

Automatisierte Ticketerstellung aus Error Logs



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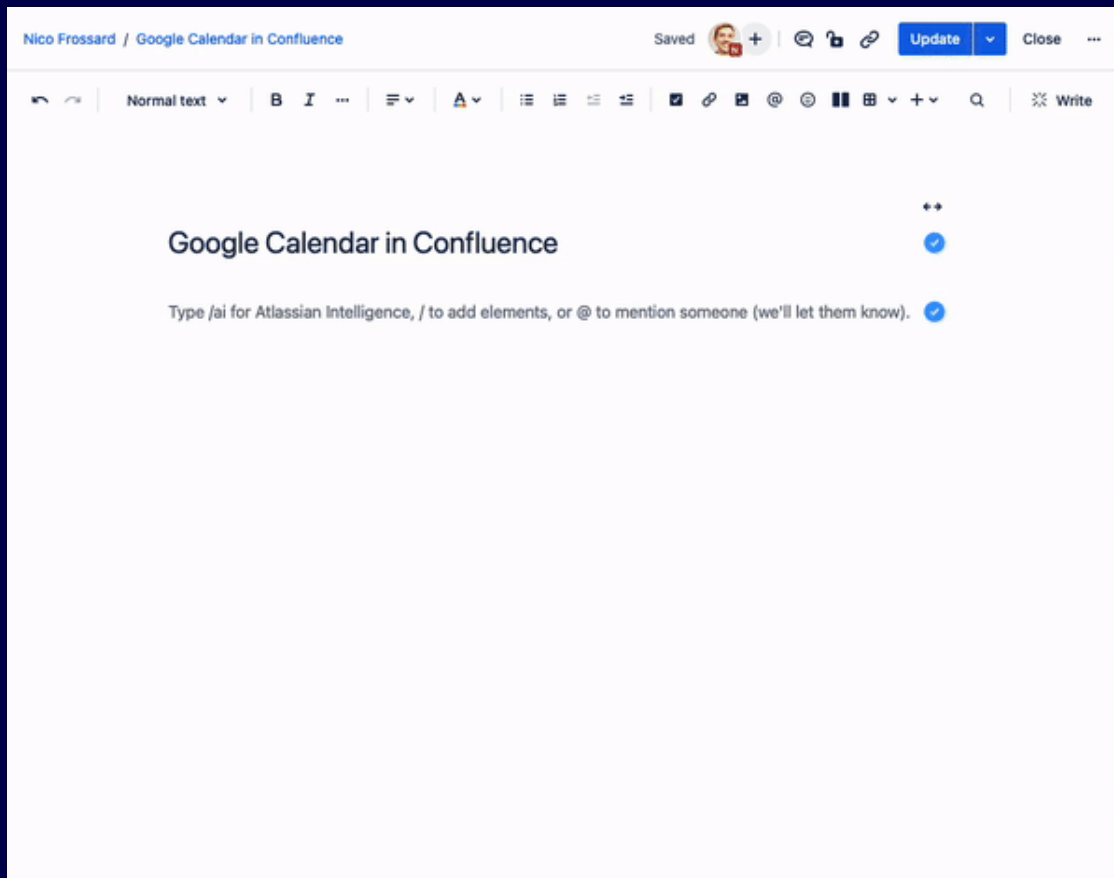


codefortynine GmbH






- Seit 2018
- 11 Mitarbeiter
- Sitz in Karlsruhe
- Jira & Confluence app vendor
 - Atlassian Platinum Partner
(63 weltweit)



















Google Calendar for Confluence




Nico Frossard / Google Calendar in Confluence

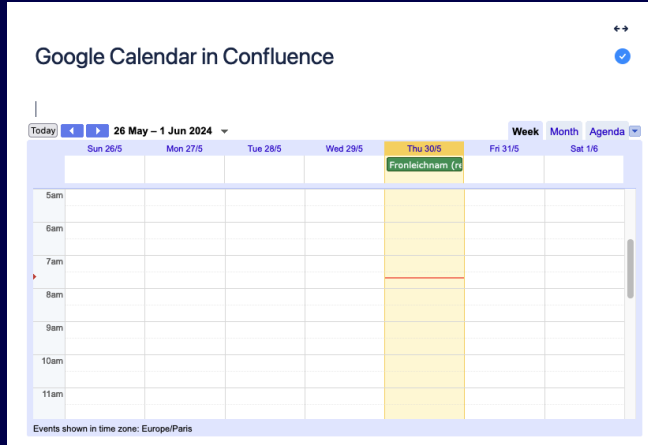
Saved  +    **Update**  Close ...

Normal text  **B** *I* ...        @    +    Write

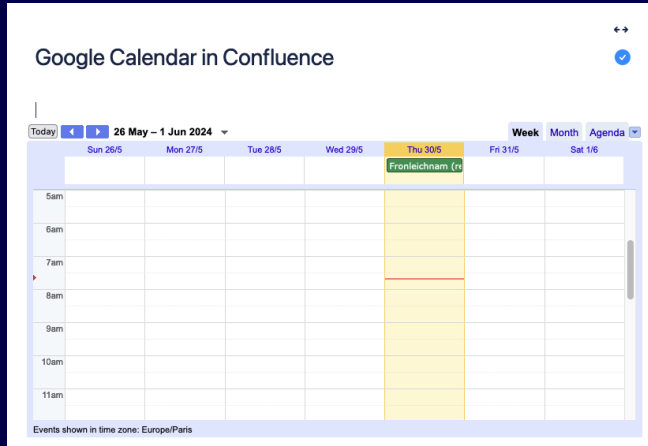
Google Calendar in Confluence  

Type /ai for Atlassian Intelligence, / to add elements, or @ to mention someone (we'll let them know). 

Google Calendar Errors



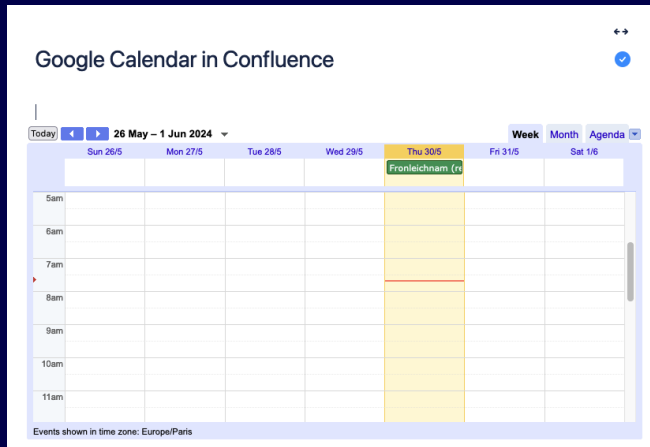
Google Calendar Errors



ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]

HTTP 503 Service Unavailable [...]

Google Calendar Errors

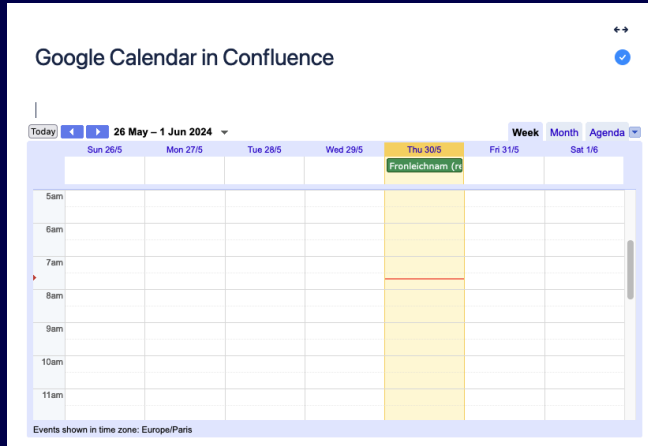


ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]

com.fasterxml.jackson.databind.**JsonMappingException**

Error when deserializing: missing field 'user'

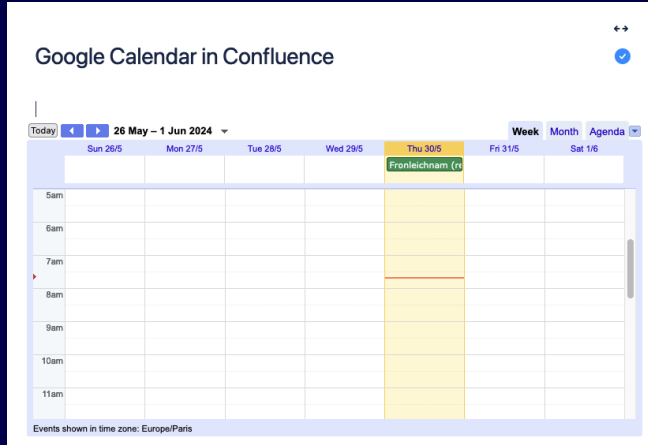
Google Calendar Errors



ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]

java.lang.NullPointerException: Cannot invoke "myMethod" because "myObject" is null

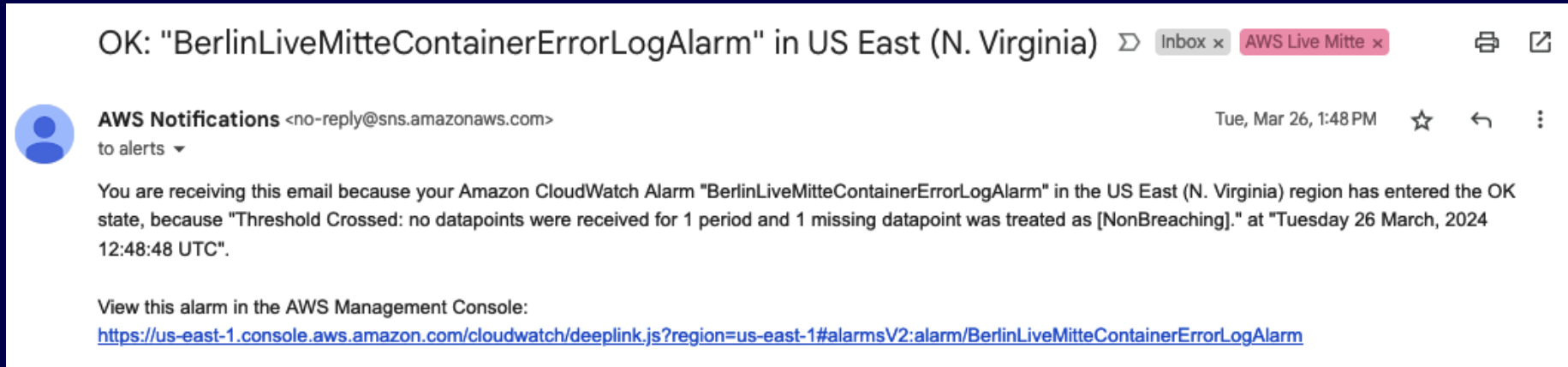
Google Calendar Errors



ERROR java.lang.NullPointerException



AWS Error E-Mail



- Wir schauen alle ERRORS an (~ 40 pro Woche)
 - Auch 3rd party library errors
 - Lieber zu viel, als zu wenig

ERRORs in Spreadsheet dokumentieren

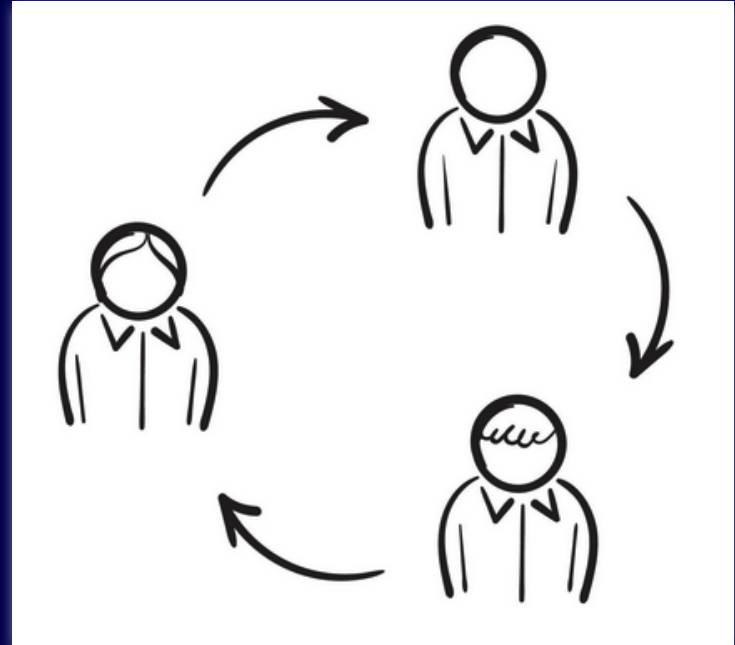
9	https://eu-central-1.con	2023-08-08 14:00:23	Field Assignee is required., Assignee should be modified during this transition	Unknown	Rainer
10	https://us-east-1.conso	2023-08-08 15:52:47	INVALID_INPUT	Fixed	Nico
11	https://us-east-1.conso	2023-08-09 06:19:11	<pre>{\"errorMessages\": [\"Evaluation failed: \\\"issue.project.key\\\" - Unrecognized property of `issue.project`: \\\"key\\\" ('key'). Type null does not have any properties\"], \"errors\": {}}</pre>	Won't fix	Manuel

- Verschiedene Resolutions

FIXED**WON'T FIX****NEW TICKET****TICKET EXISTS****UNKNOWN**

Alert Duty Rotation

- Wöchentliche Rotation
- Kommt mit anderen Aufgaben
 - Support
 - Code Review zuweisen
 - Build deployen



ERRORs in Spreadsheet dokumentieren

9	https://eu-central-1.con	2023-08-08 14:00:23	Field Assignee is required., Assignee should be modified during this transition	Unknown	Rainer
10	https://us-east-1.conso	2023-08-08 15:52:47	INVALID_INPUT	Fixed	Nico
11	https://us-east-1.conso	2023-08-09 06:19:11	<pre>{\n"errorMessagees\\":[\n"Evaluation failed: \\\\"issue.project.key\\\\" - Unrecognized property of `issue.project`: \\\\"key\\\\" ('key') . Type null does not have any properties\\\"],\n"errors\\":{}}</pre>	Won't fix	Manuel

- 1 ERROR = 1 Task
- 1 ERROR hat einen “Workflow”: TODO -> IN PROGRESS -> RESOLUTION
- 1 ERROR hat “Felder”: Titel, Beschreibung, Assignee, ...
- Man will nach ERRORs einfach suchen können

ERRORs als Jira Ticket dokumentieren

The screenshot shows a Jira ticket interface. The ticket title is "Google API Internal Server Error". The description contains three lines of error logs: "1 ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]", "2 HTTP 500 Request: Internal Server Error [...]", and "3". There is one attachment, a video file named "GoogleCal.mov" uploaded on 30 May 2024 at 08:18 am. The ticket has a status of "FIXED" and is assigned to Nicolas Frossard. The labels are "api" and "error". The development status is "NOT INTEGRATED". The reporter is also Nicolas Frossard. The activity section shows a comment from Nicolas Frossard, 2 minutes ago, stating that the error no longer occurs and the ticket is being closed. The ticket was created 3 minutes ago, updated 1 minute ago, and resolved 2 minutes ago.

Projects / Nico project / Add epic / NP-5

Google API Internal Server Error

Attach Add a child issue Link issue

Description

```
1 ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]
2 HTTP 500 Request: Internal Server Error [...]
3
```

Attachments 1

GoogleCal.mov
30 May 2024, 08:18 am

Web links

clones <https://codefortynine.atlassian.net/browse/ALERT-1> Updated on 21 Aug 2023 **FIXED**

Activity

Show: All Comments History Newest first

Add a comment...

Pro tip: press **M** to comment

Nicolas Frossard 2 minutes ago Edited
Seit [meinem Commit](#) letzte Woche am Donnerstag ist die ERROR nicht mehr passiert, ich mache das Ticket hier zu.

Edit · Delete

FIXED Done Actions

Details

Assignee Nicolas Frossard

Labels [api](#) [error](#)

Development **NOT INTEGRATED**

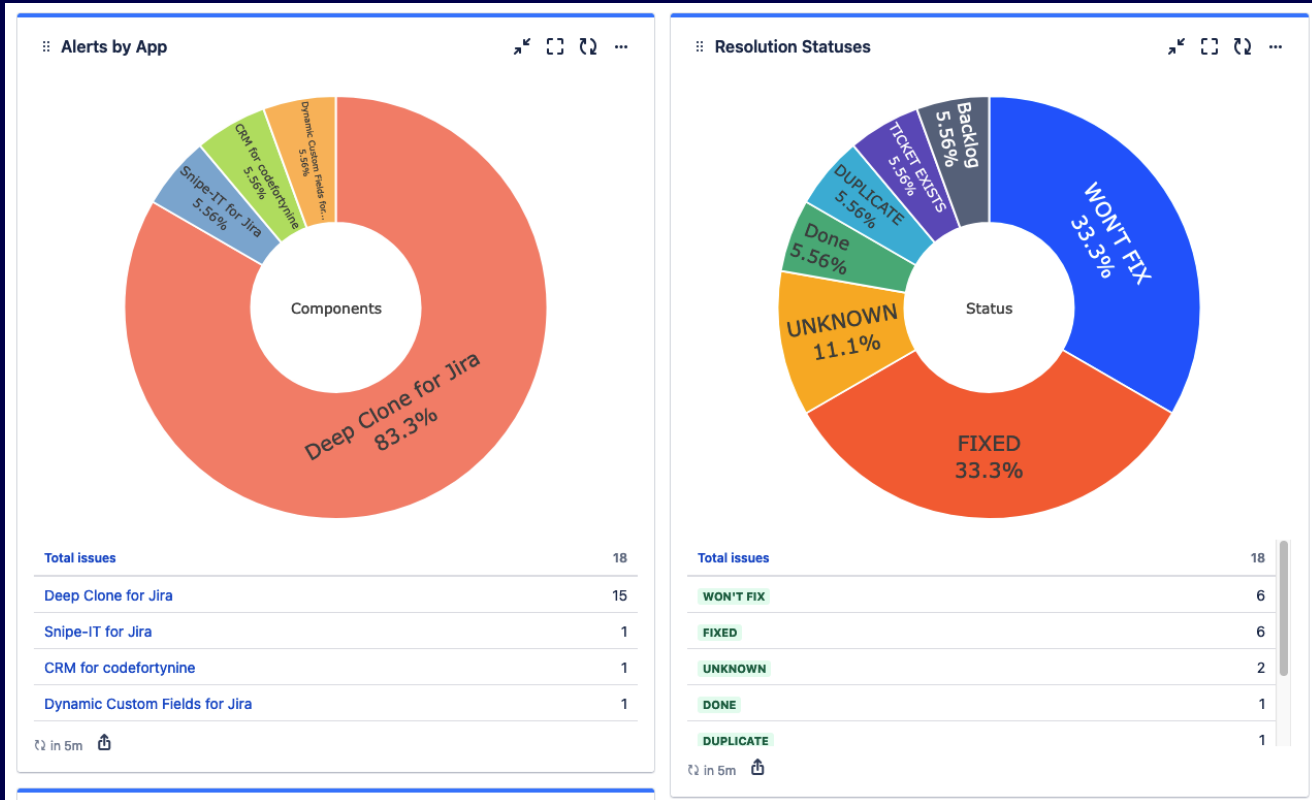
Branch
Commit
Pull request
[Integrate source code](#)

Reporter Nicolas Frossard

Created 3 minutes ago
Updated 1 minute ago
Resolved 2 minutes ago

Configure

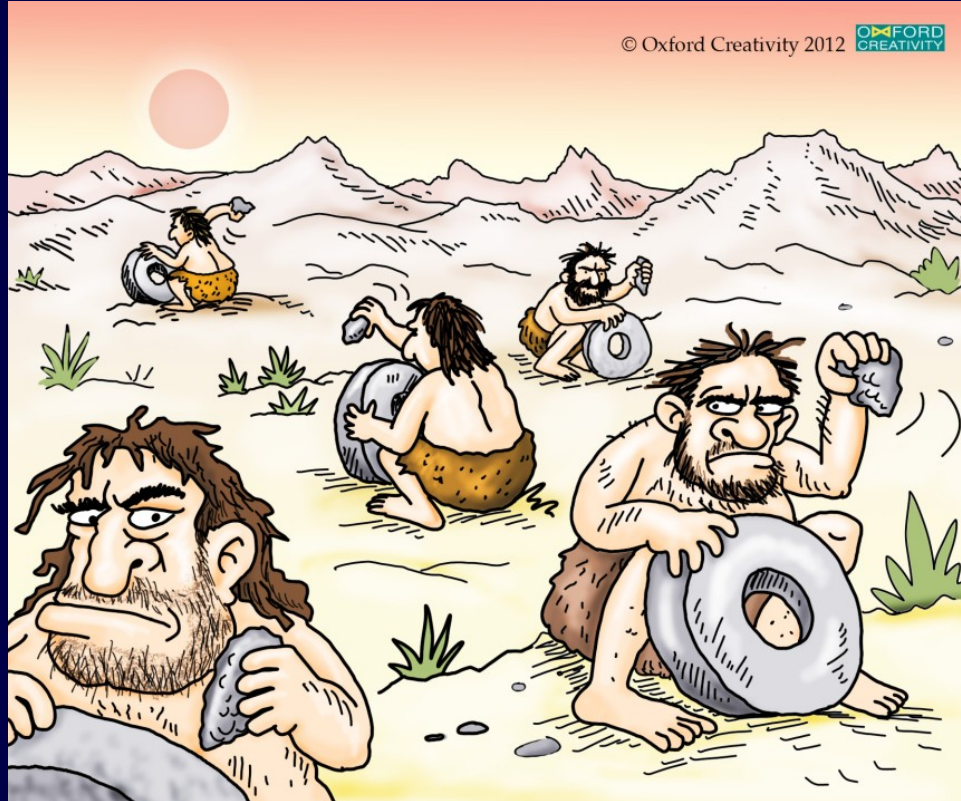
Alert Dashboard



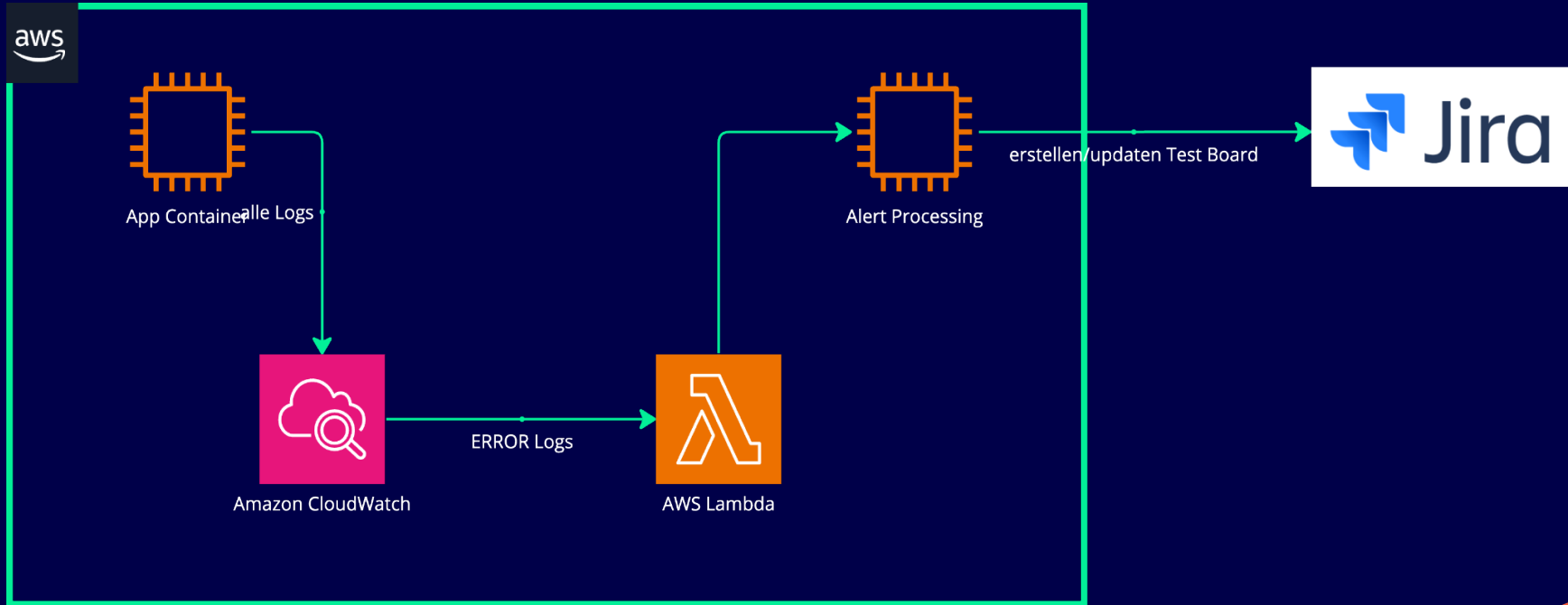
Almost there!

- Jira Tickets manuell erstellen ist **aufwändig**
- Human **error**
- **Inkonsistent**
 - Jeder hat seine Art, Ticket zu schreiben
- Man kann **nicht schnell wissen**, worum der ERROR geht

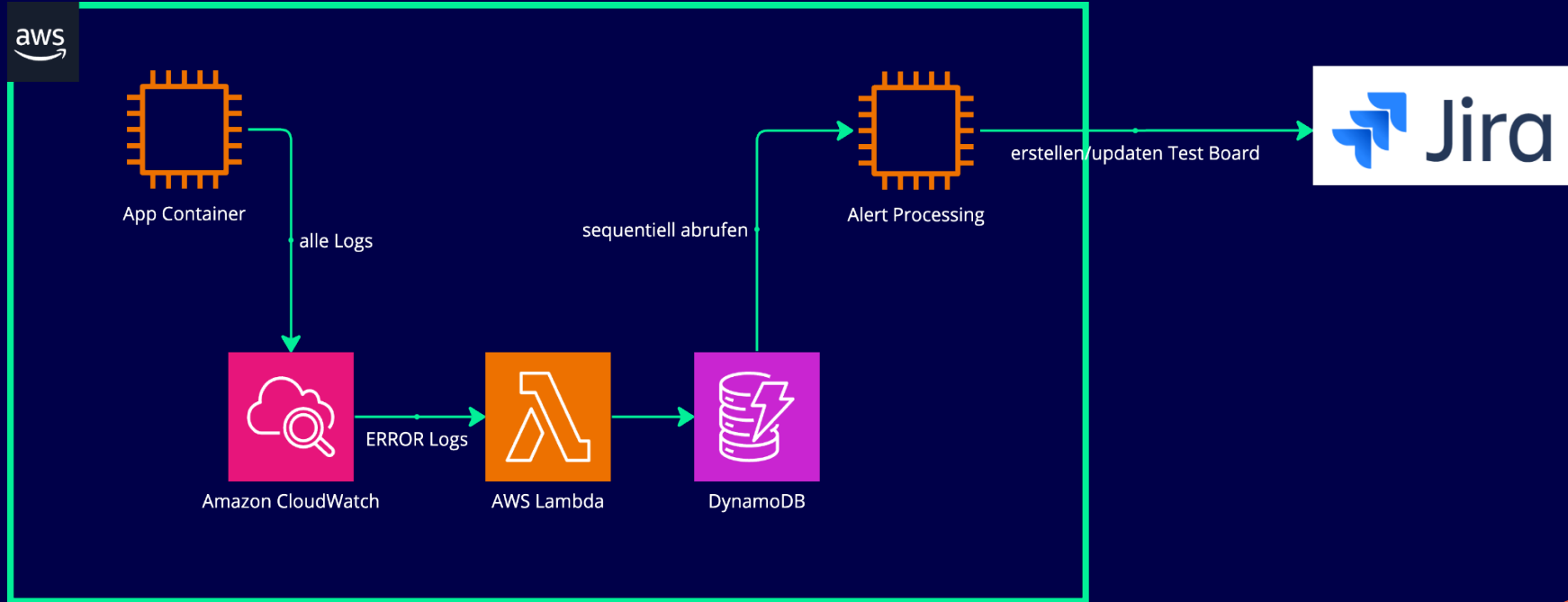
Der Weg zur Automatisierung



Anbindung der Logs zu Jira



Anbindung der Logs zu Jira



Analyse - Fehlermeldung extrahieren

```
ERROR 231116 09:04:00.787 [CLIENT=e8453538, CORR=552643ba]
io.dropwizard.jersey.errors.LoggingExceptionMapper HTTP 503 Service Unavailable: https://www.googleapis.com/
calendar/v3/87gweaiubkbWV9021
jakarta.ws.rs.ServiceUnavailableException: HTTP 503 Service Unavailable\n at ...
...
```

```
ERROR 231119 00:19:41.041 [CLIENT=e8453538, CORR=552643ba] c.w.FrontendErrorResource frontend error:
{"promiseRejection":{"name":"SyntaxError","message":"HTTP 503 Service Unavailable:https://www.googleapis.com/
calendar/v3/87gweaiubkbWV9021","stack":"Di@https://cdn-berlin.us.connect.codefortynine.com/calendar/static/
main.js","userAgent":"Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:109.0) Gecko/20100101 Firefox/
119.0","clientId":"3f394432-34df-3c92-
a638-506c1eea661e","pageLoadedDate":"2023-11-17T14:36:45.085Z","errorContext":{"lastSuccessfulRequest":
{"requestOptions":{"url":"/calendar/rest/calendar","type":"GET","cache":false}}}}}
```

Analyse - Format anpassen

```
{  
  "level" : "ERROR",  
  "mdc" : {  
    "CLIENT" : "e8453538",  
    "CORR" : "3542cac4"  
  },  
  "logger" : "io.dropwizard.jersey.errors.LoggingExceptionHandler",  
  "message" : "Error handling a request: 308ba79445682f6e",  
  "timestamp" : "2024-04-18T08:21:52.436Z",  
  "stacktraceMessage" : "HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021",  
  "stacktrace" : "jakarta.ws.rs.ServiceUnavailableException: HTTP 503 Service Unavailable\n at ..."  
}
```

Analyse - Format anpassen :/

```
{  
  "level": "ERROR",  
  "mdc": {  
    "CLIENT": "e8453538",  
    "CORR": "084cfc0b"  
  },  
  "logger": "com.codefortynine.atlassian.cloud.common.web.FrontendErrorResource",  
  "message": "{\"name\":\"SyntaxError\",\"message\":\"HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021\",\"stack\":\"Di@https://cdn-berlin.us.connect.codefortynine.com/calendar/static/main.js\",\"userAgent\":\"Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:109.0) Gecko/20100101 Firefox/119.0\",\"clientId\":\"3f394432-34df-3c92-a638-506c1eea661e\",\"pageLoadedDate\":\"2023-11-17T14:36:45.085Z\",\"errorContext\":{\"lastSuccessfulRequest\":{\"requestOptions\":{\"url\":\"/calendar/rest/calendar\",\"type\":\"GET\",\"cache\":false}}}}\",  
  "timestamp": "2024-04-10T17:43:06.437Z"  
}
```

Analyse - Meta Daten extrahieren

```
{
  "level": "ERROR",
  "mdc": {
    "CLIENT": "e8453538",
    "CORR": "084cfc0b"
  },
  "logger": "com.codefortynine.atlassian.cloud.common.web.FrontendErrorResource",
  "message": "{\"name\":\"SyntaxError\",\"message\":\"HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3/v87gweaiubkbWV9021\",\"stack\":\"Di@https://cdn-berlin.us.connect.codefortynine.com/calendar/static/main.js\",\"userAgent\":\"Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:109.0) Gecko/20100101 Firefox/119.0\",\"clientId\":\"3f394432-34df-3c92-a638-506c1eea661e\",\"pageLoadedDate\":\"2023-11-17T14:36:45.085Z\",\"errorContext\":{\"lastSuccessfulRequest\":{\"requestOptions\":{\"url\":\"/calendar/rest/calendar\",\"type\":\"GET\",\"cache\":false}}}}\",
  "timestamp": "2024-04-10T17:43:06.437Z"
}
```

Zwischenstand

Projects / Alerts EU / Add parent / ALERTEU-158


HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021

Attach Create subtask Link issue Create ...

Description
Admin Dashboard
[Link to Details](#)


```
1 {
2   "level" : "ERROR",
3   "mdc" : {
4     "CLIENT" : "e8453538",
5     "CORR" : "3542cac4"
6   },
7   "logger" : "io.dropwizard.jersey.errors.LoggingExceptionHandler",
8   "message" : "Error handling a request: 308ba79445682f6e",
9   "timestamp" : "2024-04-18T08:21:52.436Z",
10  "stacktraceMessage" : "HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021",
11  "stacktrace" : "jakarta.ws.rs.ServiceUnavailableException: HTTP 503 Service Unavailable\n at ..."
12 }
```

Activity



Pro tip: press **M** to comment

Details

Reporter
 Rainer Steinegger

Development
[Create branch](#)
[Create commit](#)

Labels
None

First occurrence (CEST)
Apr 18, 2024, 8:21 AM

Correlation ID
3542cac4

Job ID
None

Client ID
e8453538

Alert Counter
3

Components
Google Calendar for Confl...

Jetzt wird es erst interessant :)

- Duplikate vermeiden
 - Folgefehler
 - Outages einer 3rd Party Integration
 - ähnliche Fehler
- eine große Outage sollte die Jira Instanz nicht lahm legen

Merge Strategien - Levenshtein Distanz

Wie viele einzelne Schritte sind nötig um eine Zeichenkette in eine andere zu überführen?

Error when running action create: Optional[**customfield_12088**: Type of work is required.]

Error when running action create: Optional[**customfield_11048**: Type of work is required.]

Merge Strategien - Masking

Welche Teile einer Zeichenkette interessieren uns beim Vergleichen überhaupt?

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021> while retrieving calendar details for client [1173858a-2ced-419d-9fda-343db4e0c41f](#)

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/98hg32bibsdrvjkbkj> while retrieving calendar details for client [a37e000d-114b-4d96-b029-5a622b3b4348](#)

Merge Strategien - Masking

Welche Teile einer Zeichenkette interessieren uns beim Vergleichen überhaupt?

HTTP 503 Service Unavailable: <https://www.static.com> while retrieving calendar details for client `aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaa`

HTTP 503 Service Unavailable: <https://www.static.com> while retrieving calendar details for client `aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaa`

Merge Strategien - über Meta Daten

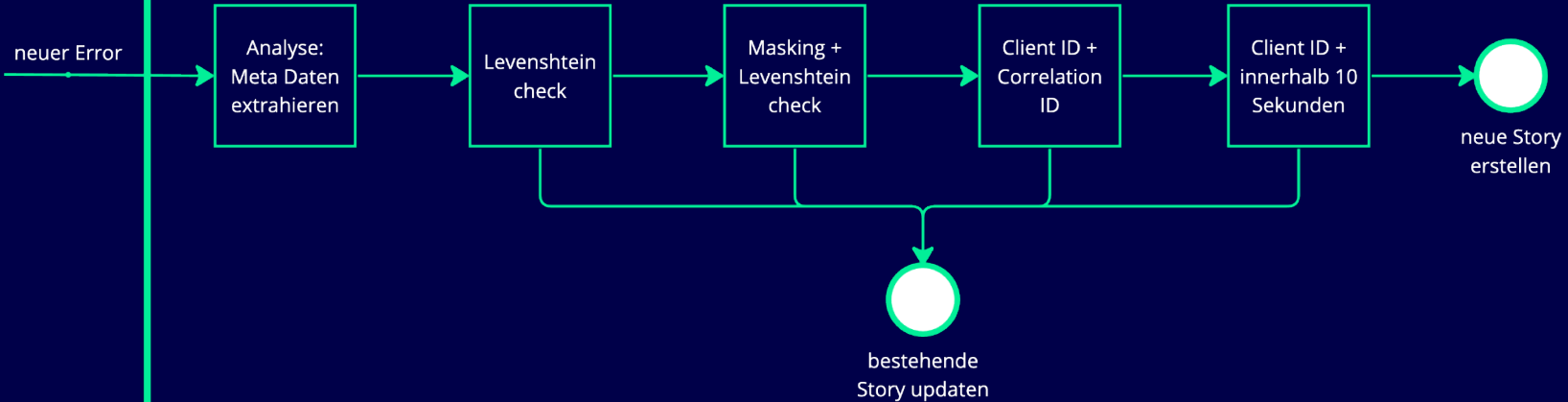
```
{
  "level" : "ERROR",
  "mdc" : {
    "CLIENT" : "e8453538",
    "CORR" : "3542cac4"
  },
  "logger" : "io.dropwizard.jersey.errors.LoggingExceptionMapper",
  "message" : "Error handling a request: 308ba79445682f6e",
  "timestamp" : "2024-04-18T08:21:52.436Z",
  "stacktraceMessage" : "HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3",
  "stacktrace" : "jakarta.ws.rs.ServiceUnavailableException: HTTP 503 Service Unavailable\n at ..."
}
```

Merge Strategien - Zeitliche Nähe

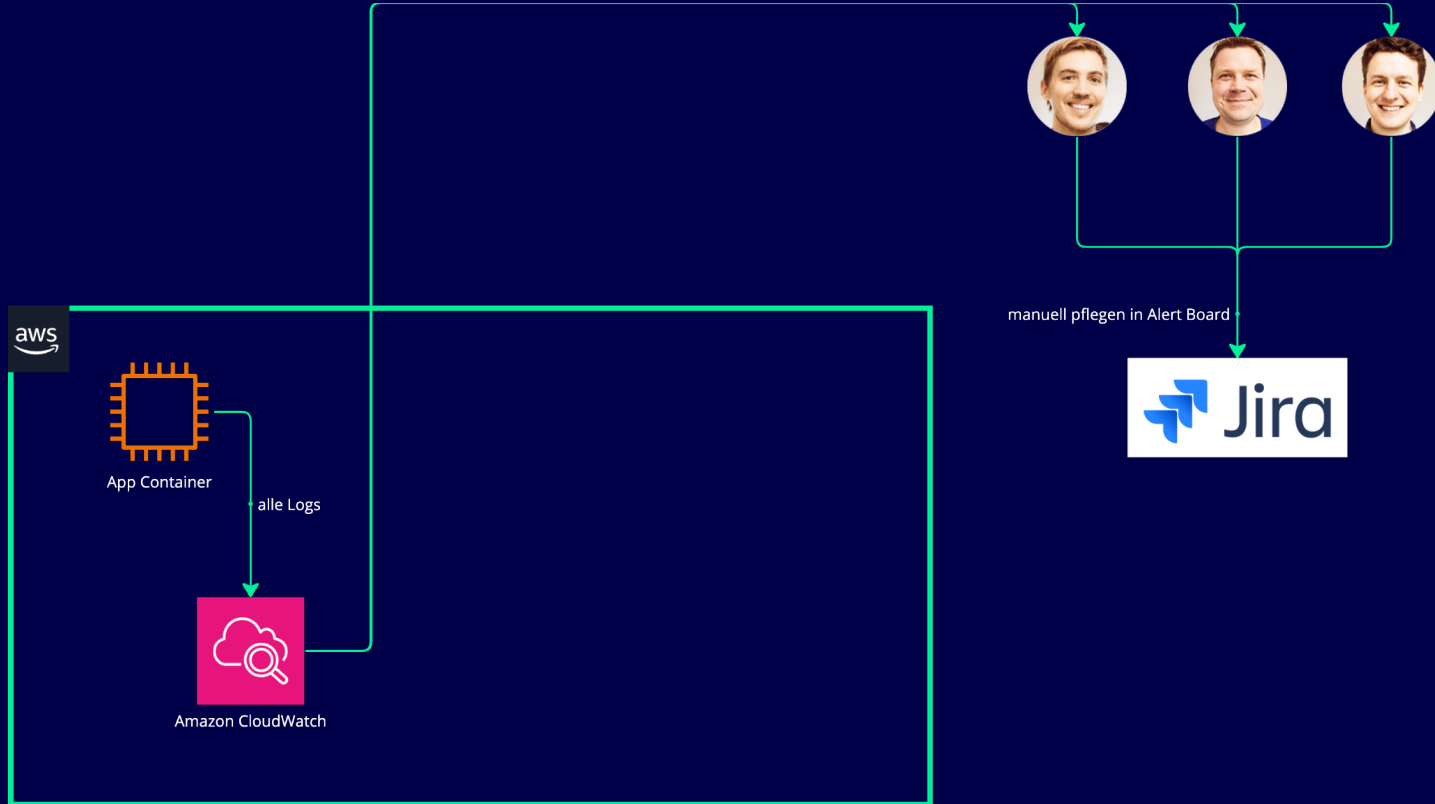
```
{  
  "level" : "ERROR",  
  "mdc" : {  
    "CLIENT": "e8453538",  
    "CORR" : "3542cac4"  
  },  
  "logger" : "io.dropwizard.jersey.errors.LoggingExceptionMapper",  
  "message" : "Error handling a request: 308ba79445682f6e",  
  "timestamp" : "2024-04-18T08:21:52.436Z",  
  "stacktraceMessage" : "HTTP 503 Service Unavailable: https://www.googleapis.com/calendar/v3",  
  "stacktrace" : "jakarta.ws.rs.ServiceUnavailableException: HTTP 503 Service Unavailable\n at ..."  
}
```

Merge Strategien zusammengefasst

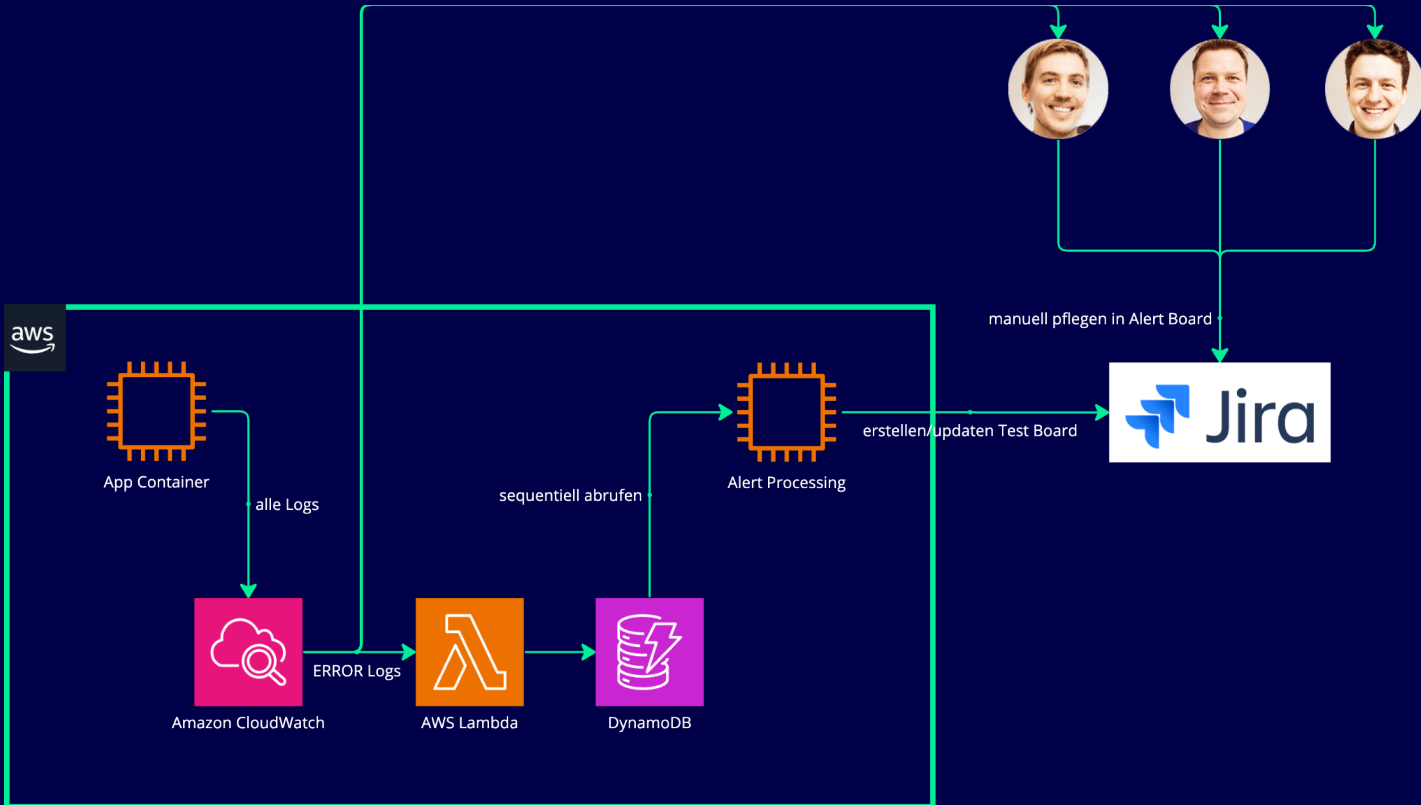
Error Log App



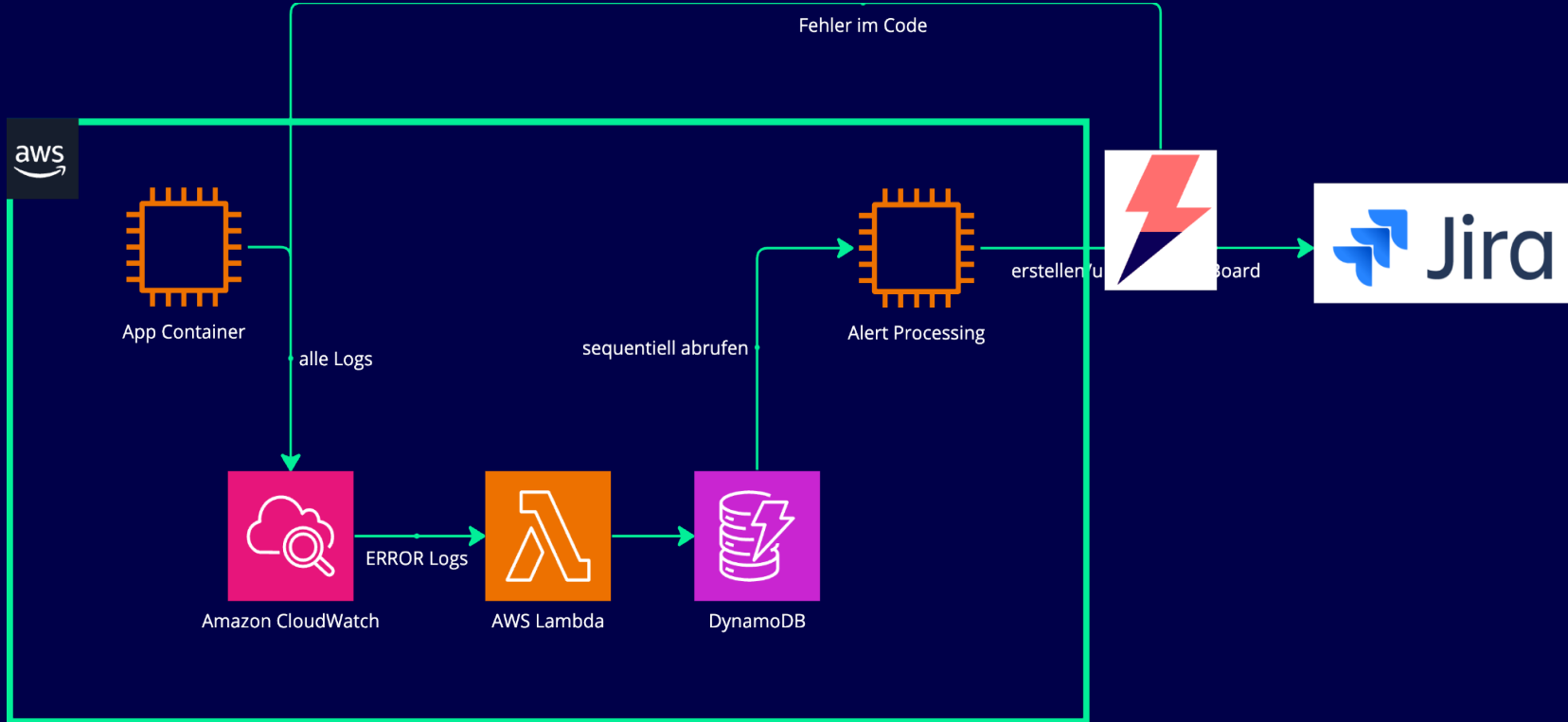
Einführungsphase



Einführungsphase



Learnings - Error Loops



Learnings - Größerer Ausfall



Zusammenfassung

- Nach ~6 Monaten sind wir ganz zufrieden
 - Wir sparen viel Zeit
 - Wir sind effizienter
- Automatisierung bringt neue challenges
 - z.B. Duplicates automatisch identifizieren
- Wir werden in der Zukunft weiterhin unsere Lösung verbessern



Why not AI?

Are these two errors the same error?

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021> while retrieving calendar details for client 1173858a-2ced-419d-9fda-343db4e0c41f

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/98hg32bibsdvjkbkj> while retrieving calendar details for client a37e000d-114b-4d96-b029-5a622b3b4348

Please only respond by 'yes' or 'no'.



Yes.

Are these two errors the same error?

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/87gweaiubkbWV9021> while retrieving calendar details for client 1173858a-2ced-419d-9fda-343db4e0c41f

HTTP 503 Service Unavailable: <https://www.googleapis.com/calendar/v3/98hg32bibsdvjkbkj> while retrieving calendar details for client a37e000d-114b-4d96-b029-5a622b3b4348

Please only respond by 'yes' or 'no'.



No.