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hello!
I am Colin Hamilton

😁

I am here because I love to show off ~~code~~ Field Service.

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SALESFORCE FIELD SERVICE

Appointment, work order, and entitlement management

Dynamic employee, contractor, and crew scheduling

Offline-first, easy-to-use apps for all mobile workers

Integrate with other systems and take action on IoT data

# OUR CUSTOMER – INTERNATIONAL HEALTH & FITNESS COMPANY

- 100's of employees in multiple international locations
- Global manufacturer of commercial fitness equipment
- Products sold under multiple brands
- Service side of the business operates through direct technicians, third party distributors, and providers
- IT Team includes Salesforce admins and one developer
- Field Service implementation

MAIN ISSUES WITH SCHEDULING

No way to consider **inventory** in appointment scheduling

Schedule dates to consider both **resource** availability and **part** availability

GOAL: REDUCE SHIPPING COSTS!

APPROACH – "Fill in the Gaps"

Salesforce Platform

Field Service Managed Package

FS Mobile & Experience Cloud

+

| Salesforce Data Model Updates | Custom Scheduling Component using Field Service APIs | Salesforce Flows | FS Mobile App Extensions and Flows |
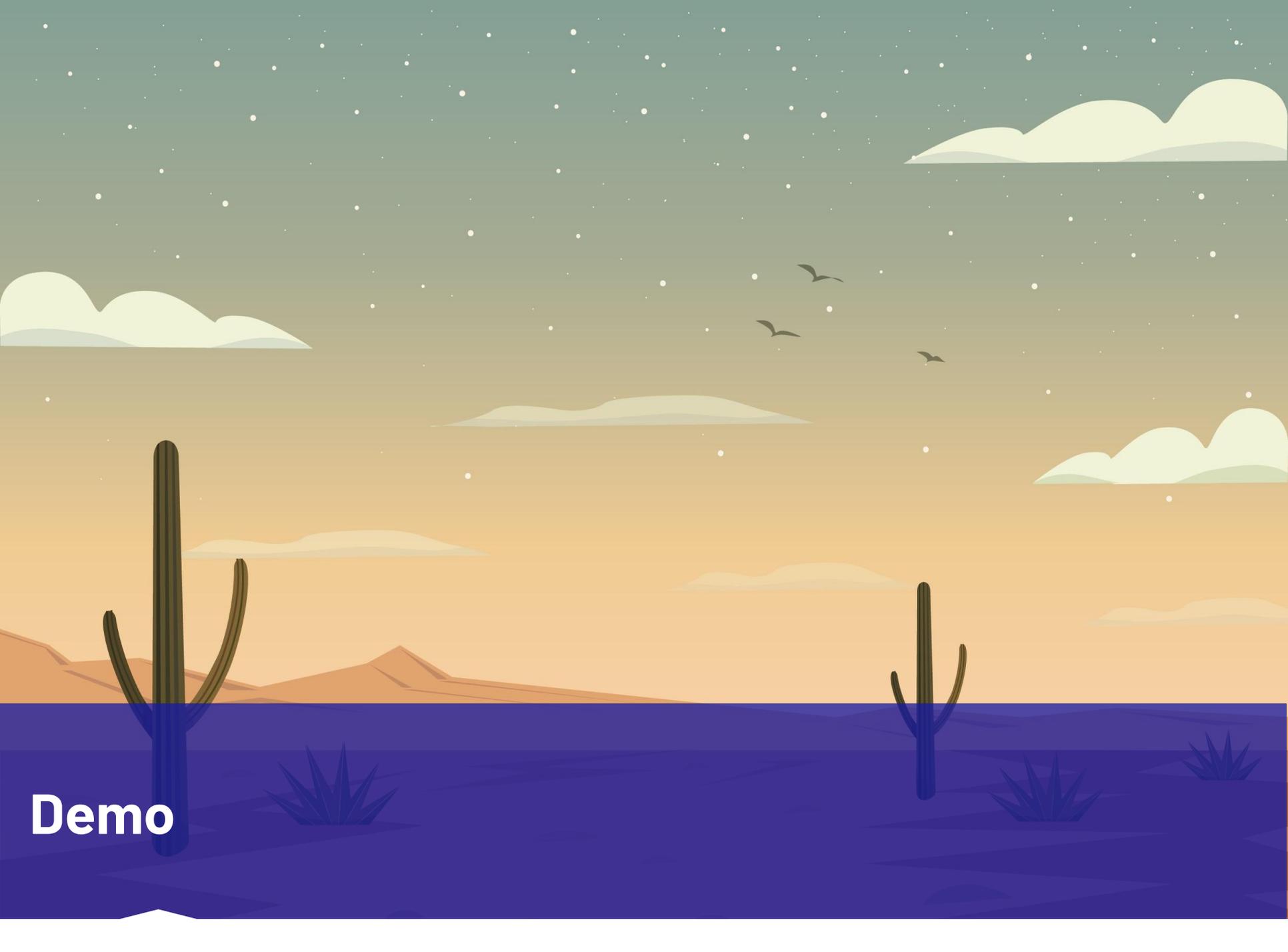
Demo

KEY TO OUR DEVELOPMENT: FIELD SERVICE APEX NAMESPACE

GradeSlotsService Class (getGradedMatrix method) + AdvancedGapMatrix Class + ResourceScheduleData Class

Example from the [Field Service Developer Guide](#):

```
1  // FSL.GradeSlotsService class
2  // The getGradedMatrix method returns a matrix of resource id's AND graded time slots
3
4  Id serviceAppointmentId = '08p1N000000qN4sQAE';
5  Id schedulingPolicyId=[SELECT Id FROM FSL__Scheduling_Policy__c WHERE Name='Customer First' LIMIT 1].Id;
6
7  // GENERATE the graded time slots for the service appointment
8  FSL.GradeSlotsService mySlotService = new FSL.GradeSlotsService(schedulingPolicyId,serviceAppointmentId);
9
10 // STORE the matrix of service resource id's and graded time slots
11 FSL.AdvancedGapMatrix myResultMatrix = mySlotService.getGradedMatrix(true);
12
13 Map<Id,FSL.ResourceScheduleData> mySRGradedTimeSlotMap = myResultMatrix.ResourceIDToScheduleData;
14 for (Id thisresourceid : mySRGradedTimeSlotMap.keySet()){
15     for (FSL.SchedulingOption thisso : mySRGradedTimeSlotMap.get(thisresourceid).SchedulingOptions ) {
16         system.debug('***** Resource Id' + thisresourceid);
17         system.debug('***** Start - ' + thisso.Interval.Start);
18         system.debug('***** Finish - ' + thisso.Interval.Finish);
19         system.debug('****** Grade - ' + thisso.Grade);
20     }
21 }
```

CUSTOM SCHEDULING – Initiate
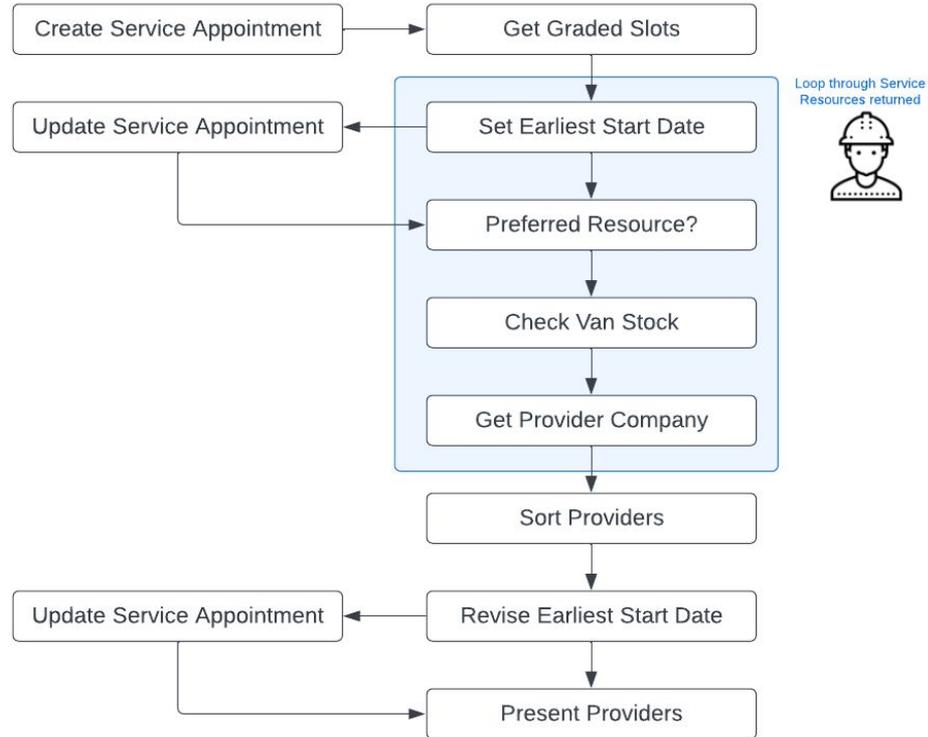
CUSTOM SCHEDULING – Expand
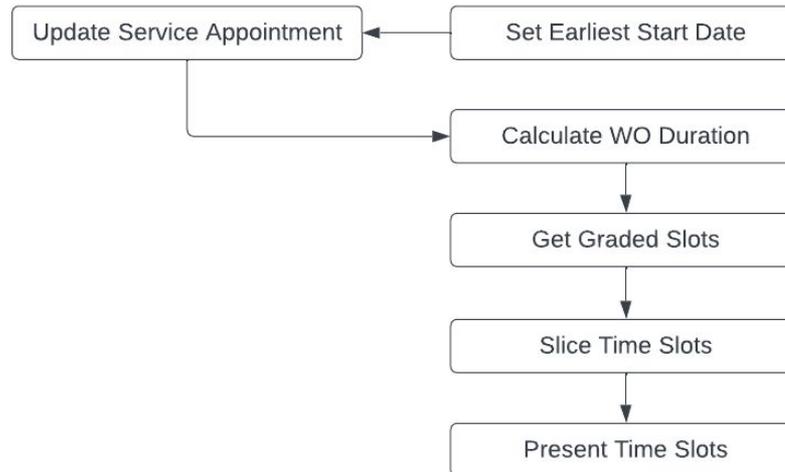
CUSTOM SCHEDULING – Schedule
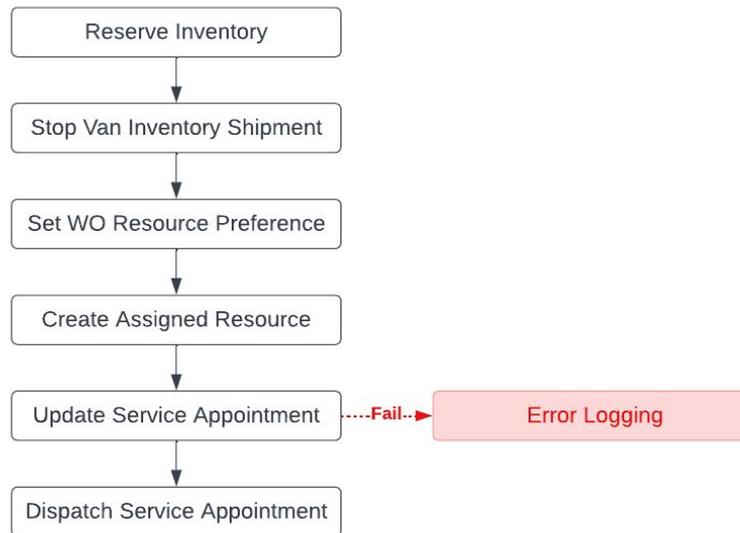
CUSTOM SCHEDULING – Reschedule/Cancel

Reschedule:

Cancel:

Reschedule flowchart:
- Check User Permissions
- Check Appointment Status
- Retrieve Scheduling Policy
- Get Graded Slots
- Slice Time Slots
- Present Time Slots
- Choose Time Slot
- Update Service Appointment ·······Fail····▶ Error Logging

Cancel flowchart:
- Retrieve Products Required
- Remove Product Items from Products Required
- Update Related Product Item Statuses
- Zero Quantities on Hand from Product Items

APPROACH SUMMARY

Validate Out-of-the-Box Solution vs. Custom

Determine Applicable Field Service Classes for slot retrieval

- AdvancedBookingService Class ~ Book Appointment
- GradeSlotsService ~ Candidates

Update Data Model

- Field Service objects
- Service Cloud objects
- Custom objects

Formula Fields and integrated data can be used to calculate Service Level Dates

Use Custom Code to slice time

- Intervals for Start Times
- Duration for End Times

Use LWC to present available times along with other information

- Readily data in Salesforce
- Use additional API calls to get other information (e.g. Google Maps' Distance API)

Morning / Afternoon / Evening slice grouping, if desired

"the Comcast way"

Make Scheduling Request based on slot retrieval

- ScheduleService for AdvancedBookingService
- Custom Code for GradeSlotsService

Use Flows to make updates to connected objects where possible (WO, WOLI, Case, Account, etc.) – otherwise use code

thanks!
Any questions?

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