Team 7

**DXC HackIT
with Autism together**

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The goal

Use data from a worn biometric device to enrich the lives of people with autism and enable carers to respond to and pre-empt meltdowns.

Meet the User.

700,000 people on the autism spectrum in the UK

Including the families, autism is a part of daily life for 2.8 million people

Our solution

1. **Scales up**
   Using AWS tools including:
   - Kinesis
   - Kinesis Data Analytics
   - Kinesis FireHose
   - Lambda
   - Elastic Cloud Search

2. **Keeps your data safe**
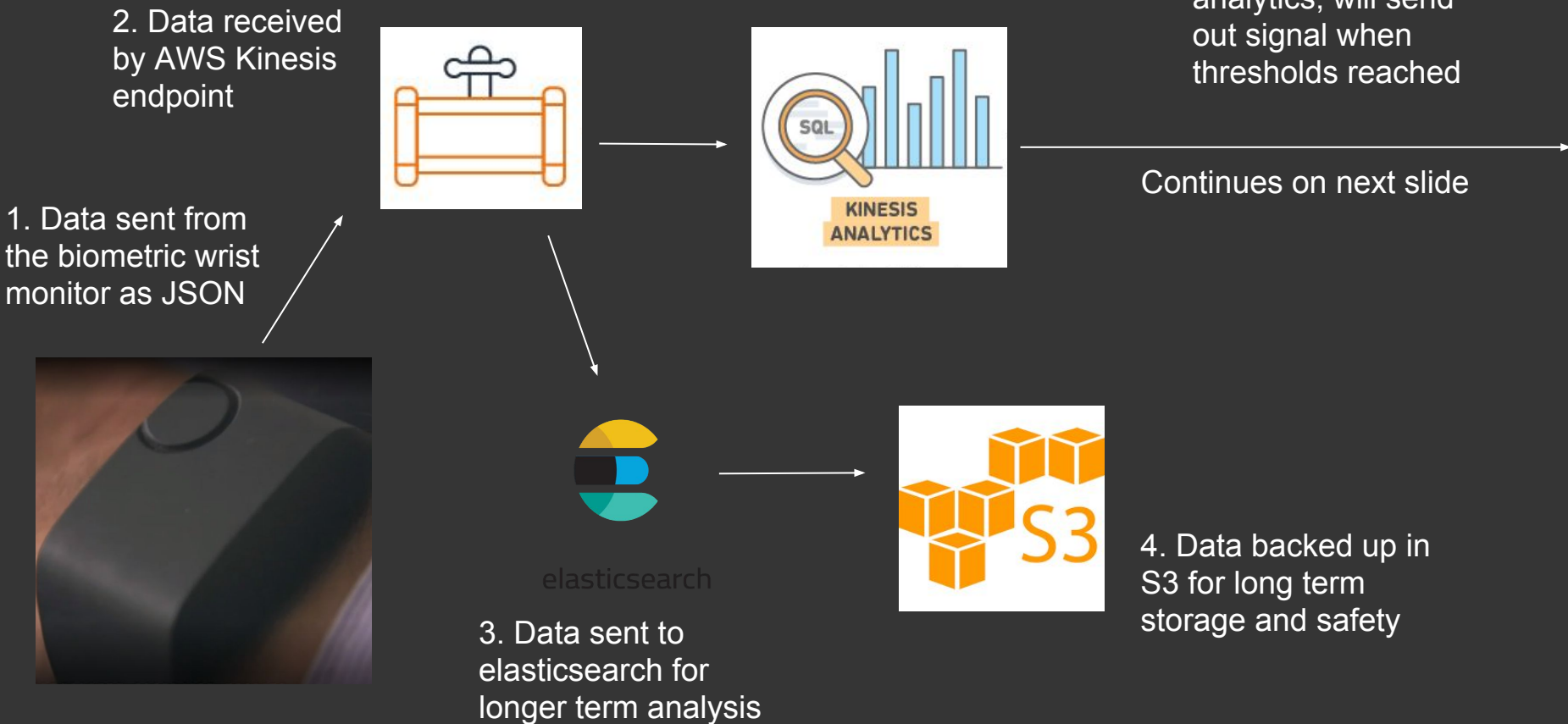   All collected data is stored and backed up safely in S3

3. **Works in real time**
   Data is analysed as a real-time stream
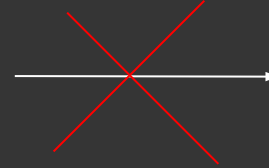
Does it work?

Not yet.

The solution

2. Data received by AWS Kinesis endpoint

3. Data analysed in real time by kinesis analytics, will send out signal when thresholds reached

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1. Data sent from the biometric wrist monitor as JSON

elasticsearch

4. Data backed up in S3 for long term storage and safety

3. Data sent to elasticsearch for longer term analysis

Continued

4. Stream fed back in to kinesis to allow distribution to other AWS services

5. Lambda triggered when thresholds are reached to send out notifications

6. Alexa receives notifications from lambda

Solutions to the Alexa push notification problem

1. **Use an Alexa skill to query data instead of push notifications**
   Requires setting up an endpoint that is persistent for Alexa to contact

2. **Use something other than Alexa**
   For example send a text message to the carers instead

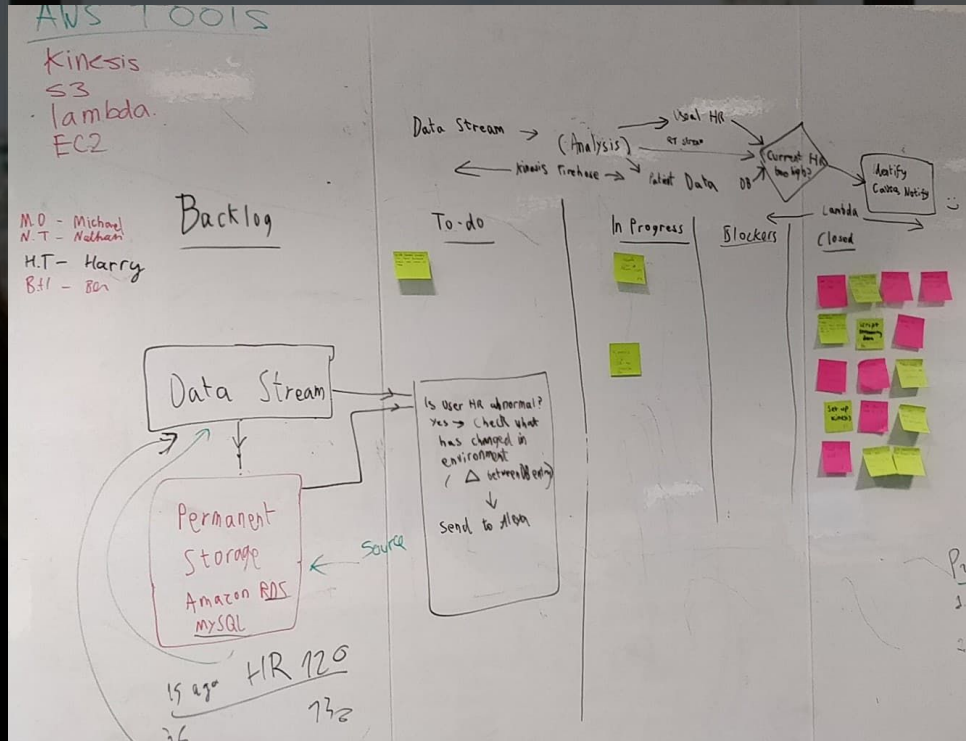3. **Apply to the developer preview for Alexa push notifications**
   Unfortunately not possible in the timescale for the hackathon - but this would be most preferable

Alexa demo

Threshold monitoring Pseudocode

https://github.com/ckinson/DTC-Hackathon-Team7/blob/master/Docs/Pseudocode%20for%20Threshold%20Alexa%20Triggers.md

Kanban

- Increase collaboration
- Helped keep track of issues and blockers
- Enabled everyone to see each others contributions
- Satisfaction of seeing items closed off

Any Questions?