

3 Simple Steps to Writing Effective Error Messages



3 Simple steps to writing effective error messages

“The best error message is the **one that never shows up**”

However, when it appears, it should not only serve the purpose of alerting the user that something has gone wrong, but should also provide ways of recommending solutions for recovering from the error with minimal impact to the users.

Step 1: Communicate what has gone wrong

Step 2: Provide a solution to recover

Step 3: Communicate with a purpose

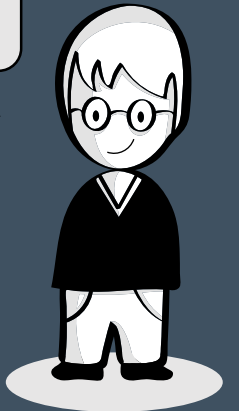
- a) be clear and concise
- b) be empathetic
- c) be conversational



#1 Communicate what has gone wrong

- It is important for the end users to know what's going on with their system. This avoids frustration and gives them an opportunity to understand the error.
- Communicating what has gone wrong avoids uncertainty and reduces churn.
- At times, it helps users in troubleshooting the issues by themselves so they can advance with their daily tasks.

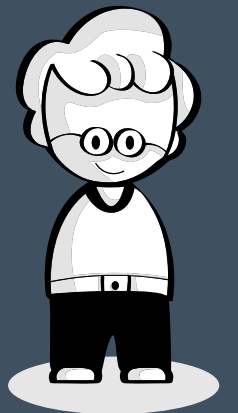
Right, I see exactly what happened here.



#2 Provide a solution to recover

- Providing a solution to recover from the error saves users valuable time and effort.
- Providing assistance to immediately take action comforts the users and makes them feel supported.
- Providing a clear solution or way to proceed avoids unnecessary escalations to SAP support.

Great, that will be an easy one to fix!

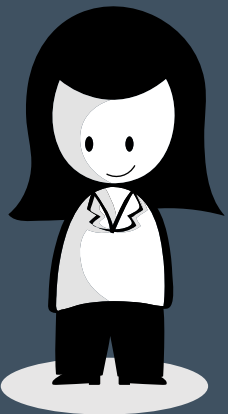


#3 Communicate with a purpose

Be clear and concise | Be empathetic | Be conversational

- State facts but avoid jargon
 - State specific problem areas but avoid technical language.
- Be relevant
 - Focus on the specific problem that the user should be aware of and/or take action on.
- Be concise and disclose information progressively
 - Provide minimal information as needed so the user can immediately recover from the error and complete the task.

That's clear, I don't need the technical details.

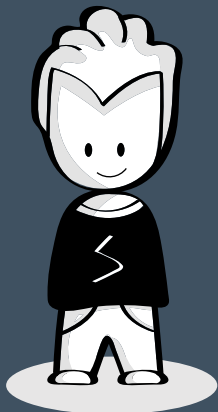


#3 Communicate with a purpose

Be clear and concise | Be empathetic | Be conversational

- Be polite and positive
 - Don't blame the user for any error that might have occurred. Avoid text in upper case as it looks intimidating.
- Give clear directions
 - Clear directions help in retaining the user's attention and clear off impediments in completing a task despite an error.
- Don't cause panic
 - Avoid negative phrases such as, 'fatal exception', 'irrecoverable error' and so on, as this may cause panic and frustration among users.

I'm relieved it's not my fault something went wrong.

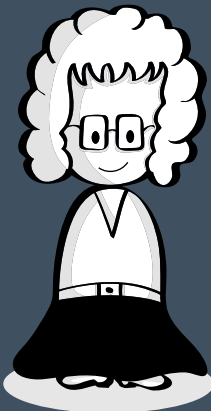


#3 Communicate with a purpose

Be clear and concise | Be empathetic | Be conversational

- Engage with the user
 - Talk to the user like you would in person. Use contractions such as 'don't', 'that's', and so on, where possible.
- Be consistent
 - Use a consistent tone and style that match with the rest of the product. A seamless and consistent experience helps in learnability and memorability.
- Speak in the SAP brand voice
 - Be clear, insightful, approachable, and optimistic in your communication.

SAP folks are
always so nice
and polite!



Checklist for writing effective error messages

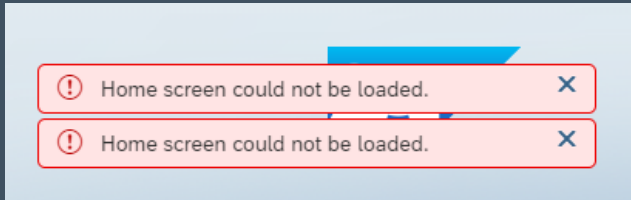
- Communicate why the error has occurred
- Communicate how to recover from the error
- Use simple language and avoid technical jargon
- Provide only minimal information as needed so the user can immediately recover from the error and complete the task
- Do not use language that blames the user or sounds rude and intimidating
- Provide clear directions on the next steps
- Do not use negative words that might cause panic
- Communicate with the user like you would in person
- Communicate consistently across the application, in the SAP brand voice

Practical Examples

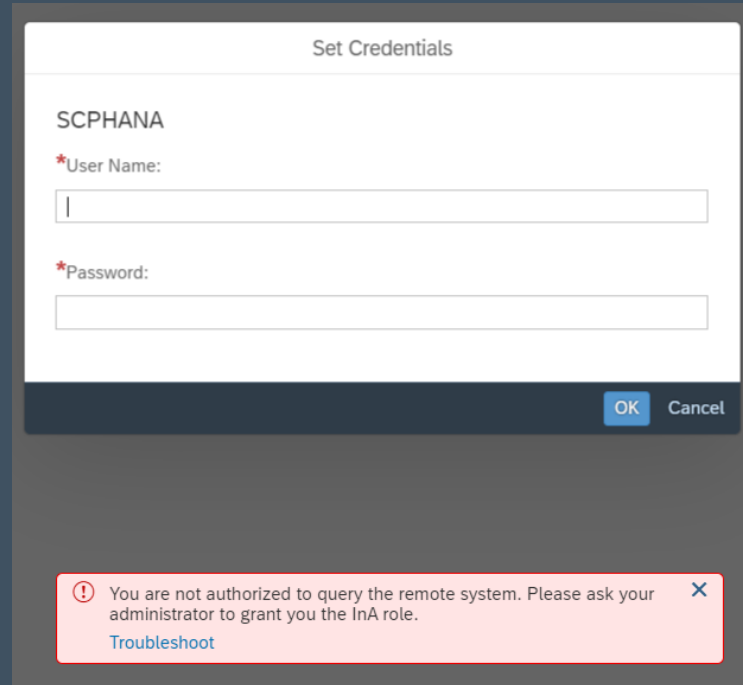


Examples

Checklist item #1: Communicate why the error has occurred



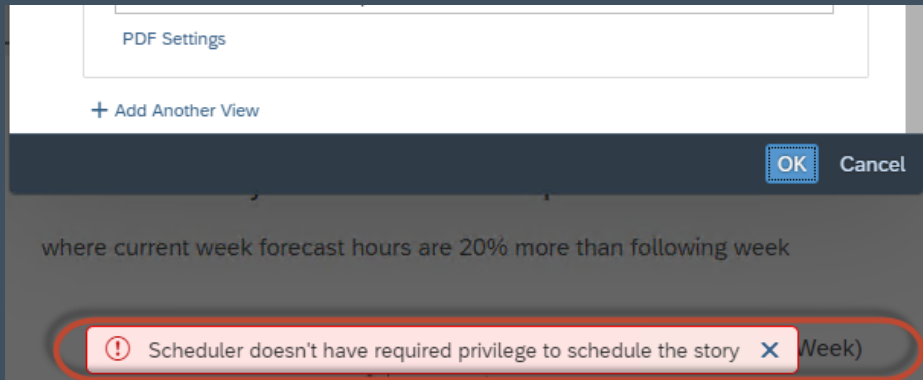
The reason why the home screen could not be loaded has not been communicated.



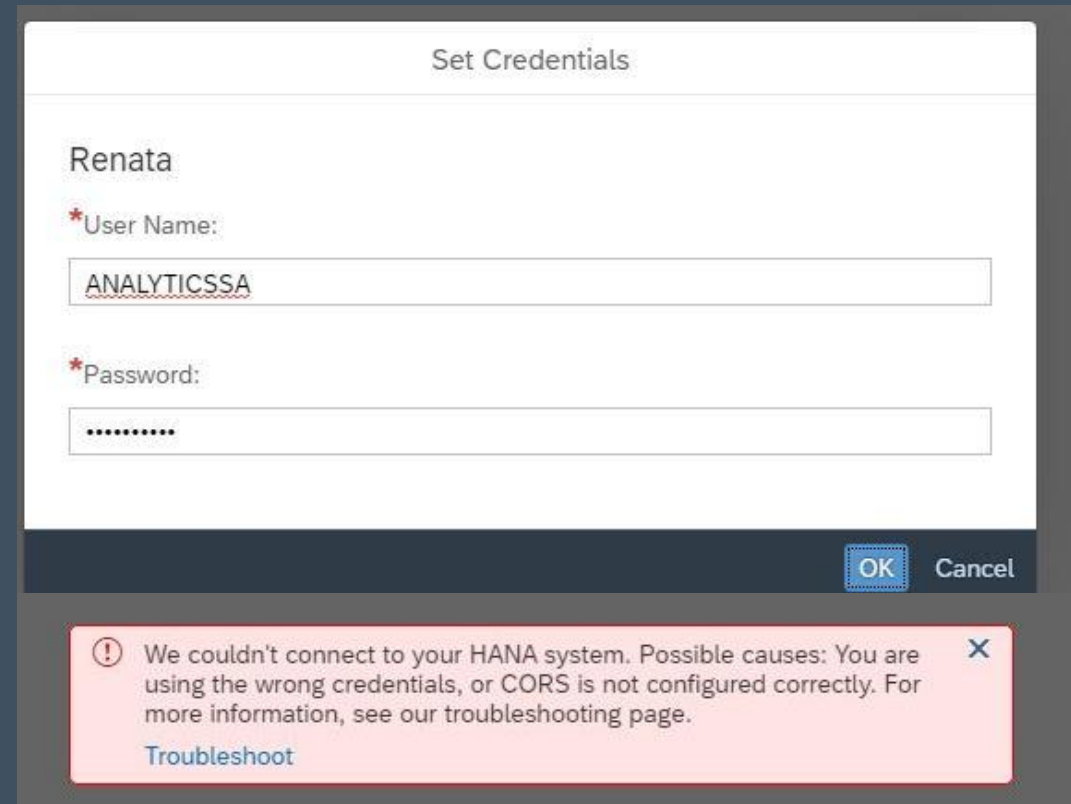
The issue related to authorization is highlighted here right at the point of interaction to avoid further errors while querying. Although the message can be toned down a bit by avoiding negative terms such as “you are not authorized”, it has captured the reason for the error.

Examples

Checklist item #2: Communicate how to recover from the error



By simply communicating that the scheduler doesn't have the necessary privileges, we don't help users from recovering from the error. They need to know how to obtain the correct privileges.




This message calls out the probable causes and recovery methods, in addition to a troubleshooting link to further analyze the issue.

Examples

Checklist item #3: Use simple language and avoid technical jargon



 Error

A technical error occurred. Please try again later.



```
{
  "message": "HTTP request failed",
  "headers": [],
  "statusCode": 500,
  "statusText": "",
  "responseText": "TSV_TNEW_PAGE_ALLOC_FAILEDRuntime Error: TSV_TNEW_PAGE_ALLOC_FAILED: The OData request processing has been abnormally terminated. If you use SAP S/4HANA, please contact your SAP administrator."
}
```

Close

This message is not comprehensible, neither does it help in troubleshooting. Even for runtime errors, a brief introduction to the error would have helped.



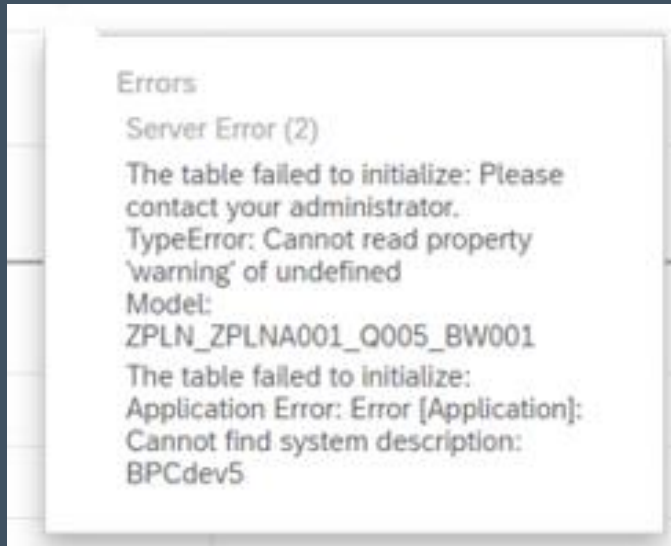
5,793,271,100.64	250,656,767.61	383,026,331.76	353,538,637.06	395
-631,603,214.80	33,348,348.58	-2,683,845.42	-128,122,412.86	-2
7,177,535,910.88	705,456,819.24	797,940,894.54	751,669,306.58	327
-941,253,659.56	-134,383,870.84	-49,651,691.59	-150,707,338.38	-55
0.00	0.00	0.00	0.00	
5,161,333,134.12	136,366,066.19	303,301,600.16	534,405,330.03	71

 We're sorry, some of the fields contain an invalid character (-) because of which we are unable to filter them for you. 

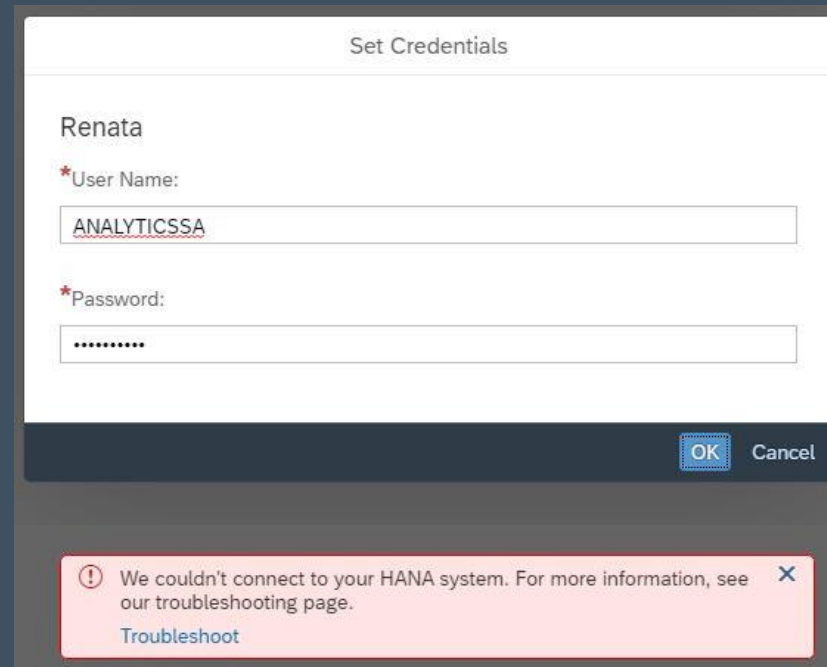
Simple language helps users identify the issues sooner and take action.

Examples

Checklist item #4: Provide only minimal information as needed so the user can immediately recover from the error and complete the task



The amount of information contained in this message is overwhelming, with the error being repeated with multiple causes.



The primary error with the connection is called out and a link to troubleshoot the issue is provided.

Examples

Checklist item #5: Do not use language that blames the user or sounds rude and intimidating



Set Credentials

SCPHANA

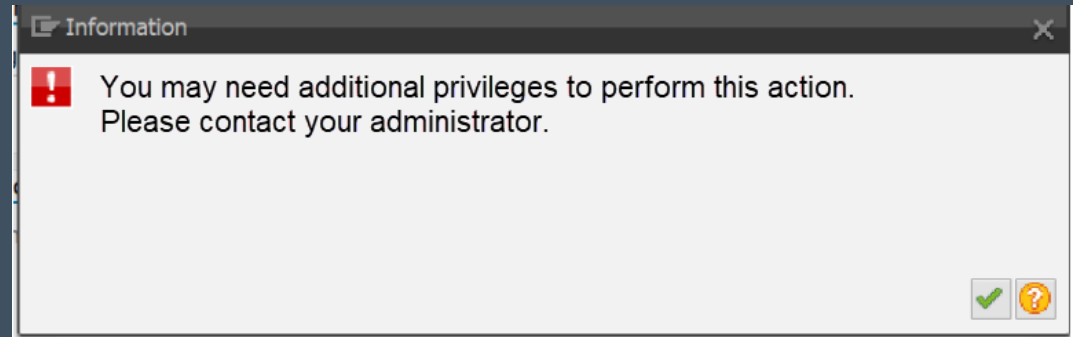
*User Name:

*Password:

OK Cancel

! You are not authorized to query the remote system. Please ask your administrator to grant you the InA role. [Troubleshoot](#)

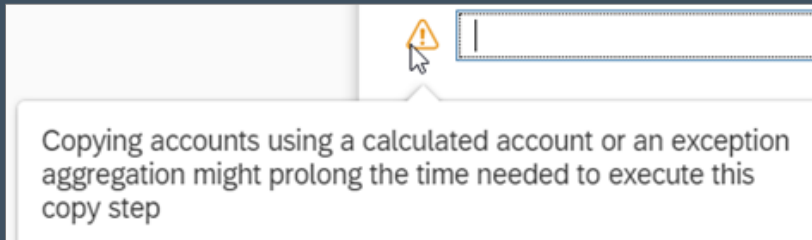
Terms such as 'not authorized' is intimidating and could be toned down to a more positive tone.



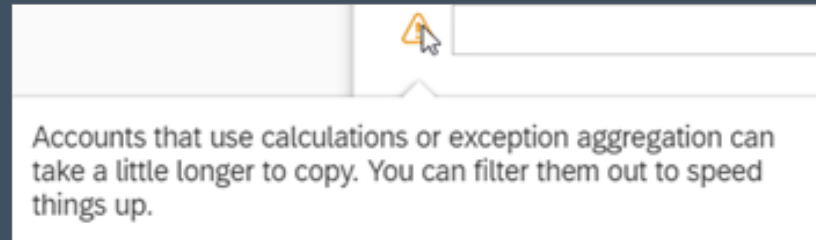
A polite and positive language gives the end users reassurance and confidence in proceeding with their tasks.

Examples

Checklist item #6: Provide clear directions on the next steps



We've warned the user that copying accounts that use a calculated account may take time, but have not provided directions on how to make this task easier.



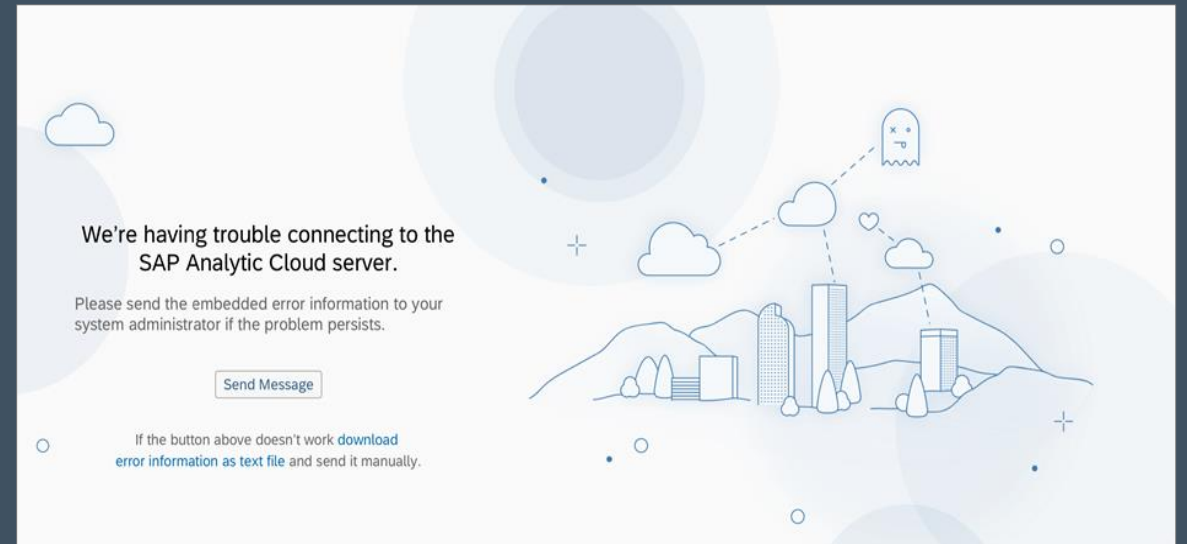
In addition to stating the issue or constraints, we have also provided a direction on how to speed up the task of copying accounts.

Examples

Checklist item #7: Do not use negative words that might cause panic



Terms such as 'exception', 'failure', 'can't read', and 'could not find', impact the morale of users and push them in thinking if they have done something irreversible to the system.



Although the reason for the connection failure could be issues at the user's end, a tone that does not put the onus on the user is more encouraging.

Examples

Checklist item #8: Communicate with the user like you would in person



PDD - Performance Dialogue Dashboard [PROD]

Status: Failed
Parent Story: PDD - Performance Dialogue Dashboard [PROD]
Number of Views: 1

▼ Details

View Name	Status	Message
View 1	Failed	The artifact couldn't be sent to mail delivery service

OK

The passive tone of this message is very formal and mechanical and void of an effort to make a personal connection with the end user.



PDD - Performance Dialogue Dashboard [PROD]

Status: Failed
Parent Story: PDD - Performance Dialogue Dashboard [PROD]
Number of Views: 1

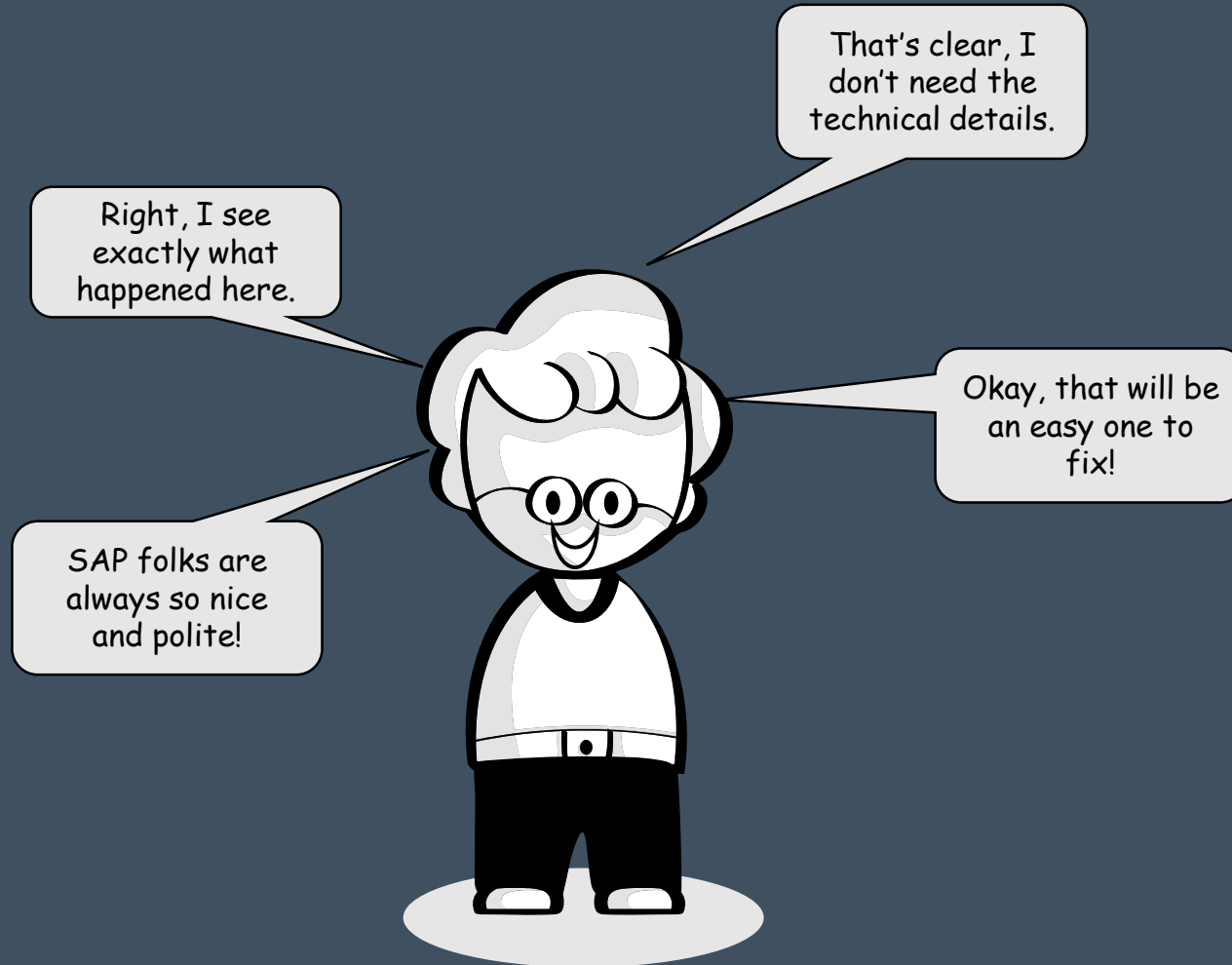
▼ Details

View Name	Status	Message
View 1	Failed	Sorry, we couldn't share the story using email

OK

When you speak in first person it appears like you are keen on striking a meaningful conversation like you would if you were speaking in person.

Checklist item #9: Communicate consistently across the application, in the SAP brand voice



USEFUL RESOURCES

- **UX writing**

- Software As A Service – why UX writing matters: <https://blog.prototypr.io/how-saas-disrupted-copywriting-9d516246ffc7>
- 5 Reasons consumer grade UX writing adds value to your business: <https://2bm.com/5-reasons-consumer-grade-ux-sap-adds-value-business/>
- UX writing: <http://babich.biz/ux-writing/>
- Error prevention: <https://ux.wdf.sap.corp/sap-analytics/error-prevention/>

- **Tone of communication**

- SAP brand voice: <https://www.sapbrandtools.com/tone-of-voice/>
- Message strip guidelines: <https://ux.wdf.sap.corp/sap-analytics-cloud/message-strip/>
- People centric approach to communication: https://ux.wdf.sap.corp/sap-analytics/wp-content/uploads/2020/01/ChecklistConversationalUIText_Online.pdf