

BLAID

A SHOPPING ENVIRONMENT
FOR BLIND PERSON

The problem

- Blind person can not shop by own, they need assistant.
- All blind person do not have a personal assistant to help.
- All assistant are not trustworthy.





Best possible solutions

- Shopping mall provide assistance to blind person
- Using a shopping list
- Using cutting edge technology

Problem with Assistant :

- Costly
- May not be trustworthy
- Not always possible to hire an assistant

Problem with Shopping List :

- Deprived of shopping experience
- Not possible in super malls
- Waiting time is large

Introducing...

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blind

aid

system

Disadvantages :

- It does not recognise object rather it recognise rack.
- Lack of proper navigation (it can be improve further)

Advantages :

- Makes blind person independent
- Affordable
- One - time investment
- Easy to use
- Trustworthy

How it works

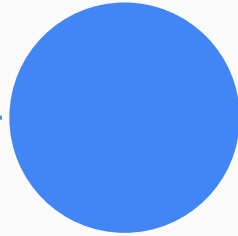
Step 1

Make entry of products into database of android app (one time only)



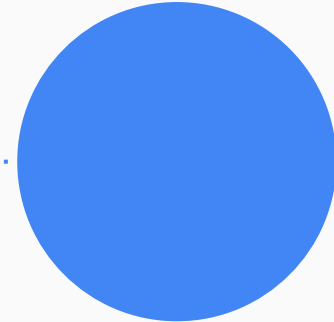
Step 2

Connect the device to customer's smartphone



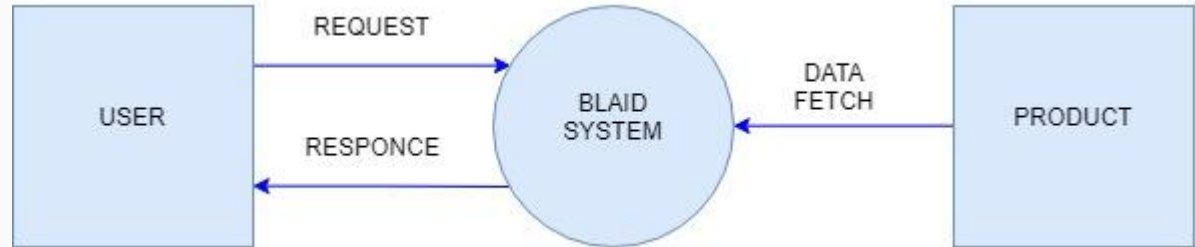
Step 3

Visit through product racks it automatically pronounce the product details



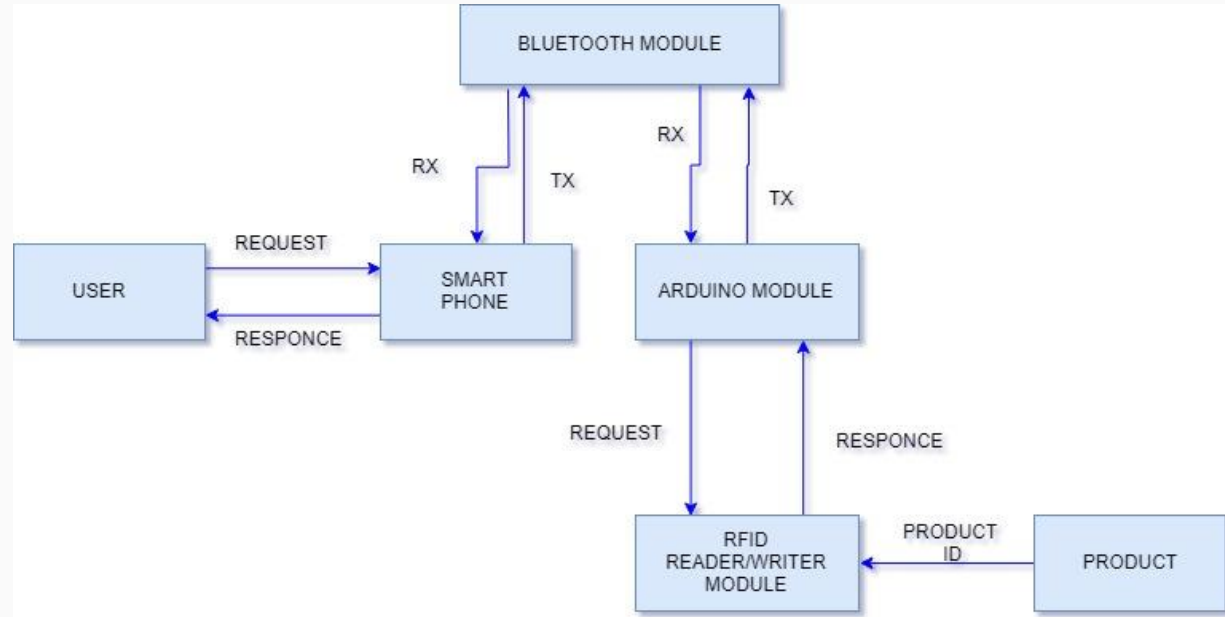
Data Flow Diagram

LEVEL 0 :



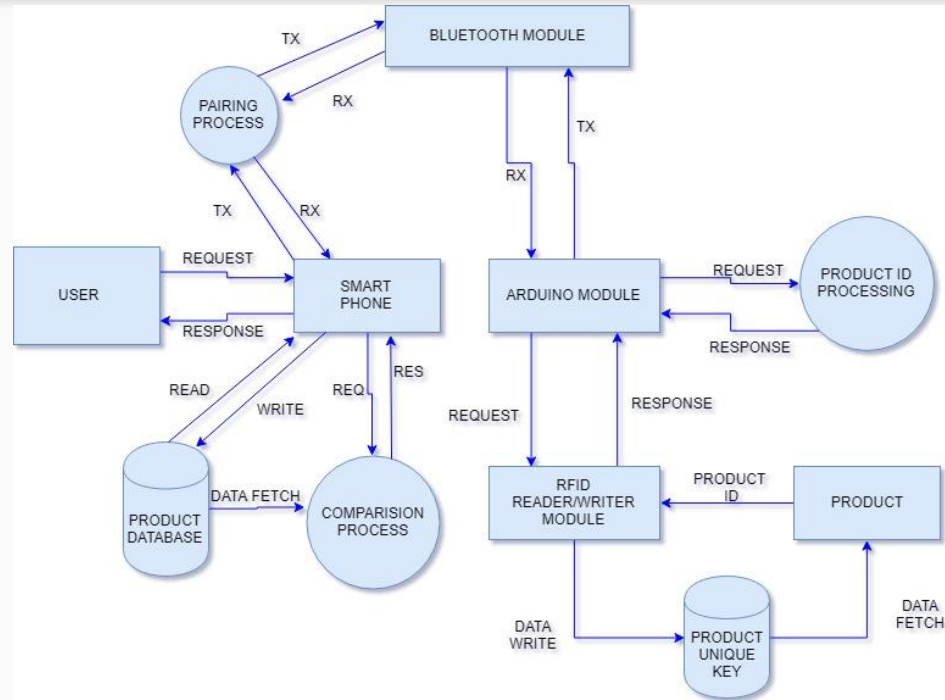
Data Flow Diagram

LEVEL 1 :



Data Flow Diagram

LEVEL 2 :



Technologies used :

- Arduino uno
- Bluetooth module
- RFID reader/writer module
- Android studio
- Arduino sketch
- SQLite

Implemented in C++, Java, XML

An illustration of a desk setup. In the top left, there is a white cup filled with dark brown coffee. To its right is a portion of a white calculator with a blue screen. Below these items is an open notebook with a dark cover and spiral binding. A yellow pencil with a black eraser is resting on the left page of the notebook. The background is a solid teal color.

Cost Comparison

- Assistant at shopping mall
(Rs. 8000+ per month)

An aerial view of the New York City skyline at dusk. The Empire State Building is prominent in the center, with its spire illuminated. The city lights are visible, and the sky is a mix of dark blue and orange from the setting sun. The text is overlaid on the image.

Cost for this product :

Under ₹ 1,000
(one time investment)

An aerial photograph of the New York City skyline at dusk. The sky is a mix of dark blue and orange, with scattered clouds. The city is densely packed with skyscrapers, many of which are illuminated with their lights. The Empire State Building is prominent in the center, with its top lit in red and green. The Hudson River is visible in the background, with the New York-New York Hotel & Casino's replica of the Empire State Building on the right side of the image.

Technical specification :

- Android phone
(android 4.4 +)

END