openSAP

IMAGINE IOT
PROTOTYPE CHALLENGE

TEMPLATE FOR
SUBMISSION REQUIREMENTS

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

Try to follow the Design Thinking process presented in week 3, refine your initial idea for your Internet of Things (IoT) prototype, and always keep in the back of your mind these two questions:

- “What am I trying to accomplish with this IoT prototype?”
- “Can I explain clearly the context and need for this IoT prototype in two minutes or with just a few paragraphs?”

Write out the story behind your IoT prototype and try to keep it to three paragraphs or less, definitely less than one page of text. Consider answering questions such as:

- “What industry or group of customers will this IoT prototype serve specifically?”
- “How will it be optimized to appeal to its users?”

Get Feedback

To the extent possible, consider sharing this short story with one or more friends who are unfamiliar with the specifics of this industry and who are also unfamiliar with IoT. Get their feedback and refine your story so that it’s more easily understood without any prerequisite knowledge. It should be a self-contained narrative free from esoteric references or unexplained acronyms. If this initial story is coherent and easy to understand, it will effectively set the stage for additional details captured in the next part of your IoT prototype’s story: the persona.

Try to write your story here:
What I’m trying to accomplish with this IOT prototype is to improve the interaction between different departments and automation of critical tasks for Rob the shift supervisor.

Rob is a shift supervisor at an underground mine and his main responsibilities are to ensure that he reaches his production target and doing so safely and within budget. This adds a lot of pressure on him to perform all duties and keep all the checks and balances in place. On top of this huge responsibility he has to make sure explosives and material is ready for the next shift. All the necessary paperwork and material orders has to be done once he gets back to his office after a long day underground.

This prototype will integrate with different systems in the process to assist a shift supervisor in automating critical tasks and allow him/her to focus on what is important...producing effectively, keeping the people safe and staying within cost.
Persona

Explain the needs, goals, and pain points addressed

What are personas?

Personas are fictional characters based on real data to represent user types. They are extremely useful when considering goals, desires, and limitations of your IoT prototype’s users and can help guide design decisions. Personas put a personal human face on otherwise abstract data you have about your users. Once you have completed your IoT prototype’s introductory story, you should try to engage potential users of your IoT prototype to understand their use case reality.

How to create a persona?

Try to document as much information as you can about your persona. What are the characteristics of the users who will use this IoT prototype? What are their tasks in their job? Who do they work with? What are their goals in the context of the scenario covered by the IoT prototype? What do they want to achieve? What are their main needs and pain points? Based on these insights, create a persona for your IoT prototype and keep in mind the following question: Does my persona clearly and credibly represents my IoT prototype’s target users?

Templates

Please find below a filled out template for you to get an idea on how to create a persona. We also have provided an empty version of that same template. Please have in mind that you don’t have to use our template! We also want to encourage you to come up with your own approach for sharing details about your persona, if you prefer.
I want to keep my people safe and ensure they get their production bonuses. All this paperwork and difficult systems make it very difficult.

About

- 3 kids and 5 grand kids
- Working at the company for 35 years
- 5 years from retirement and enjoy training passionate youngsters.
- One of the company’s top 10 performing shift supervisors for the last 5 years.

Responsibilities

- I have to mine 5 tons per month
- I must ensure that zero harm comes to any employee
- I cannot exceed my budget
- I have to order explosives and support hardware for next shift

Main Goals

- Make sure my teams are properly trained and remain focused.
- Ensure my teams are equipped to perform their day to day activities.
- Remove any barriers that might hinder production or safety.
- Keep my teams motivated.

Needs

- I need to know how many of my employees have not come to work to ensure the team sizes.
- I need to know daily tons mined.
- I need to know how much explosives are left and I need to order for tomorrow’s shift.

Pain Points

- Difficult to place all the orders in time after a long day underground. The planner is always on my case about it.
- I don’t like working on computers with difficult software.
- I can keep track of my people but I don’t have time to keep track of my inventory.
Zoey
Mine Manager

“My people is the most important asset on the shaft and it is important to have a good relationship with them.”

About
• Married, 2 year old daughter
• Working 5 year on the shaft, 8 year mining experience.
• First woman-in-mining candidate to pass the program and be appointed.
• Graduated cum laude in her B.SC Engineering degree and completed her MBA
• Highly driven and self-motivated.

Responsibilities
• I am responsible to oversee all activities on the shaft.
• My main KPI’s are Productions, Safety and Cost.
• Analyze and identify causes for lost blasts and work with my team to prevent them.
• Zero Harm to any employee by 2018 for a measuring period.

Main Goals
• To have the best producing shaft on the whole property.
• To identify, assist and groom the team players that want to make this a better shaft.
• Become Senior Mine manager in the next 5 years.

Needs
• I need to ensure the teams are going down in with the right amount of people and correct training.
• Make sure the shift is cleared and ready to blast as soon as possible to allow the nights shift to be able to collect all the ore before morning shift

Pain Points
• Shift clear is a big paper exercise every night.
• There is no way of knowing whether or not teams are the right people by the time they are getting to their work place underground.
• Reporting is always late. I need proper information at the right time.
Persona Template

Joe
Planner
I like things to be in order. Nothing should be out of place and the same goes for my desk and my work.

About
- Divorced and no kids.
- Working at the mine for 15 years as a planner
- Great at his work and a perfectionist at everything he does.
- Likes hunting as a hobby

Responsibilities
- Ensure all stock required by the shaft is ordered or in the onsite store.
- Approve orders placed.
- Receive stock delivered to the shaft.
- Compile monthly stock reports

Main Goals
- Keep stock availability % at 95% on fast moving stock.
- Have my orders in by 15h00 in the afternoon so that it will be delivered by tomorrow morning.
- Ensure that no equipment goes unused on the shaft.

Needs
- I need to know and understand the lead times linked to any stock item
- I need to know on fast moving stock how many items are left at the main store.
- I need to know the stock requirement from my own shaft to ensure I order correctly.

Pain Points
- Shift bosses only notify me of their explosive and support requirements after 15h30 in the afternoon and I always have to carry more stock because of this.
- The reports on stock availability are always a day late because of some batch processing.
- The report on current stock levels on my shaft is also a day late so I find myself walking up and down every afternoon counting the critical stock.
How do Point of View (PoV) statements help you?
Once you have created your persona, you may have found a long list of needs. If you design for all those needs, you’ll end up with an overly complicated solution! We recommend you focus and address each separately, by creating a Point of View (PoV) for each important need of the persona.

Let’s have a look at how to create a Point of View (PoV):
1) Write down the user and his/her need. You will get that information from your filled out persona template.
2) Write down the why/insight associated with the need.

Here are some tips:
Focus on the stories that keep you up at night. If you’re stuck, extract a POV from your favorite idea. Then go further. Use emphatic language. Don’t design for everyone; choose one need, one insight.

Example:
Point of View

As a **Mother** I need a way to **prepare vegetables my children will eat**

so that **their nutritional needs are met**.

Now try it on your own:

Point of View

As a **Shift Supervisor**

I need a way to quickly and easily, place my orders for stock required

so that my teams are properly equipped for the next shift and no lost blast excuses are logged because of not having explosives.
Point of View

As a Mine Manager

I need a way to quickly and safely clear the shift every afternoon so that the blast can be executed and the night shift teams can start their work

so that there are no delays in the process of getting the ore to the surface.
Point of View

As a Planner

I need a way to ensure I order the right amount of stock on the right time

so that the teams underground have all the equipment and stock they require to ensure a blast and get the ore out.
UX Journey
Describe Actions, Mindset, Feelings and Touch points

Actions
What actions and activities does the Persona take while going through the journey to achieve their goal?

Mindset
What is on the Persona’s mind while taking the actions of their journey?

Feelings
How does the Persona feel each step of the journey? In the template you can color code the different bars. If all 4 bars are colored the persona is super happy, whereas if the persona is upset only one bar is colored.

Touch Points
What touch points does the Persona have? Those can be, for example, tools, channels, devices, conversations, and so on.
# User Experience Journey Template – empty

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>Plant explosives</th>
<th>Day shift come up from underground</th>
<th>Confirm orders</th>
<th>Clear shift for blasting</th>
<th>Execute Blast</th>
<th>Night Shift clear underground</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINDSET</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Hope we have enough explosives”</td>
<td></td>
<td>“Now for all the paperwork and them capturing it on that system again”</td>
<td></td>
<td>“Come on guys, get it in before 15h00”</td>
<td>“I hope everyone is out?. Can’t afford an accident”</td>
<td>“Ok, here we go”</td>
</tr>
<tr>
<td>“Come let’s work safely guys”</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>“Ok guys, go clear out the underground”</td>
</tr>
<tr>
<td><strong>FEELING</strong></td>
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<tr>
<td>TOUCH POINTS</td>
<td>Underground Stock levels</td>
<td>Shift Paper work Ordering system</td>
<td>Ordering system</td>
<td>HR Shift Clear Report</td>
<td>Blasting System</td>
<td>Blast Confirmation report</td>
</tr>
</tbody>
</table>

### ACTIONS
- **Plant Explosives**
- **Day Shift**
- **Confirm Orders**
- **Clear Shift**
- **Execute Blast**
- **Night Shift Clear Underground**

### MINDSET
- "Hope we have enough explosives"
- "Come let’s work safely guys"
- "Now for all the paperwork and them capturing it on that system again"
- "Come on guys, get it in before 15h00"
- "Quickly check my stock levels"
- "I hope everyone is out?. Can’t afford an accident"
- "Hope HR has their stats right on this report"
- "Ok, here we go"
- "Ok guys, go clear out the underground"

### FEELING
- 😊 (Smiley)
- ☹ (Sad)

### TOUCH POINTS
- **Underground Stock Levels**
- **Shift Paperwork**
- **Ordering System**
- **HR Shift Clear Report**
- **Blasting System**
- **Blast Confirmation Report**
Prototype
Prototype screens for an IoT application to solve your PoV

https://standard.build.me/api/projects/bd5d026c6f0dffa0cd438c0/prototype/snapshot/latest/index.html#/14775351772442023_S0