openSAP

TOUCH IOT WITH SAP LEONARDO
PROTOTYPE CHALLENGE

VenThingMachine

Template Description
This is a template that can be used for the Prototype Challenge included as part of the openSAP course "Touch IoT with SAP Leonardo."
Story

Today many IT accessories have become consumable goods with short life- and/or replacement cycles. E.g. many of us carry a mobile charger and charging cable along to ensure the possibility to recharge our mobiles when running low on battery. Due to that cables and chargers often get lost/stolen/borrowed and never returned and need to be replaced.

At the same time, although these items are important to us, we do not want to spent time in purchasing those. There is no complex sales cycle or consultancy needed (which we could get in a shop) etc. We just want to replace these items as quick and as easy as possible.

The solution are vending machines for electronic articles and accessories which are placed at central places (e.g. subway stations) and accessible 24/7. Customers can purchase articles per credit card or bitcoins.

With IoT it’s possible to keep track of fill levels, outages, detect fraud and manipulation attempts, analyze revenues and performance as well as making product placement decisions.
**Persona Template**

**MIKE**

CEO of Startup „VenThingMachines“

„In our momentum of growth I feel control slipping out of my hands ‘cause I’m losing the overview”

**About**

- 34, single, former Controller in a Software Company
- Passionated cyclist, creative thinker and maker
- Strong analytical background, loves to make educated decisions based on facts and figures
- ...

**Responsibilities**

- I am the founder of „VenThingMachines“
- I’m the CEO and boss of two employees (a mechanic and a vendor manager) as well as two working students
- I’m still in charge of making the strategic decisions on where to place our machines and what to sell
- On weekends I often cycle from machine to machine to check their conditions

**Main Goals**

- I want to make the company a success and scale it in not only in this city but in all major ones throughout the country
- Our resources are limited, so I must make sure to be efficient in all aspects
- With growth in mind, I want to be infinitely scalable

**Needs**

- I need transparency in vending machine performance and conditions to make placement and portfolio decisions
- I need to be able to keep an overview on the machines we put out there
- I need to be able to show competitive advantages to my investors
- Breakdowns and outages mean loss of revenue which we cannot afford. So I need to be able to immediately react upon

**Pain Points**

- Manual analysis of goods sold is cumbersome
- Refill is done by working students (which means high fluctuation). Thereof manual collection of information is error prone and should be within their responsibility
- Sending people from machine to machine on best guess to refill and maintain is not efficient
- ...

© SAP SE or an SAP affiliate company. All rights reserved.
Now try it on your own:

Point of View

As the **CEO of my company**

I need a way to **keep the overview of our machines and get insights in performance and conditions**

so that **I can make informed decision and immediately take action in case of issues**.
<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>MINDSET</th>
<th>FEELING</th>
<th>TOUCH POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Send a working student to the machines</td>
<td>- “Now he/she’s off. Hope he/she hurries”</td>
<td>😊</td>
<td>- Working Student</td>
</tr>
<tr>
<td>- Wait for the working student to return</td>
<td>- “This takes long”</td>
<td>😞</td>
<td>- Working Student</td>
</tr>
<tr>
<td>- Retrieving one formular with data per machine</td>
<td>- “Is this data correct?”</td>
<td>😞</td>
<td>- Working Student, Excel</td>
</tr>
<tr>
<td>- Additionally talking to the student whether everything was fine</td>
<td>- “This is stealing my time”</td>
<td>😞</td>
<td></td>
</tr>
<tr>
<td>- Transferring the paper-based formulars into an aggregation excel to get an overview</td>
<td>- “Is this figure a 6 or a 5?”</td>
<td>😞</td>
<td></td>
</tr>
<tr>
<td>- Analyzing the data per and across machines</td>
<td>- “Did I transfer it correctly?”</td>
<td>😞</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- “Where is vending machine 5 again located?”</td>
<td>😞</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- “Here we are. There are some action to be taken”</td>
<td>😞</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- “If I only have had this information this morning already, we would have saved a day!”</td>
<td>😞</td>
<td></td>
</tr>
</tbody>
</table>
You can use this space to insert your mockup(s):

Overview:
Detailed View:

Ven Thing Machines -

Vending Machine
US - NYC - 1411
Fully Operational

- Mapped
- Connected
- Power On
- Fraud Detection

Stock Level

Max
Alert

Prod A  Prod B  Prod C  Prod D

Sales Times (Items sold per hour)

- This machine
- Others

7 World Trade Center
NY 10001, USA
40.71265 - 74.07684

Coins running low July 5th
Manipulation detected June 29th