IMAGINE IOT
PROTOTYPE CHALLENGE

SUBMISSION FOR LUGGAGE TRACKING APPLICATION

Template Description
This is a template that can be used for the Prototype Challenge included as part of the openSAP course “Imagine IoT.”
Story

There is no more a depressing group of people you will meet than the disheveled, bleary eyed passengers at the end of a long haul flight as they stand around and stare at a baggage carousel waiting for their bags to be unloaded from the plane and sent for collection. Either head down and semi-consciously staring at their smart phones, jostling with trolleys for prime position near the bag drop zone or chasing around after bored children, this is a group of people who would prefer to be anywhere else, doing anything else. And worse still, those sad souls whose bag never arrives and after an hour of waiting patiently have to stagger off to find a customer service representative to register their lost baggage.

The objective of my IoT application is not to speed up the process of offloading bags from a plane or avoiding lost baggage altogether, although both are worthy objectives that could be considered another time. My objective is simply to provide personalized information to the passenger so they know exactly where their bag is at any time so they do not need to stand around the baggage conveyer waiting and wondering what is going on. Rather they can make use of the airport facilities, go shopping or simply find a comfortable seat and be informed exactly when their luggage is available for collection. And in the unfortunate event of lost or misdirected luggage they will immediately be aware upon landing and can make the necessary arrangements with the airline to have their luggage delivered to their home or hotel when it arrives. All this can be achieved through RFID tracking of luggage through the airport and a mobile application available to the traveler providing status updates.
Persona

Susan

Business Traveler

“Regular air travel is a function of my job and a large part of my life. I want it to be as painless as possible”

About

• 35 years old, single.
• Frequent air traveler (greater than 20 flights per year)
• Proficient user of technology. Owner of several ‘smart’ devices (phone, tablet, watch etc).

Responsibilities

• Travelling
• Negotiating her way out of the airport
• Collecting her bag

Main Goals

• Avoid wasting time
• Avoid frustration
• Get out of the airport as quickly as possible

Needs

• Being informed of the location of her luggage
•Dealing with lost luggage as efficiently as possible

Pain Points

• Lack of knowledge
• Standing around waiting for her bag
• Dealing with lost luggage
Point of View (PoV)

User + need + insight/why

As an airline passenger with checked in luggage

I need a way to be notified when my bag is available for collection

so that I do not need to stand at the baggage carousel waiting for my bag for an unnecessary length of time
<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>TOUCH POINTS</th>
<th>FEELING</th>
<th>MINDSET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touchdown at the airport</td>
<td>Airline staff</td>
<td>😞</td>
<td>Finally we are here!</td>
</tr>
<tr>
<td>Get off the plane</td>
<td>Airport signage</td>
<td>😞</td>
<td>I wish I had slept more on the flight</td>
</tr>
<tr>
<td>Walk from arrival gate through the airport</td>
<td>Shop assistants</td>
<td>😞</td>
<td>Wow this is a big airport</td>
</tr>
<tr>
<td>Browse airport shops</td>
<td>Immigration officers</td>
<td>😞</td>
<td>Feels good to stretch my legs at least</td>
</tr>
<tr>
<td>Take a comfort stop</td>
<td>Information screens</td>
<td>😞</td>
<td>Ahhh that feels better</td>
</tr>
<tr>
<td>Clear immigration</td>
<td>Information screens</td>
<td>😞</td>
<td>I love duty free shopping!</td>
</tr>
<tr>
<td>Arrive at baggage collection</td>
<td>Airport staff</td>
<td>😞</td>
<td>Lines….Oh No!!</td>
</tr>
<tr>
<td>Wait for baggage to arrive</td>
<td>Car driver</td>
<td>😞</td>
<td>Which carousel is my bag at?</td>
</tr>
<tr>
<td>Collect baggage</td>
<td></td>
<td>😞</td>
<td>How can this take so long?</td>
</tr>
<tr>
<td>Leave airport</td>
<td></td>
<td>😞</td>
<td>At least they didn't lose my bag this time</td>
</tr>
<tr>
<td>Get in a car for home</td>
<td></td>
<td>😞</td>
<td>Let’s get out of here</td>
</tr>
</tbody>
</table>
Prototype

Prototype screens for an IoT application to solve your PoV

Time to collection: 25 mins

Current Luggage Status: Delayed

Hi Susan
Welcome to Singapore Airport
Local time is 10:02 AM
Weather outside is Sunny and 30°C

Your luggage location:
- Case 1: On plane
- Case 2: In transit

REPORT ISSUE

Countdown timer

NORMAL (green)
DELAYED (amber)
LOST (red)

Link to user profile screen

Opens website for airport information

Link to time zone conversion site

Link to default weather app

Click to open full screen airport map showing current location (GPS based)

Current location of registered bags updated according to RFID tracking through ‘checkpoints’

Opens feedback form for the airport and can be used to report lost bags