

SAP FIORI UX DESIGN & BUILD CHALLENGE

Background Story

A real estate company implemented sap modules for Finance, real estate, plant maintenance, Material management, sales and distribution, EHSM and GRC.

There are total 1200 properties across Australia, but majority are in Sydney and the total 35 property managers, Few RE controllers and other staff working under the firm. Each property manager is responsible for assigned properties under the region. They are responsible for marketing and advertisement, Lease management, and Land registrations. Also responsible for monitoring the finance of each property assigned to them. They are also responsible for managing risks involved with each and every property assigned to them.

Technically these account managers involved with lot of business processes in SAP with various modules like real estate, plant maintenance for scheduled maintenance work, Asset valuation of real estate objects involves asset accounting, procurements required for maintaining property involves MM, Monitoring of risk assessment involves Risk Management in GRC. Work and safety incidents create in EHSM. Business Intelligence is implemented for reporting purpose.

Integration of process in SAP System

Mapping between Real estate and Plant Maintenance -

The Real Estate objects defined in Real estate module and the plant maintenance Location hierarchy are mapped. The understanding here is the objects created in Real estate module created under Plant maintenance.

Mapping between Plant Maintenance / Real Estate with GRC-

There is no direct automation of hierarchies created between these two modules but the plant maintenance locations subject to compliance are created manually in GRC. GRC Risks and responses are created against these organizational structures. The functional locations and real estate objects are maintained within the context data of the risks.

Mapping between Plant Maintenance and EHSM-

The required functional locations can be imported using the import tool and the PM functional location is maintained in the system.

Segmentation / Targeting / Positioning

The main industry focus is real estate safety and compliance. This app is to facilitate property managers or account managers of real estate company to monitor risks and responses associated with each property from GRC system and do risk analysis for qualitative or quantitative methods. Also allows users to view any incidents recorded for the property.

The target users are property managers or account managers and also real estate controllers or analysts and sales managers should be able to access it.

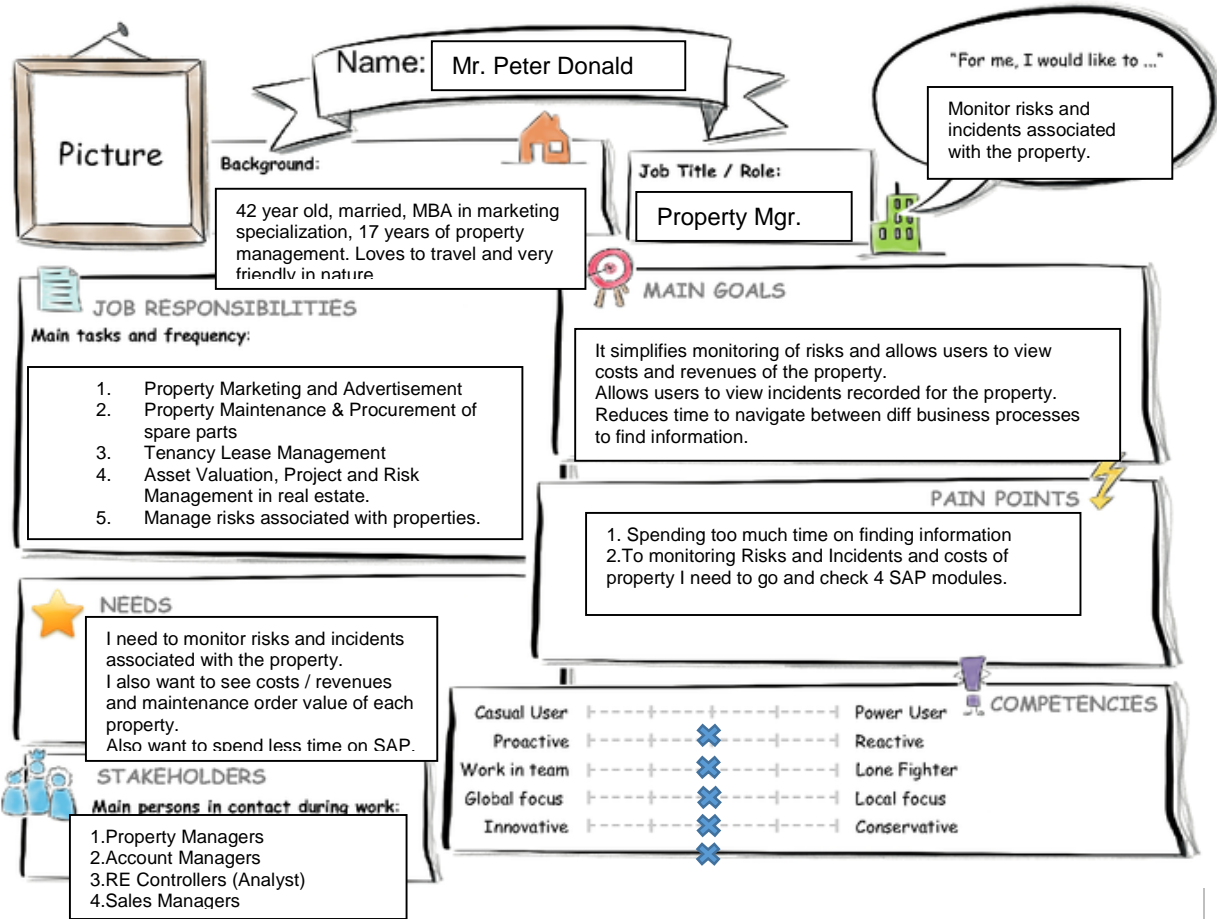
The app is positioned as a monitoring app to monitor risks associated with real estate objects.

Customer Engagement & User reasearch

We had several interviews with property managers, real estate controllers and sales managers to understand what users really want and what their pain points are..Mr. Peter Donaldson provided his views and his persona as below.

Persona of Mr. Peter Donald (Property Manager)

Mr. Peter Donaldson specialized in sales and marketing of property management and he received MBA from Macquarie University. Mr. Peter is very friendly nature and always customer focused. He is managing team of 3 young resources one involves with sales, marketing, Lease management and the other involves with complaints, risk and compliance management. The other resource who mainly monitors the site work on the projects.



Competencies

The Competencies are he is a Power User and very proactive and work in a team. His focus is organization wide and very innovative in thinking.

Current User Experience Journey

Mind Set (His current Experience)

When ever the property manager wants to analyse the risks and safety incidents of the property, he needs to get into SAP and navigate through Real estate, Plant Maintenance, GRC and EHSM modules. This is a very time taking activity.

1. Need to log into corporate portal
2. Get into SAP portal
3. Goto GRC menu
4. Goto Risk Assesments
5. Filter by Org Units
6. Open Risk

7. Goto Risk Analysis tab and review analysis created
8. To Verify Org unit info
9. Goto Org Unit Hierarchy
10. Open Org Unit
11. Verify Apetite and Threshold maintained
12. To Check workers safety Incidents
13. Goto Health & Safety
14. Open Incidents
15. Fileter by Location and review the incidents
16. Check Costs / Revenus of property in the BW report

Introduction to Design Thinking

User Experience Journey 2

Current User Experience Journey

Duration of the Journey: 40 min



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Business process

Mr Peter Donaldson is a property manager, who is accountable for 50 properties around western Sydney. Some of the properties are rental units and commercial shops. He also manages big real estate ventures.

He wants to best manage his properties with managing less risks associated with finances, incidents recorded at site, and other risks associated with the properties.

Mr. Peter Donaldson wants to quickly review property with active risks with impact analysis and costs / Revenue of property maintenance and any noted incidents that have been recorded.

In order to do this he has to follow various steps or procedures.

1. Go to GRC reporting dashboard and verify any risks associated with the organization unit (Property).
2. Or go to Portal → Risk Assessments (GRC Section) → Filter risks by Org Unit → go to risk
3. Drill down for any responses.
4. Do qualitative / quantitative Risk analysis.
5. To check the details of Org Unit go to GRC global structure or risk structure and check the details of Attribute and threshold values.
6. To verify Incidents recorded for the property.
7. Go to → EHSM → incidents → filter by location → check for any incidents created for the property.
8. To verify the maintenance costs associated with the property.
9. Go to portal → run BW / BI report assigned to the user to understand the maintenance costs per year or quarter.
10. Consolidate all the information in a spreadsheet.

To simplify the above steps we followed Fiori design principles. In my understanding the app should be very simple and should be able to provide information on few simple clicks and it has to be responsive and role based.

Fiori Design Model (Recomposition)

The Fiori Re-composition design principle is to consolidate information from multiple sources. When the account manager logs in to the app it displays all the real estate objects as defined in the hierarchy. When the user navigates to each object it will display the current active risks, responses, incidents, risk analysis and other organizational info. This will also show cost/revenues for real estate properties.

Requirements Gathering for App

Master List / Details Header

To simplify the Master List we are keeping 3 fields

1. Real Estate Object Name
2. Real estate object type (Property/building/Land/Rental Units)
3. City and Suburb

Inside the Details floor plan, I have several tabs to organize details information

| Risk | Response | Risk Analysis | Org unit Thresholds (Add. Info) | Incidents | Property costs, revenues |
|------------------------|-------------------|---------------------|---|-------------------|--------------------------|
| 1. Risk Title | 1. Response Title | 1. Analysis Type | 1. Risk Threshold table (Impact, Lower Limit, | a. Location Name | 1. Total costs |
| 2. Organizational Unit | 2. Response Owner | 2. Risk Impacts | | b. Person Injured | 2. Total Revenue |
| 3. Risk Creation Date | 3. Response Type | 3. Probability in % | | | |

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| | | | | | |
|---|----------------------|---|-------------------------|----------------------|--|
| 4. Risk Start Date | (Mitigated) | 4. Risk Level (it should allow user to analyze qualitative and quantitative analysis) | Upper Limit, currency) | c. Parties Involved | |
| 5. Risk due date | 4. Response Cost | | | d. Incident Manager | |
| 6. Risk Owner | 5. Response due date | | | e. Incident Reporter | |
| 7. Financial loss recorded | | | | f. witness | |
| 8. Risk Status (Draft / Active etc..) | | | | | |
| 9. Risk description (Long multiline Text) | | | | | |

1. Cost / Revenue of real estate object
 - a. Total cost and Revenue of the property

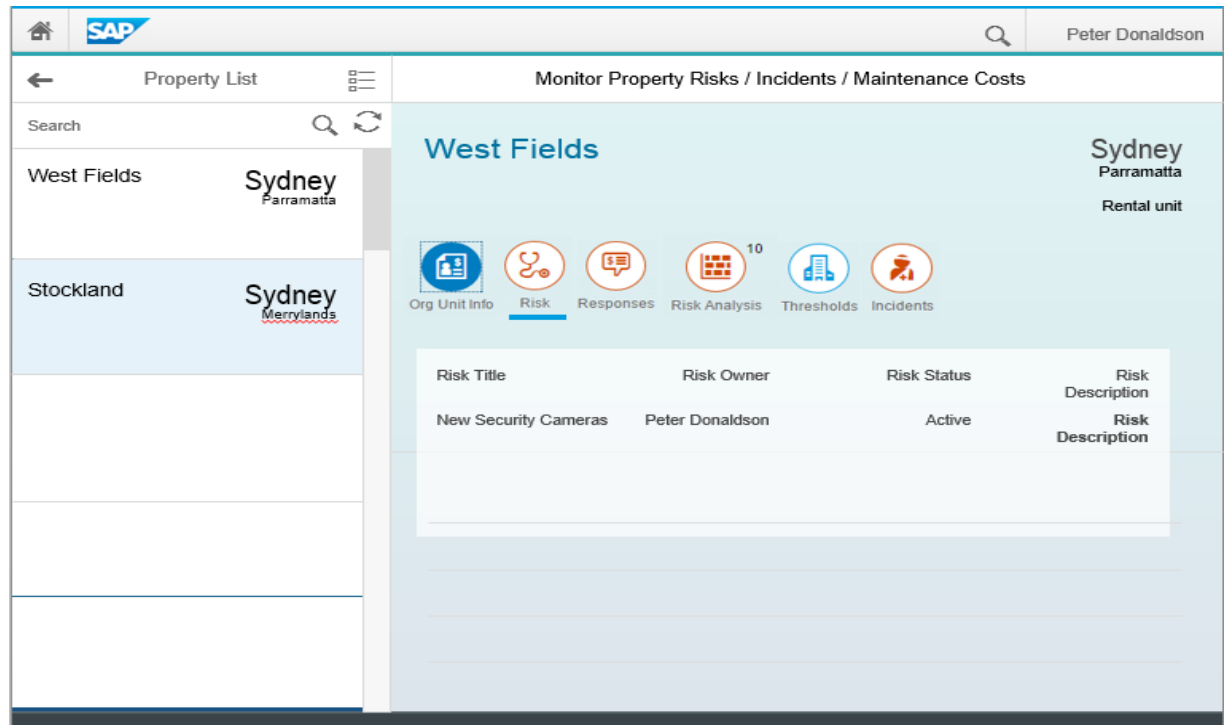
Mockup (Fiori Prototyping Kit)

Choosing Layout

There are several layouts can be used. I can use Master-Master-Details layout or Master-Details layout.
 Scenario1 → Display list of property types (Master List1) → Display all assigned properties for property type selected in Master List2. Display all other details in detail floorplan.

Scenario2→ Display all assigned properties for property manager in Master List. Display all other details in detail floorplan.

I choose scenario 2 as it is role based, and the display of properties in master list is specific to the property manager and they are limited in number. For simplicity reasons I will go with Master / Details layout.



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Fiori Design principles

Simple

The master details layout is best chosen in this case. In the Master List all assigned Real estate objects / Org Units are displayed for property manager. When property manager navigates to each one of the real estate objects the details information is displayed.

In the details section we have several tabs to view ..

1. View Risks Listed for each property object
2. When the user clicks on risk, display list of responses created to mitigate the risk in the second tab
3. Risk analysis tab to show qualitative and quantitative analysis of the risk
4. Show list of incidents created for each property object
5. Show list of costs / revenues and maintenance order value of the property in a year and for the quarter.

When the user launches the app it shows list of real estate objects assigned to the property manager. When the user click it will display Risks/Responses/analysis/ incidents/ maintenance costs of the property. It is totally 4 to 5 clicks to obtain the whole information and saves more than 60 min of user time.

Role Based

This app is designed for property managers who need to understand the risks/responses and incidents associated with the property.

Delightful

The overall outcome of the app will be good as it saves a lot of time for the user and all the required information is provided in few clicks.

Coherent

The visual design of the app is Fiori standard master / detail layout. If the user has any prior experience in using Fiori apps then it will give a similar experience as what the user is looking for. It will give a smoother execution.

Responsive

This app is primarily targeted for desktops but will also work in Mobile and tablets.

SAP Web IDE App

This app is role based, when property manager first login it shows List of assigned Properties in the Master List and in the details floor plan it shows..as below.

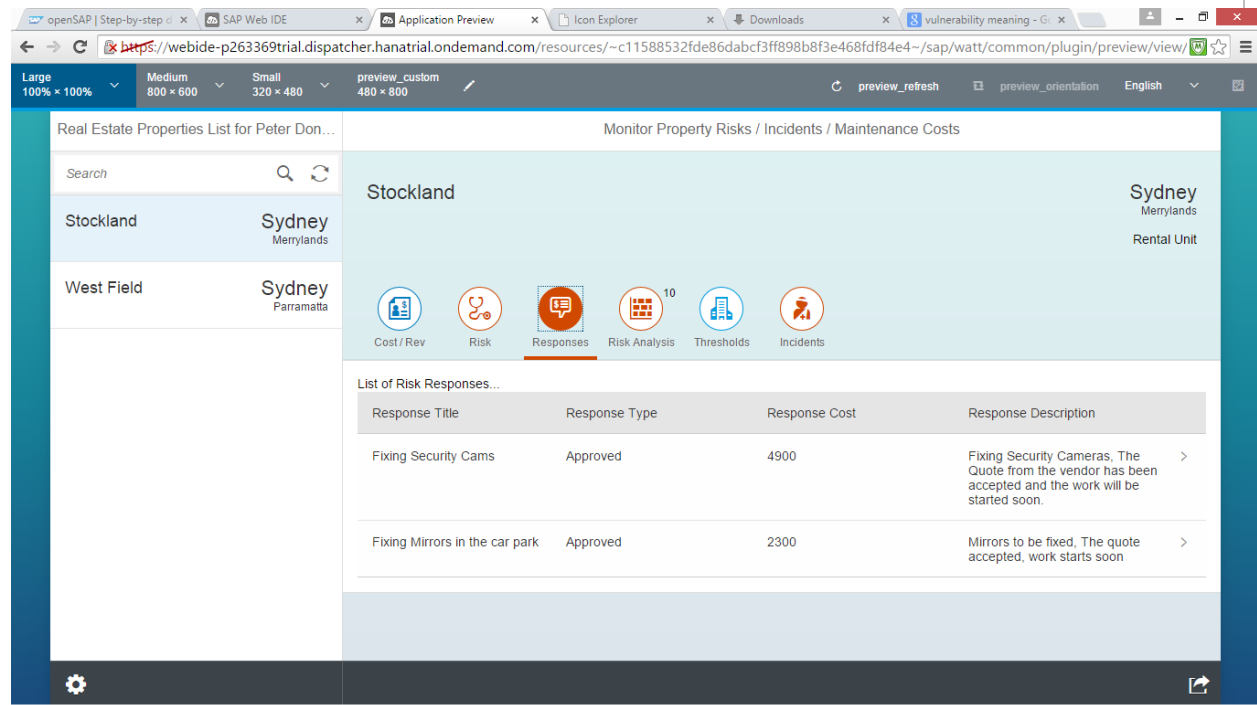
The first screenshot shows list of properties in the master list and shows risks recorded for the selected property.

The screenshot displays the SAP Fiori Web IDE interface. The browser address bar shows the URL: <https://webide-p263369trial.dispatcher.hanatrial.ondemand.com/resources/~c1158532fde86dabc3ff898b8f3e468df84e4~/sap/watt/common/plugin/preview/view/>. The interface features a top navigation bar with 'Real Estate Properties List for Peter Don...' and 'Monitor Property Risks / Incidents / Maintenance Costs'. A search bar is present above a list of properties: Stockland (Sydney Merrylands), West Field (Sydney Parramatta), and Sydney Merrylands Rental Unit. Below the list is a horizontal bar with icons for 'Cost / Rev', 'Risk', 'Responses', 'Risk Analysis' (with a '10' notification), 'Thresholds', and 'Incidents'. The 'Risk' icon is selected. The main content area shows a table titled 'List of Risks recorded in the system...':

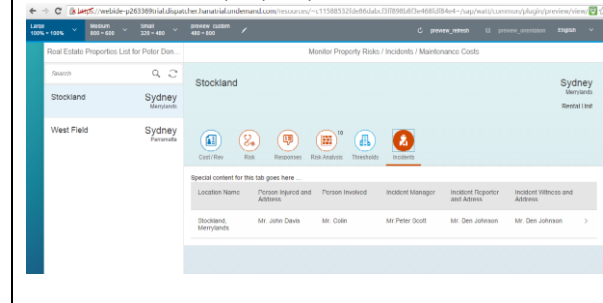
| Risk Title | Risk Owner | Risk Status | Risk Description |
|--|-----------------|-------------|--|
| New Security Camera | Peter Donaldson | Active | Found vulnerability in the Security Assessment and this has to be addressed immediately otherwise there will be a penalty from Govt. |
| Mirrors to be fixed in the parking area avoid collisions | Peter Donaldson | Active | This is to avoid collisions in the parking area |
| Wall Collapse and worker injured | Scott Davis | Draft | Investigation going on most likely the issue is serious. |

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The below screen shot shows responses recorder for each risk.



The below screen shot shows list of incidents recorded for each property.



The below screen shot shows the risk thresholds maintained for the property in GRC system.

