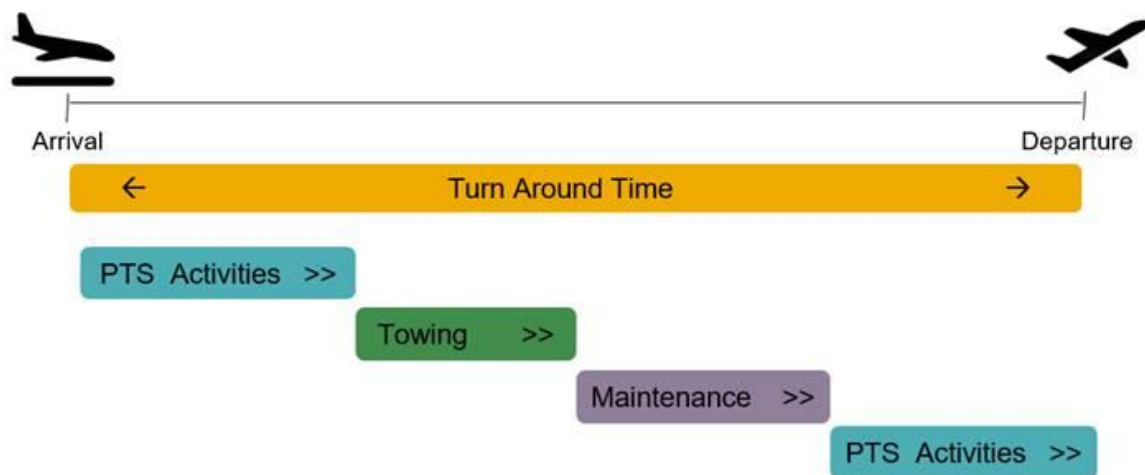
1. DEMO SCRIPT OVERVIEW

1.1. Highlights

Now-a-days, delay in flight is a very common seen across the globe. The delay might be due to various of reasons. it can be due to weather, delay in connected flights or delay in ground operation activities of the flight. There are various activities performed in between the time any flight's arrival and its departure. This time is called **Turn Around Time**. These activities are carried by the crew and the technical and other airline staffs.

Majorly this is grouped in 3 different categories.

1. Flight maintenance
2. Towing: This is where the flight after landed in one gate/stand, has been taken to other stand for the next take off or for maintenance.
3. PTS (Precision Time Scheduling): This is nothing but set of sub activities which being carried out sequentially or parallelly. This is done while the flight is in block state. E.g. gate open, passenger disembarkation, unloading luggage, fueling, loading luggage, passenger boarding and gate close. Like this any Aviation industry have 25-30 sub activities which happened before the flight take off. This is again divided into PTS Arrival and PTS departure.



There are various dependencies in between the PTS activities. Here, Passenger Boarding start activity is dependent of Gate Open Activity. Whereas the Cabin Door can be closed only after Passenger Boarding End activity. if one activity got delayed, then it will affect other dependent activities. Any delay in any activities which delay the overall PTS completion time, also leads to delay in the flight take off. Not only that, if the flight is delayed, the whole customer future journey plan is getting affected. So, this is very crucial to the Airline industry to have the real-time data of all the activities.

In this demo, you will see how effectively Bestrun Airlines is using SAP Technologies to transform the whole airline traditional business to an Intelligent Enterprise.

1.2. Why now?

1. Information about progressive status of all the Ground/Air operations is not available in real time to achieve On Time Performance.
2. Most of the Ground Operation companies in Aviation industry currently use "scheduled time" for their ground activities, for example plane cleaning requires 45 minutes as standard so it always schedule as 45 minutes even if flight is half empty.
3. In current situation Ground Ops Staff is unable to optimize ground operations and face numerous challenges specially when inbound flight gets delayed. Current model is more reactive.

4. Currently Aviation industry is only dealing with Flight operations i.e. Without having any focus on Customer E2E journey.

With the rise of digitalization, Aviation Industry are forced to use digital technologies to achieve On Time Performance and greater Customer satisfaction. Now is the right time when Aviation Industry is looking for ways to optimize resources and secure their profitability.

1.3. Why SAP?

SAP has end to end Cloud based Process Automation solution tightly integrated with S/4HANA, Hybris Commerce, SAP Cloud Platform and SAP Leonardo. SAP has the extension, integration, development and innovation platform to transform the whole airline traditional business to an Intelligent Enterprise.

1.4. Story

Christmas is around the corner. Airline businesses look to capitalize on the festive season to introduce additional flights to meet the customer demands. Whereas, Thomas, the Flight Ground Operation Manager at BestRun Airlines, is really worried. Their staff is already barely able to complete all the ground operation activities in time, which leads to delays in flight take-offs.

If one flight is delayed, the whole customer's future journey plan is getting affected. I.e. if any flight is delayed by few hours, the customer has to rebook taxis, hotels and pre planned events. So a delay in any flight not only affects the customer's future journey but also leads to customer dis-satisfaction. Especially as BestRun Airlines had some very bad press, when during last year's christmas time they had so many delays that there were numerous complaints about families not being together under the christmas tree.

BestRun Airlines listened to their customers and made "On-time all the time" their main objective for this year - however, they know they needed to invest in technology as what they have had for years won't do the job. It is time for BestRun to live up to their name and become a BestRun Airline.

Powered by SAP Solutions and Innovations, they are going to go for a full digital transformation of their existing traditional business process to achieve On Time performance in terms of Ground Operations monitoring and E2E customer journey experience.

John, the grounds crew supervisor at BestRun Airlines, his world has changed since using SAP. His and all his colleague's hope this holiday seasons is to get all of the passengers to their final destinations on time - but also that he gets off his shift on-time so that he too can be with his family. Let's see what happens at the airport now on December 24th.

With the new system of BestRun in case of a delay in any of the ground ops activities (e.g. fueling start time is delayed) the system calculates the estimated completion time. The estimated completion time is calculated based on either a deterministic approach or via SAP Leonardo Machine Learning (ML).

In the deterministic approach, the system knows the fuel loading time will e.g. take 45 min. If there is a delay by 10 min, the completion time should also be delayed by 10 min. On the other hand by using the ML approach, it is calculated based on previous data history. Also, it calculates the estimated flight take off considering the dependency in between the ground ops activities.

Using SAP Technologies, BestRun is able to capture all the information in real time, which in turn helps the ground ops team to take appropriate actions to achieve the on-time flight take off. Not only that BestRun is able to do progressive tracking of baggage and passengers – which shows every milestone covered by the bag and the passenger - it also covers the E2E customer journey experience by connecting taxi agencies, hotels, tourism places with BestRun's regular business.

All this for the customer's better experience. So, in case a flight arrival is delayed by a few hours, the system will identify the delay and it will run algorithms to inform/rebook the next affected events like taxi bookings, hotels, etc.

Now, BestRun Airlines is fully running on SAP this year after a smooth implementation. Thomas is very happy that there are no delays in flight take offs for last few months and there are increase in customer satisfactions. and John is glad to be home on time with his family. All this, thanks to SAP Intelligent

Enterprise

2. TECHNICAL REQUIREMENTS

2.1. Before you run this Demo

RECOMMENDED BROWSERS

This demo works best when using Google Chrome browser. The demo works for all C/D/I users - no login required.

APPLICATION INFORMATION

SCP CF Account Applications:

<https://account.hana.ondemand.com/cockpit#/globalaccount/SA0101080500/subaccount/d29543fc-0e93-47ae-a0e5-264e45945033/org/f366baf4-055c-471b-b843-ade3856fb96/space/8fee10dc-79b2-4b1d-bbbe-8090416b1a59/applications>

Turn Around View:

<https://sap-solution-experience-sdcplatform-prod-ta.cfapps.eu10.hana.ondemand.com/index.html>



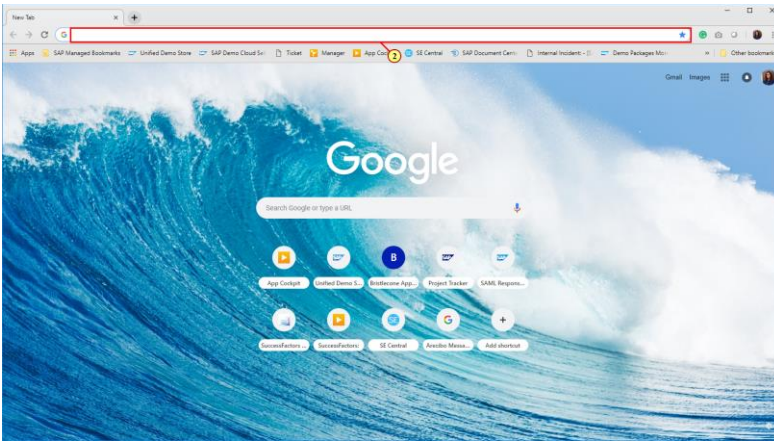

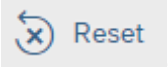
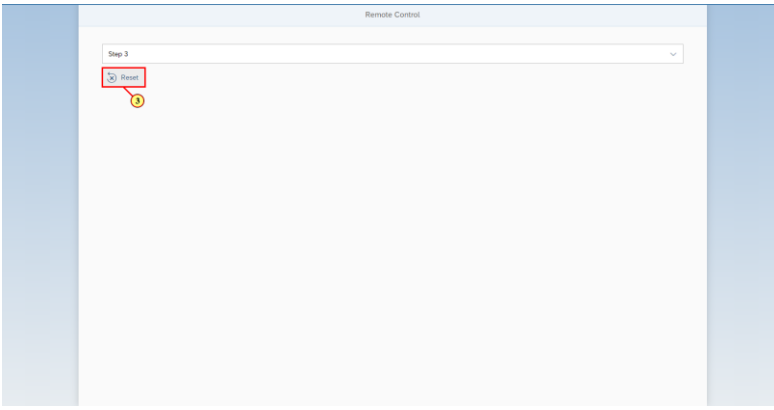
Remote App:

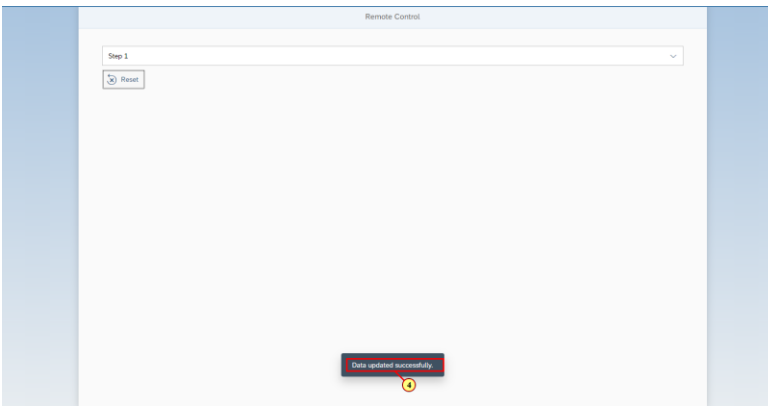
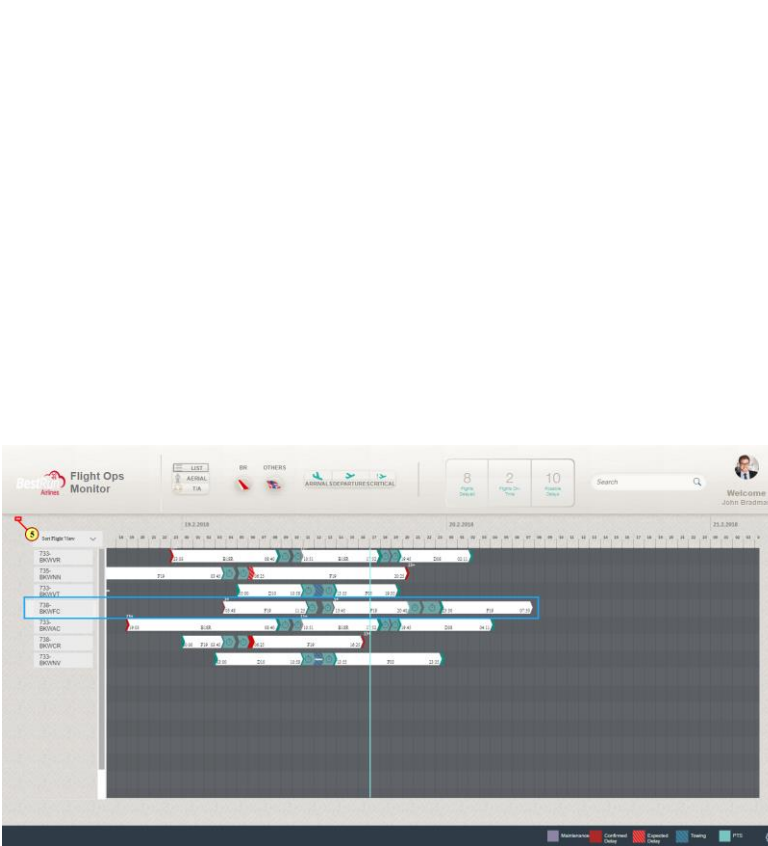
<https://sap-solution-experience-sdcplatform-prod-demoremove.cfapps.eu10.hana.ondemand.com/index.html>



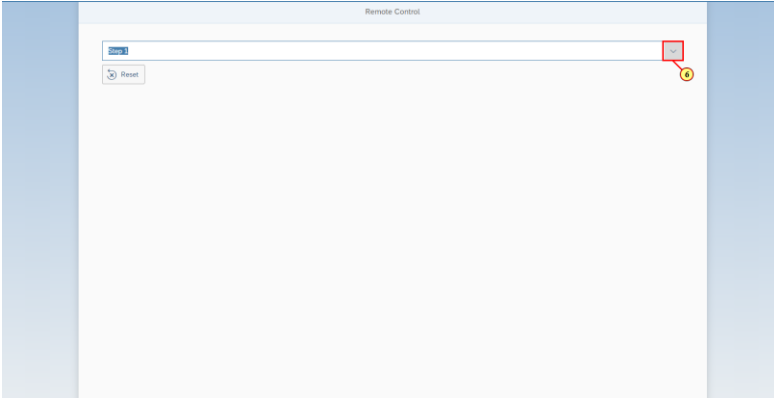
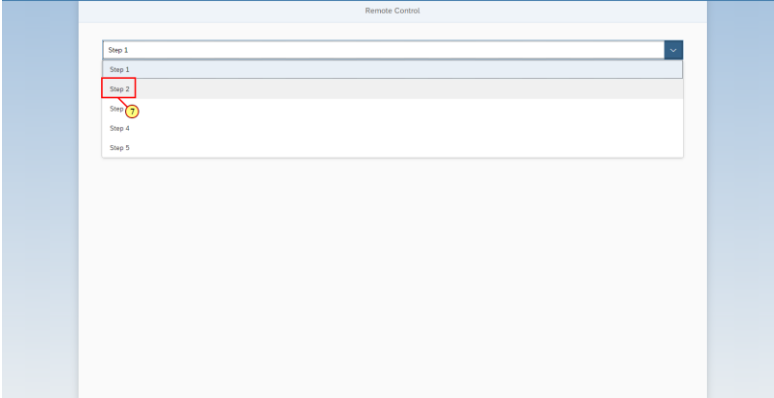
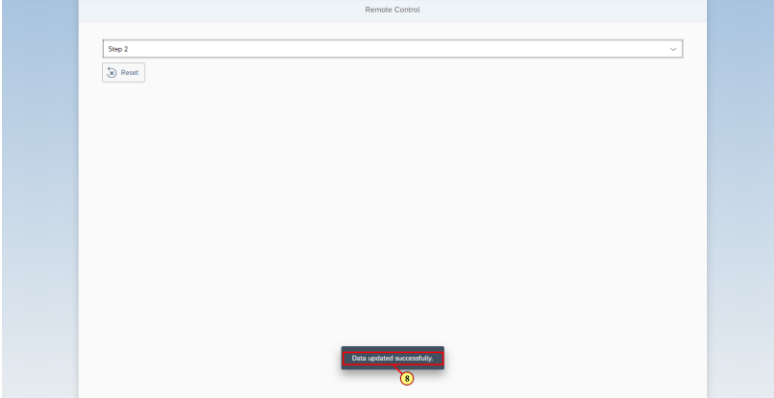
Hub View App:






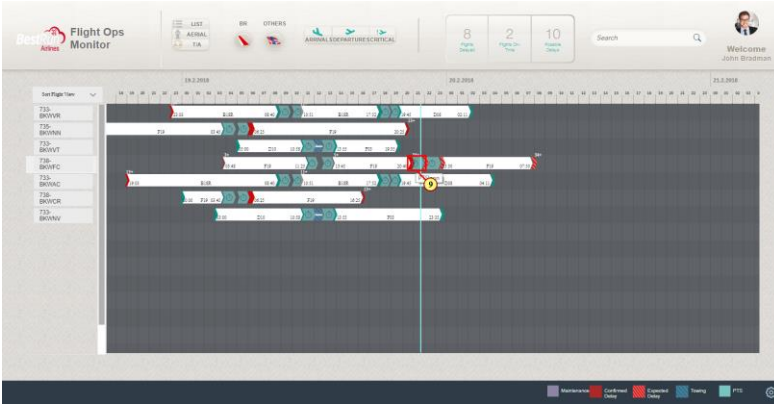


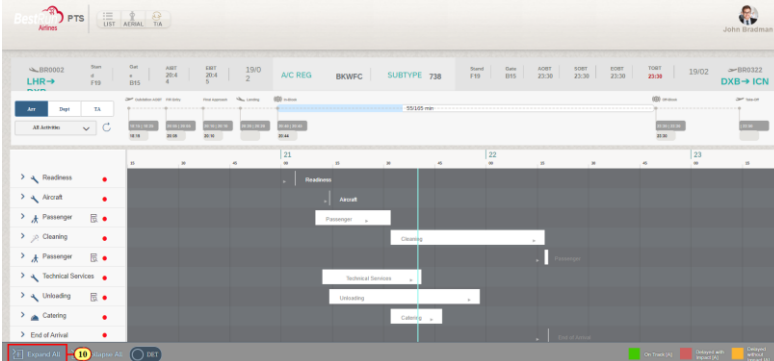
<https://sap-solution-experience-sdcplatform-prod-customerorder.cfapps.eu10.hana.ondemand.com/index.html#/flight-list>

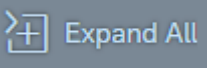


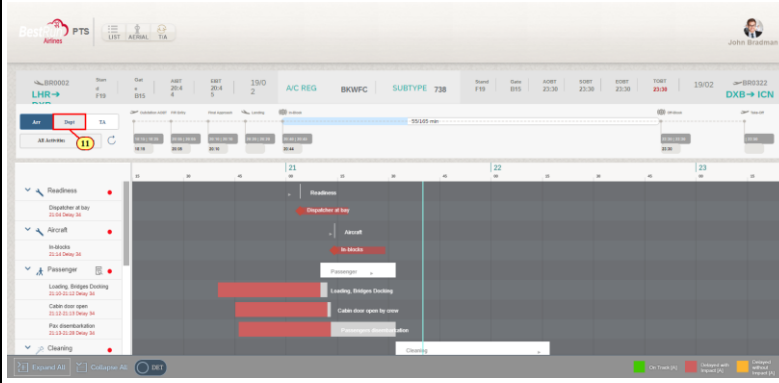

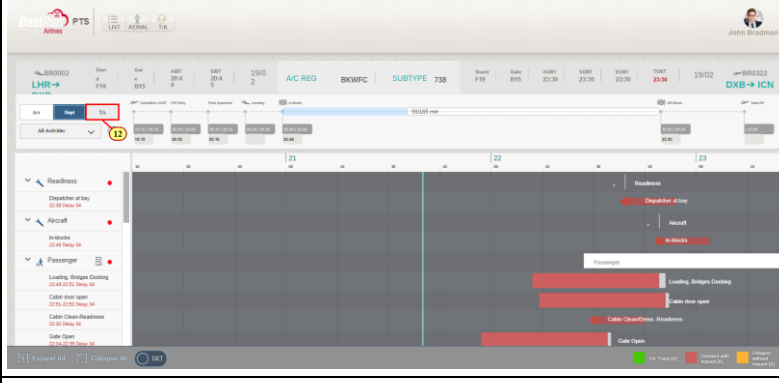

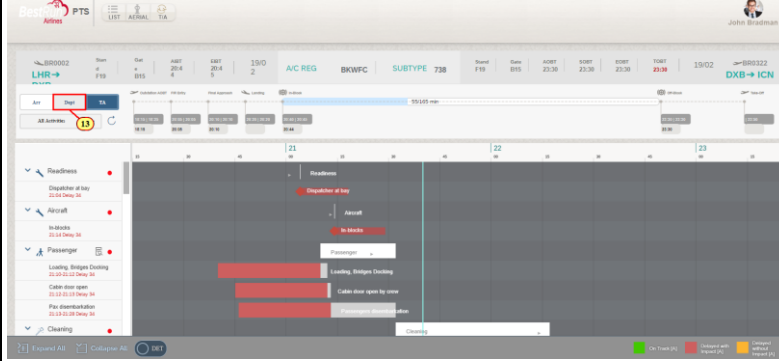
3. Flight Operations Monitoring


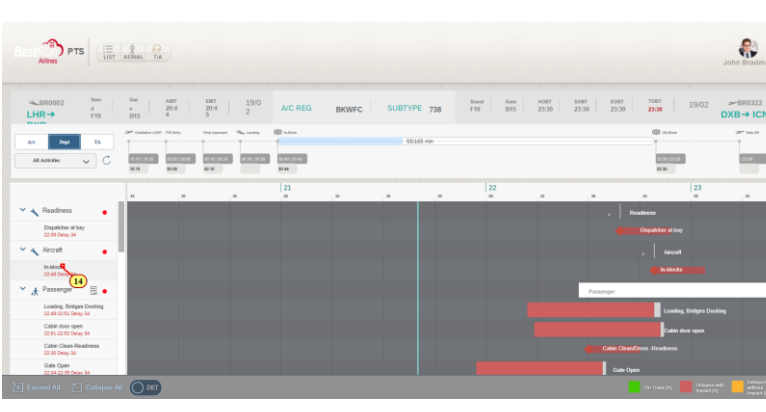




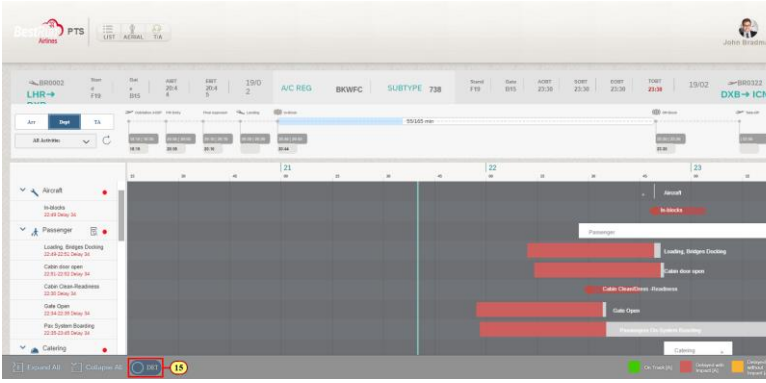
Explanation	Screenshot
1. Open Google Chrome.	 A screenshot of a Windows desktop environment. The desktop background is black. On the left side, there is a vertical column of icons. The Google Chrome icon, which is a colorful circle with a white 'G', is highlighted with a red square. A small yellow speech bubble with an 'i' icon is next to the Chrome icon.
2. Open the remote-control app.  https://sap-solution-experience-sdcplatform-prod-demoremove.cfapps.eu10.hana.on-demand.com/index.html	 A screenshot of a Google Chrome browser window. The address bar shows the URL: https://sap-solution-experience-sdcplatform-prod-demoremove.cfapps.eu10.hana.on-demand.com/index.html. The page displays the Google logo and a search bar. Below the search bar, there are several circular icons representing different SAP applications, including 'App Catalog', 'Unified Demo Store', 'End-to-end App...', 'Project Tracker', 'SAP Business...', 'Business Functions', 'SuccessFactors', 'SAP Central', 'Ariba Network', and 'Add shortcut'.
Please make sure that you are in Step-1 before executing this demo. It might be changed to other steps due to earlier demo execution  3. Click  .	 A screenshot of the 'Remote Control' interface. It shows a dropdown menu labeled 'Step 3' with a downward arrow. Below the dropdown, there is a 'Reset' button with a circular arrow icon. A red square highlights the 'Reset' button, and a small yellow speech bubble with an 'i' icon is next to it.


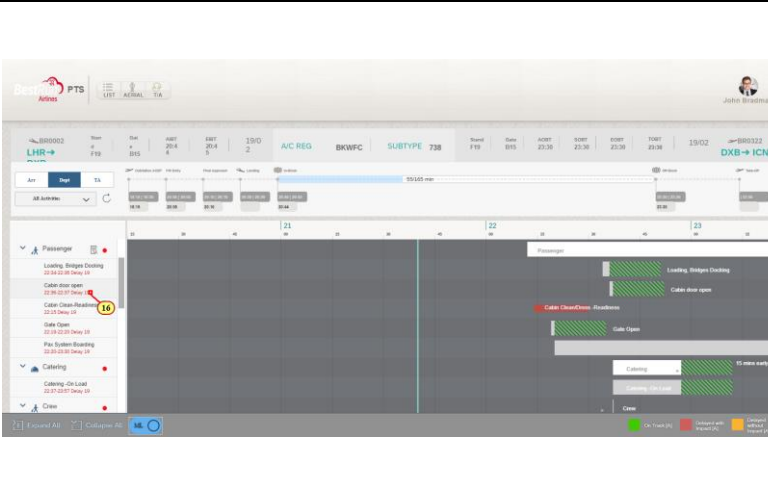
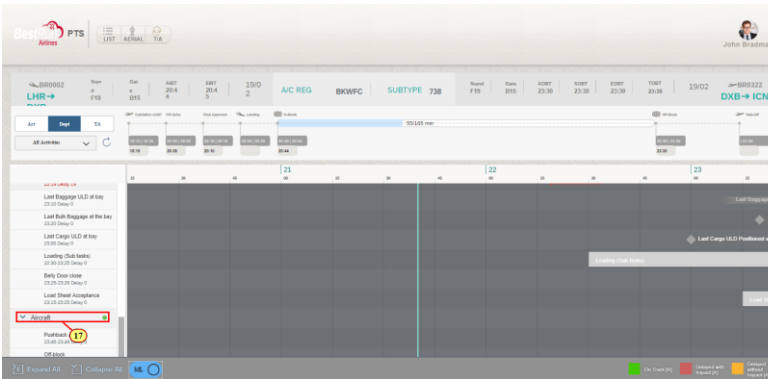
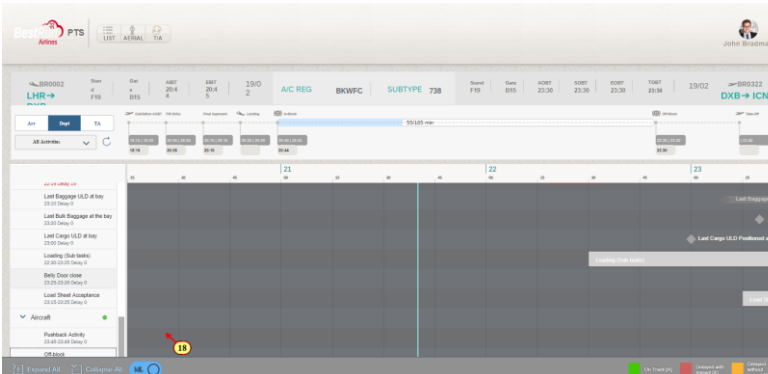


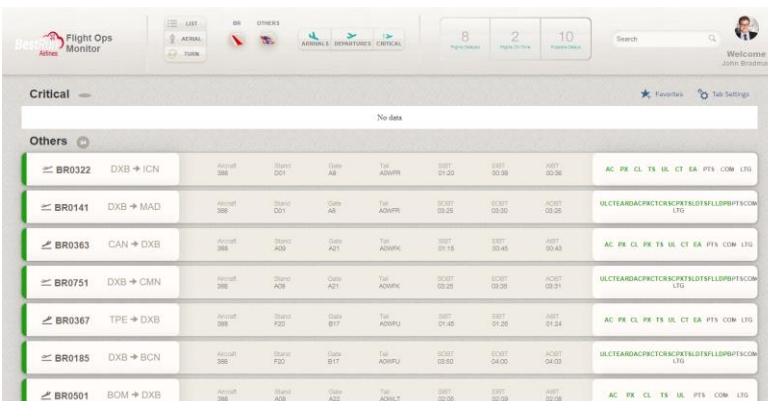
Explanation	Screenshot
<p>4. Updated Successfully.</p>	
<p>Open another tab and log into Turn Around Application. (TA) https://sap-solution-experience-sdcplatform-prod-ta.cfapps.eu10.hana.ondemand.com/index.html</p> <p>Please make sure that you are in Step-1 (Remote Control App) before executing this demo.</p> <p>You can see the activities/tasks done for any flight. On the left hand side, all the flights with unique id(Tail ID) are listed. Also there are few activities like Maintenance, Towing, PTS done for the flight to prepare for the next takeoff.</p> <p>In this scenario, let us see the flight with Tail ID 738-BKWFC which demonstrates that flight (BR0001) has started from DXB at 3:48 and landed in LHR at 11:25 in time. Again, it (BR0002) started its journey from LHR at 13:45 back to DXB after completing the PTS activity. Current timer line shows that flight BR0002 started 5 minutes late from LHR and now, it is flying towards DXB. And expected to reach by 20:40. At the moment</p>	



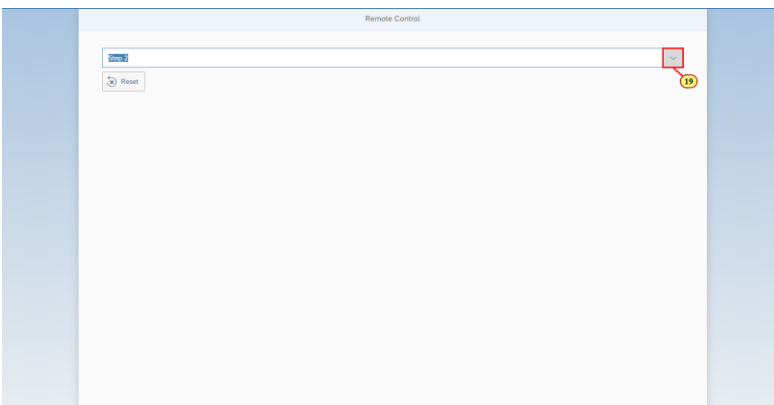
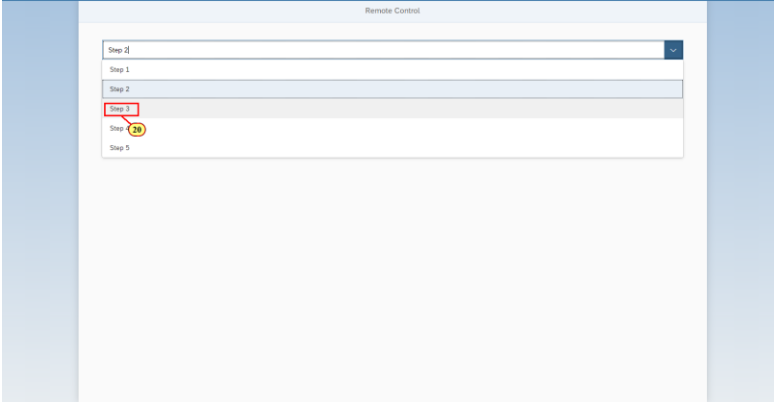




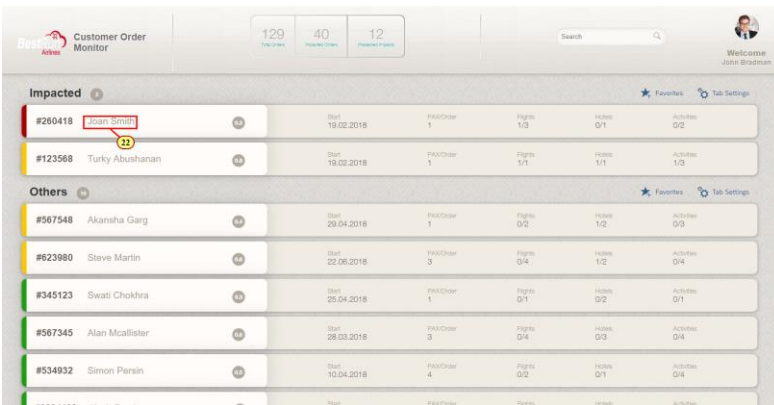
Explanation	Screenshot
<p>everything is going as per plan.</p> <p>5. Open the remote-control app.</p>	
<p> Change the Value from Step-1 to Step-2.</p> <p>6. Click .</p>	
<p>7. Select Step 2</p>	
<p>8. Updated Successfully.</p>	


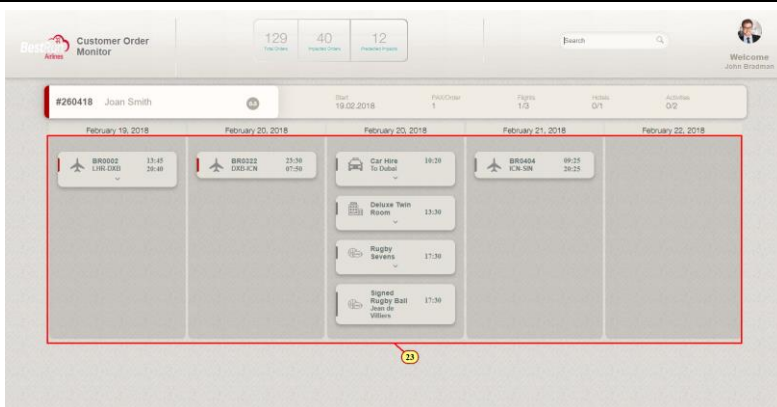
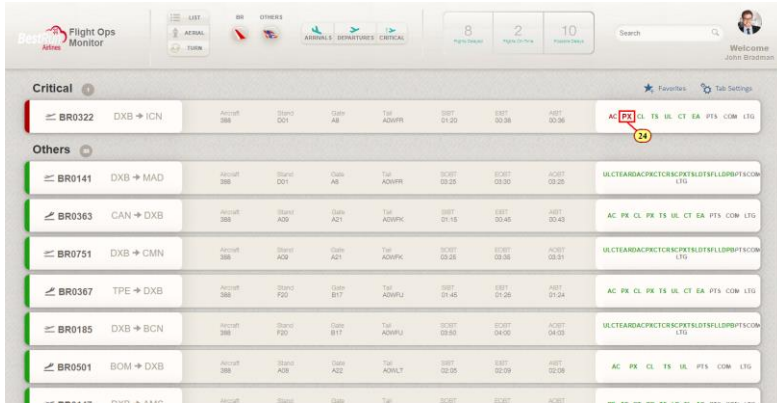
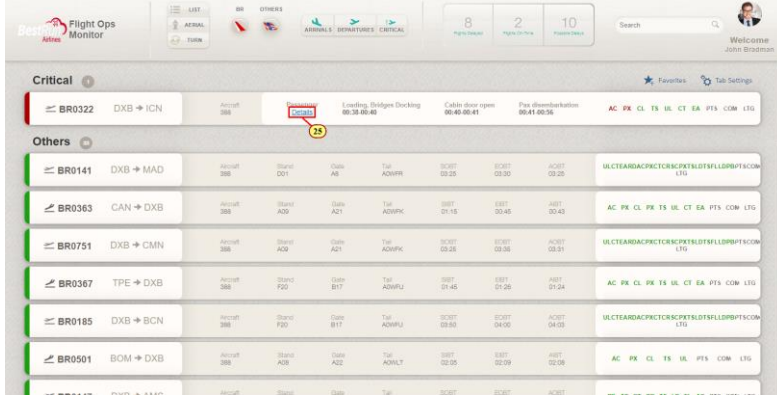
Explanation	Screenshot
<p> Open the TA app.</p> <p> You can see that the data showcasing a delay (34 minutes) in BR0002 flight arrival and expected 34 minutes delay for next flight 'BR0322'. Also, it shows expected delay for Arrival and Departure PTS.</p> <p> P.S.: You can find "Setting" button on Right-Bottom, where you can also choose the appropriate step for the demo.</p> <p>9. Click on the PTS Arrival</p> <p>Section  to see the detail in PTS application(Precision Time Scheduling).</p> <p> P.S.: PTS application should always be triggered from TA application. Not directly.</p>	
<p> The PTS application will open in next tab. On the top, all the details about the aircraft is shown. I.e. it's unique Tail ID, the incoming flight details and the outgoing flight details for the same aircraft, scheduled in/off block time, expected and actual in/off block time.</p> <p> On the left side, you can see there is delay in Arrival PTS activities due to this delay in flight BR0002. There is an option to filter based on the activity. So that respected department can monitor and take appropriate action for the concerned activity.</p>	



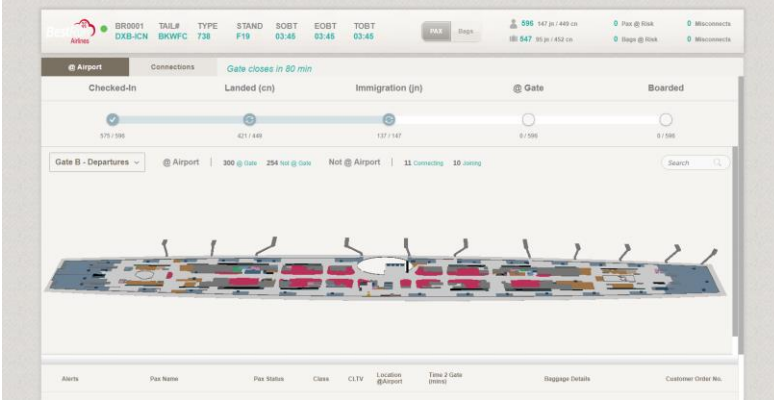

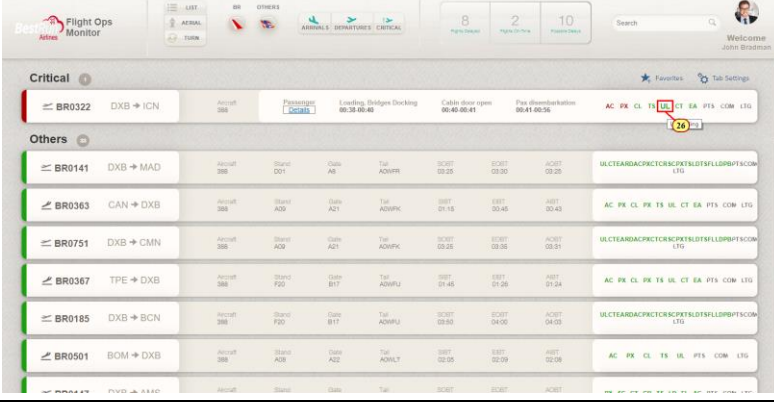
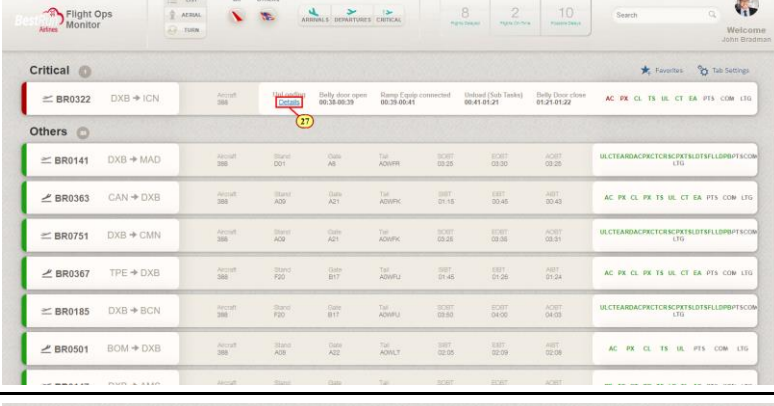


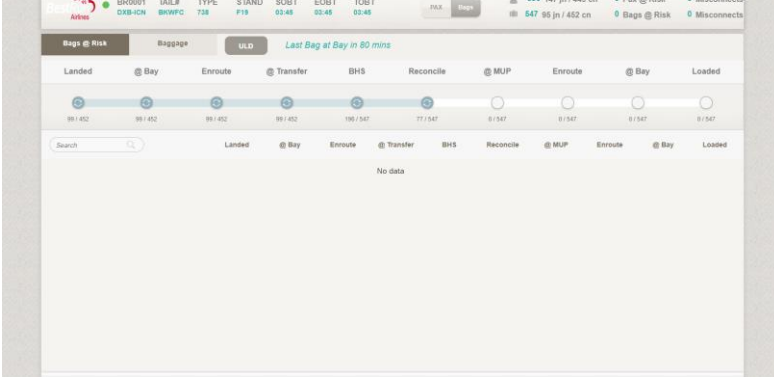
Explanation	Screenshot
<p>10. Click  to check the details of all PTS activities and sub activities. Scroll down to check all the activities.</p> <p> P.S.: Now, the PTS application is showing the data related to Arrival PTS.</p>	
<p>11. Click  tab to check the PTS departure activities. Also, you can click on “TA” tab to check all Arrival and Departure PTS activities.</p>	
<p>12. Click .</p>	
<p>13. Click .</p>	



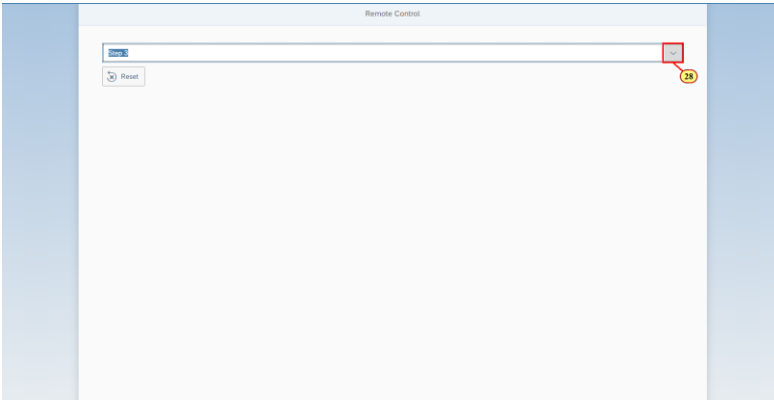

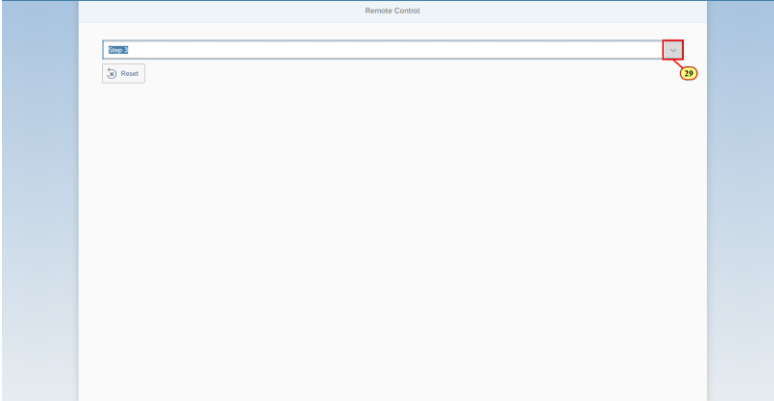

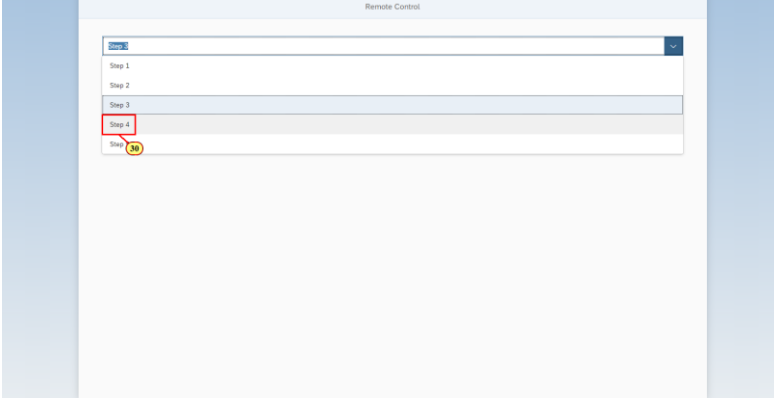
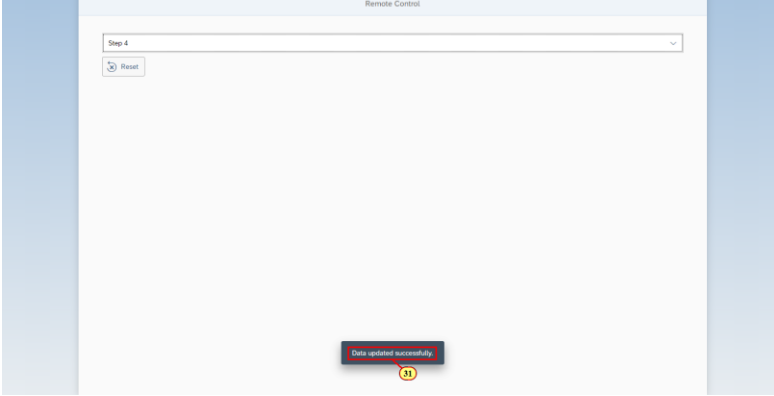
Explanation	Screenshot
<p></p> <p>You can see in the Header section of PTS application that the TOBT (Total Off Block Time) for the next flight BR0322 is in Red status (i.e. in delay status). This is as per system calculation done in the Deterministic approach.</p> <p>14. Scroll Mouse wheel down to bring the screen to desired location</p>	
<p></p> <p>Scroll the PTS activity section to check Fueling Activity. If delay is happening in any activity say here Fueling is delayed, then system calculates the estimated completion time. The estimated completion time is calculated here based on deterministic approach or via Leonardo ML approach. Deterministic is something like, system knows the Fueling time is for 45 min duration. If there is a delay by 34 min, then completion time should also be delayed by 34. But by ML approach, it calculates based on previous data history.</p> <p></p> <p>System can also calculate the next flight TOBT based on previous data history in ML based approach.</p> <p></p> <p>Switch the toggle button from "DET" to "ML" to check the TOBT of the next flight.</p> <p>15. Click .</p>	





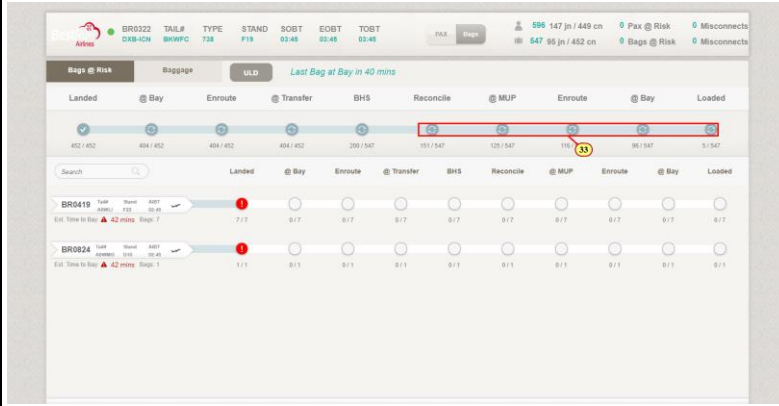


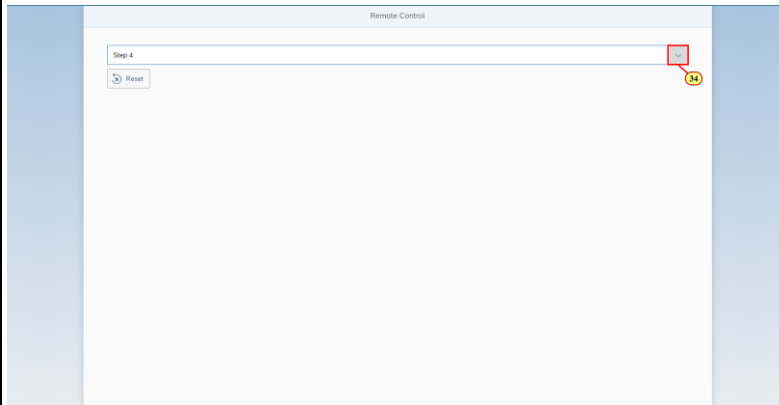
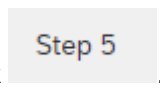
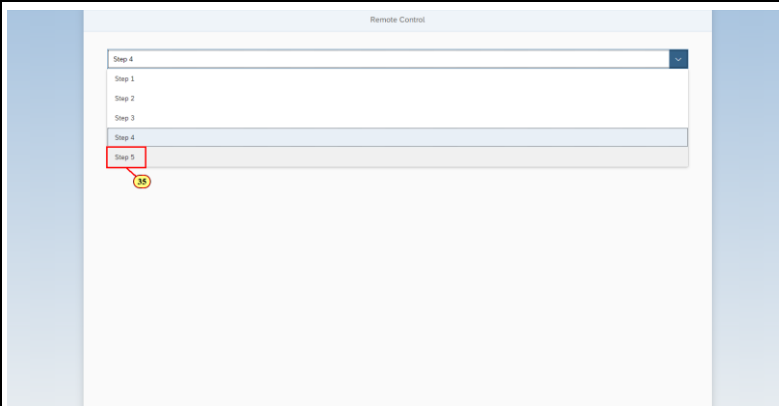
<p>Explanation</p> <p>16. Scroll Mouse wheel down to bring the screen to desired location</p> <p></p> <p>Scroll down in the activity section to check all the activities status based on ML calculation. You can see that various PTS activities are going to be completed early as per the ML. Also, you can find that the Aircraft Off-block PTS activity and thus the TOBT is not going to be affected as per the ML calculation.</p>	<p>Screenshot</p> 
<p>17. Select Aircraft</p>	
<p>18. Open the Hub View application in next tab. https://sap-solution-experience-sdcplatform-prod-customerorder.cfapps.eu10.hana.ondemand.com/index.html#/flight-list</p>	
<p></p> <p>It will show the individual flight status as of now. As of now, BR0322 flight is in green status in Hub View. P.S: You are in Step-2 of the Remote App. Change it to Step-3 to see the change.</p> <p></p> <p>Open the remote-control app.</p>	


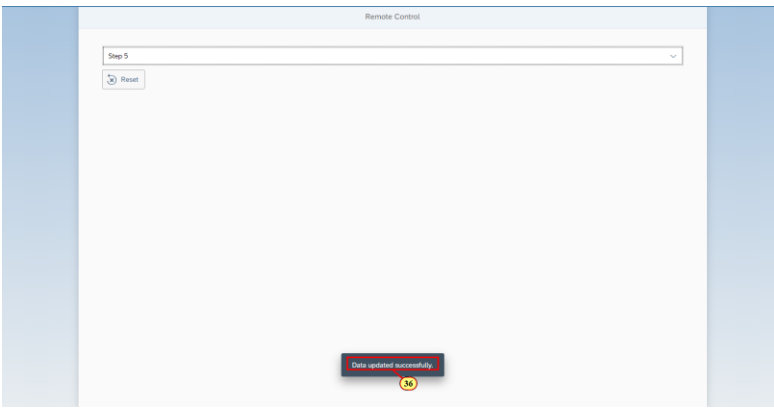




Explanation	Screenshot
<p> Change the Value from Step-2 to Step-3.</p> <p>19. Click .</p>	
<p>20. Click Step 3.</p>	
<p> Open Hub view app.</p> <p> Check the flight BR0322 status in the Hub View app. You can see, now the BR0322 is in Critical status.</p> <p>21. Click COM corresponding to BR0322 to open “Customer Order Monitoring” app..</p>	
<p> “Customer Order Monitoring” app will open in next tab where you can see the details about the customer and his/her journey. Here, you can see “Joan Smith” as customer is already impacted due to the flight delay.</p> <p>22. Click Joan Smith to check his past and future journey details.</p>	

Explanation	Screenshot
<p>23. check his past and future journey details.</p> <p></p> <p>Go back to Hub View application.</p>	
<p>24. Click PX to see the passenger details of the flight BR0322.</p>	
<p>25. Click <u>Details</u> to open the PAX Tracker monitoring app.</p>	

Explanation	Screenshot
<p></p> <p>You can see the current status of the Passenger And currently it is in Immigration Status.</p> <p></p> <p>Open the Hub View application again.</p>	
<p>26. Click .</p>	
<p>27. Click Details to open the Baggage Tracker app.</p>	
<p></p> <p>You can see the current status of the Baggage. And currently it is in Reconcile Status.</p> <p></p> <p>Open the remote-control app.</p>	

Explanation	Screenshot
<p></p> <p>Change the Value from Step-3 to Step-4. And check the status both in Passenger and Baggage tracker app.</p> <p>28. Click .</p>	
<p>29. Click .</p>	
<p>30. Select .</p>	
<p>31. Updated Successfully</p>	

Explanation	Screenshot
<p></p> <p>Reload the Passenger tracker application and check the status.</p> <p>32. You can see the status moved from Immigration to Gate.</p> <p></p> <p>Similarly, reload the Baggage tracker app and check the status.</p>	
<p>33. You can see the status moved from "Reconcile" to "Loaded"</p> <p></p> <p>Open the remote-control app.</p>	
<p></p> <p>Change the Value from Step-4 to Step-5. And check again the Pax Tracker application.</p> <p>34. Click .</p>	
<p>35. Click .</p>	

Explanation	Screenshot
<p>36. Updated Successfully</p> <p></p> <p>Reload the Passenger tracker application and check the status.</p>	
<p>37. You can see the status moved from Gate to Boarded.</p> <p></p> <p>Check the passenger movement in the airport map. You can see the remaining passengers are moving towards the Gate.</p> <p></p> <p>Now, Since the passengers are already moved towards the Gate and boarded, let's check the flight status for BR0322 in Flight Ops Monitoring – Hub View application.</p> <p></p> <p>Open the Hub View application.</p>	
<p>38. You can see there is no Critical flights. i.e. BR0322 flight is now moved out from Critical list.</p>	