

The top corners of the slide feature abstract geometric designs. These include thin blue lines, small blue dots, and concentric circles, all arranged in a way that suggests a network or a futuristic interface. The patterns are more dense in the top-left and top-right corners.

AURAL SUPPORT FOR VISUALLY IMPAIRED

An end-to-end cloud implementation

The bottom corners of the slide also feature abstract geometric designs, mirroring the top. These include thin blue lines, small blue dots, and concentric circles, arranged in a way that suggests a network or a futuristic interface. The patterns are more dense in the bottom-right corner.

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Aural Support

The audio support
provided for challenged

03

Project Idea

Vision and
Implementation of logic

02

Why ?

To overcome the
difficulties faced

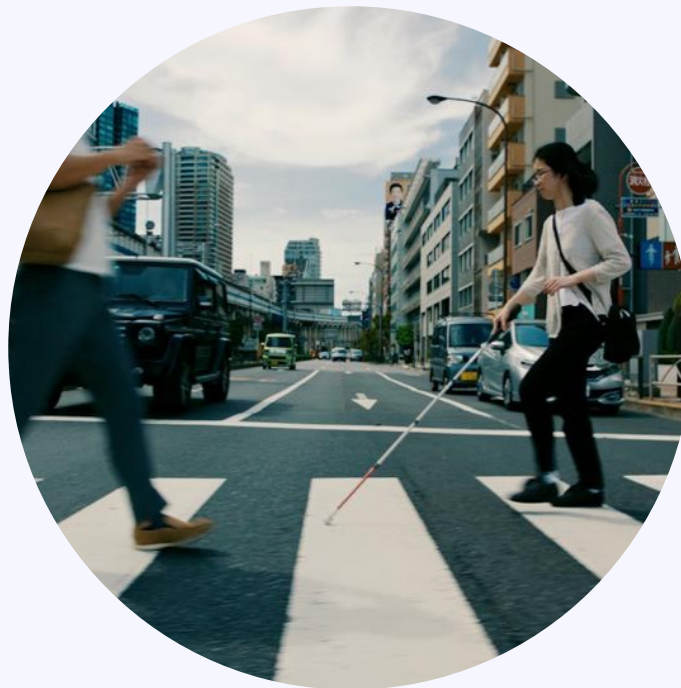
04

Other use cases

Further developments and
possible features

01. AURAL SUPPORT

To assist individuals by audio who are blind to read & on improving the competence of blind people by providing them with a reliable solution through cloud





02.

Why ?





86% of every 300

Visually impaired face accident every year



285 000 000

million people are visually impaired worldwide



100 % ACCURACY

Almost 100% accurate document reader



**“ Using the technologies
available in the right way is the
solution of all available
problems. ”**



Cloud - Next-gen solutions provider



Project Idea



01

Image

Capture image
through the
camera module

02

Cloud

Send the image
to cloud and
pass to detection

03

Detect

From the image
obtained
extract text

04

Raspberry pi

Retrieves text
and converts to
speech



RASPBERRY PI



IR - Sensor

Notifies the user when there is an obstacle



Camera module

Captures the document and sends to cloud



Bucket access

Send & receive data to / from cloud using boto3



Text to speech

Convert the text to speech using gTTs

pi@raspberrypi: ~

File Edit Tabs Help

```
ackages (from awscli) (0.4.4)
Requirement already satisfied: python-dateutil<3.0.0,>=2.1 in ~/.local/lib/python3.9/site-packages (from botocore==1.27.4->awscli) (2.8.2)
Requirement already satisfied: urllib3<1.27,>=1.25.4 in /usr/lib/python3/dist-packages (from botocore==1.27.4->awscli) (1.26.5)
Requirement already satisfied: jmespath<2.0.0,>=0.7.1 in ~/.local/lib/python3.9/site-packages (from botocore==1.27.4->awscli) (1.0.0)
Requirement already satisfied: six>=1.5 in /usr/lib/python3/dist-packages (from python-dateutil<3.0.0,>=2.1->botocore==1.27.4->awscli) (1.16.0)
Collecting pyasn1>=0.1.3
  Downloading https://www.piwheels.org/simple/pyasn1/pyasn1-0.4.8-py2.py3-none-any.whl (77 kB)
    |████████████████████████████████████████| 77 kB 68 kB/s
Installing collected packages: pyasn1, rsa, PyYAML, awscli
Successfully installed PyYAML-5.4.1 awscli-1.25.4 pyasn1-0.4.8 rsa-4.7.2
pi@raspberrypi:~ $ export PATH=/home/pi/.local/bin:$PATH
pi@raspberrypi:~ $ aws --version
aws-cli/1.25.4 Python/3.9.2 Linux/5.15.32-v7l+ botocore/1.27.4
pi@raspberrypi:~ $ aws configure
AWS Access Key ID [None]: AKIAV53VVEP42YYXGDGG
AWS Secret Access Key [None]: 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
Default region name [None]: us-east-1
Default output format [None]: json
pi@raspberrypi:~ $
```

CLOUD SERVICE - AWS



IAM

Creation of policies
for administrator
S3 bucket access



S3

Policies for API
requests ,
Public access



LAMBDA

Event triggering
Code
Deploy



CLOUDWATCH

Monitor and
Logging of data



TEXTTRACT

Convert image - text
And retrieve output



JSON OUTPUT

Extract the output
and put the data in
S3 bucket

Cost trend by top five services [Info](#)

Viewing data over a period of 3 months.

Line

Last 3 months by service



Total cost in USD

0

Mar 2022

Apr 2022

May 2022

— Key Management Service — Data Transfer — IoT — CloudWatch
— Simple Storage Service

Cost by service

May 2022 total spent compared to previous 3 month average.

Service ▾	Average ▾	May t... ▾
— Key Management Service	USD 0.00	USD 0.00
— Data Transfer	USD 0.00	USD 0.00
— IoT	USD 0.00	USD 0.00
— CloudWatch	USD 0.00	USD 0.00
— Simple Storage Service	USD 0.00	USD 0.00

[View your bill](#)

Other use cases & Future



Any document

OMR sheet / any image
Object detection &
identification



Other services

AWS Rekognition
SNS
AWS - IoT



Tight Integration

Adding more features
and integrating with
cloud

Benefits of cloud

Since AWS cloud is one of the most reliable cloud service and is available 24*7 , the data logged can be accessed anywhere

