MED EXPIRE

Cisco Ideathon- 2022 Round-2

Submitted by - Rishi Kiran Yadla

Problem Statement

In this present fast moving world, keeping a track of expiry dates when dealing with the various amount of tasks is a very challenging even though the task is very small and simple. The expiry dates of the medicines would vary from medicine to medicine, so in order to keep the track of all this information we need to have a digital assistance to tackle this problem.

Pain Points

- Having to manual check the expiry date on the medicine strip.
- Keeping the track of the expiry dates for the medicines which are purchased.
- For smaller tablet strips it is hard to read the expiry date due to its print size.

Proposed Idea

- In order to keep a track of the expiry date of the medicines. We can develop an app by using the pre-existing Technologies.

- This particular problem can be solved in 2 different ways according to the available resources with us.

- Primarily whenever we purchase any medical franchise they would generate a bill and send to us via SMS or email.

- So for the app that we develop we will make sure to scan through this messages and transfer the relevant info and store it in customers google spreadsheets.

- If in any case the customer couldn't receive the images he can use the scanner facility which we will embed in our app and use that to update the information.

- Once the data is stored in the Spreadsheets we can connect it to our google calendar and get notification regarding the expiry data via email or app notifications.

- We can also get the countdown timer in the app to show the remaining number of days.

Sample Medical Strip

QR CODE

Expiry Date & other details.

Process Flow at Medical Franchise

1) Initially whenever the customer purchases the item from an online store or a offline stores from medical franchise such as Medplus, Apollo etc.
2) They would scan the product and send the details to the customer mobile number or to customer email.
3) These details would consist of the medicine name, batch no, expiry date and also the quantity of the medicine purchased by the customer.
4) With the help of SMS APIs we will process the details and store all the relevant information sent to the customer in the google sheets of the customers google account.

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5) From there all the data that is stored in the google sheets will be processed with the help of app script to update the events in the calendar.

6) Once the event is created a recurring event with a frequency of 3 or 6 months interval is kept to remind the customer about the expiry date.

7) Then we can set up notification to the either to the customer mail or app notifications to be triggered for that particular day.

8) We can also set a count downtime in the google sheets which can be displayed in the app.

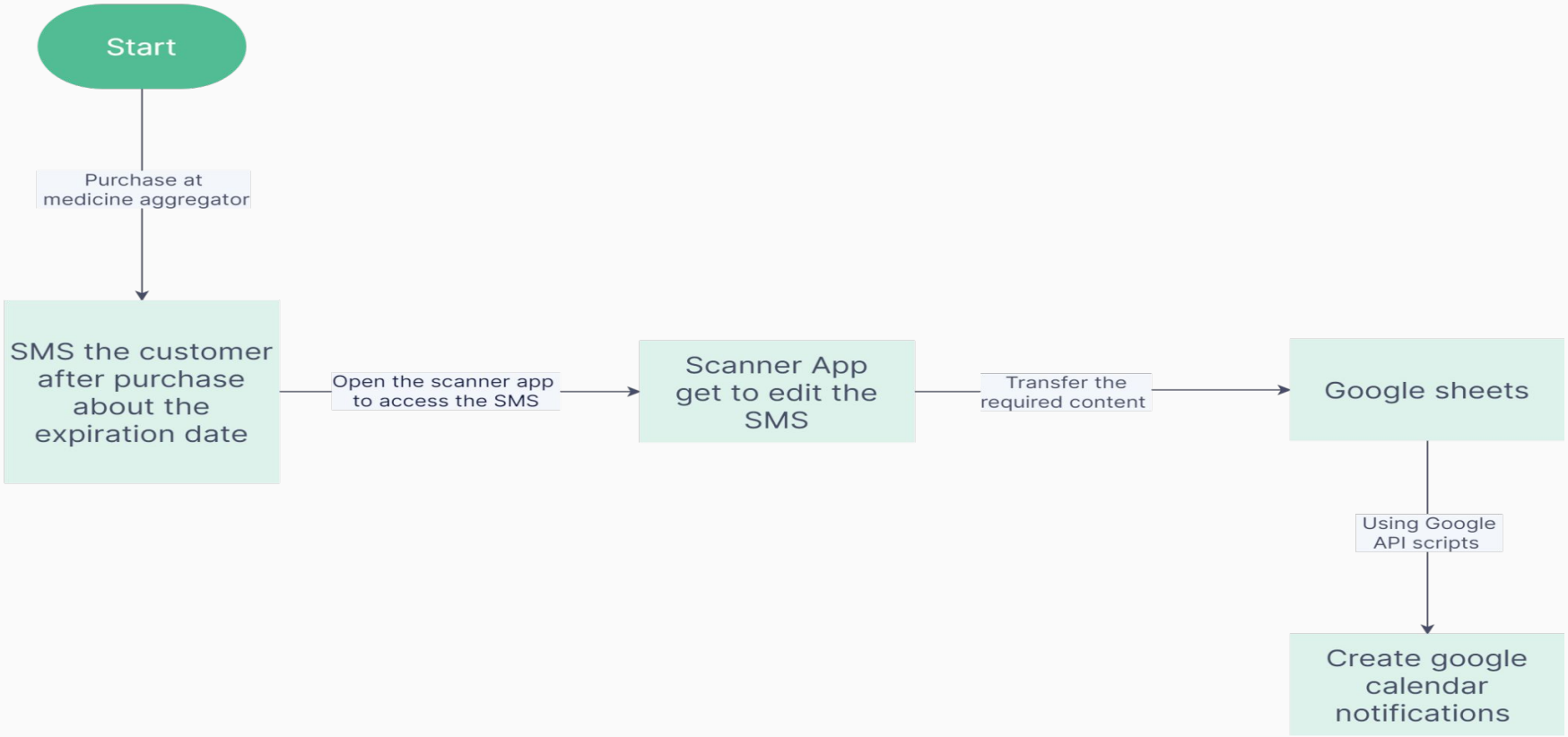
Technology Used

- Google Apps Script - This apps script is a very useful tool developed by google for developers to create various automatic tasks and to connect various google services with ease.

- This Apps Script is also used to extract the information such as medicine name and expiry date from the messages and store that data in google sheets.

- Then with the help of Apps Script again we would again create events in the calendars with sent notifications to us on regular basis.

Flowchart of the process



Method -2

- In some cases, some of the medical stores wouldn’t be having the option to scan the information and send the information to customer. So in this situation, we have an alternative method for the customer.
- Where the customer can scan the details of the medicine by simply facing the camera at the medicine.
- So in this situation, we will be combining the OCR and QR scanner technology to upload the details to the app from where the information is carried to the google spreadsheets from where we can carry forward the details to google calendar.

Process Flow

1) For any medicine strip that we take they would be containing a QR code at the back along with the manufactured data, expiry data etc.
2) So in this situation, the customer can use our app and take pictures and upload the data or we can have a live capture of the data.
3) Once we have the sufficient amount of data with us we can use the QR and the OCR technology to capture the information.
4) If incase, the details are not clear we will ask the customer to do it again, or we will give the customer to manually enter the details.
5) Once all the details are acquired we will forward the details to the google spreadsheets.

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6) From there all the data that is stored in the google sheets will be processed with the help of app script to update the events in the calendar.

7) Once the event is create a recurring event with a frequency of 3 or 6 months interval is kept to remind the customer about the expiry date.

8) Then we can set up notification to the either to the customer mail or app notifications for that particular day.

9) We can also set a count downtime in the google sheets we can be displayed in the app.

Technology used

- The Optical Character Recognition is used in order to detect for the text recognition which is used to detect the expiry date or the medicine name (in case if QR code is not present).

- This technology with the help of artificial intelligence(AI) can take the advantage of identifying the exact information.

- That we require in order to pull the information when it is combined with excess other information which is irrelevant or not useful for our purpose.

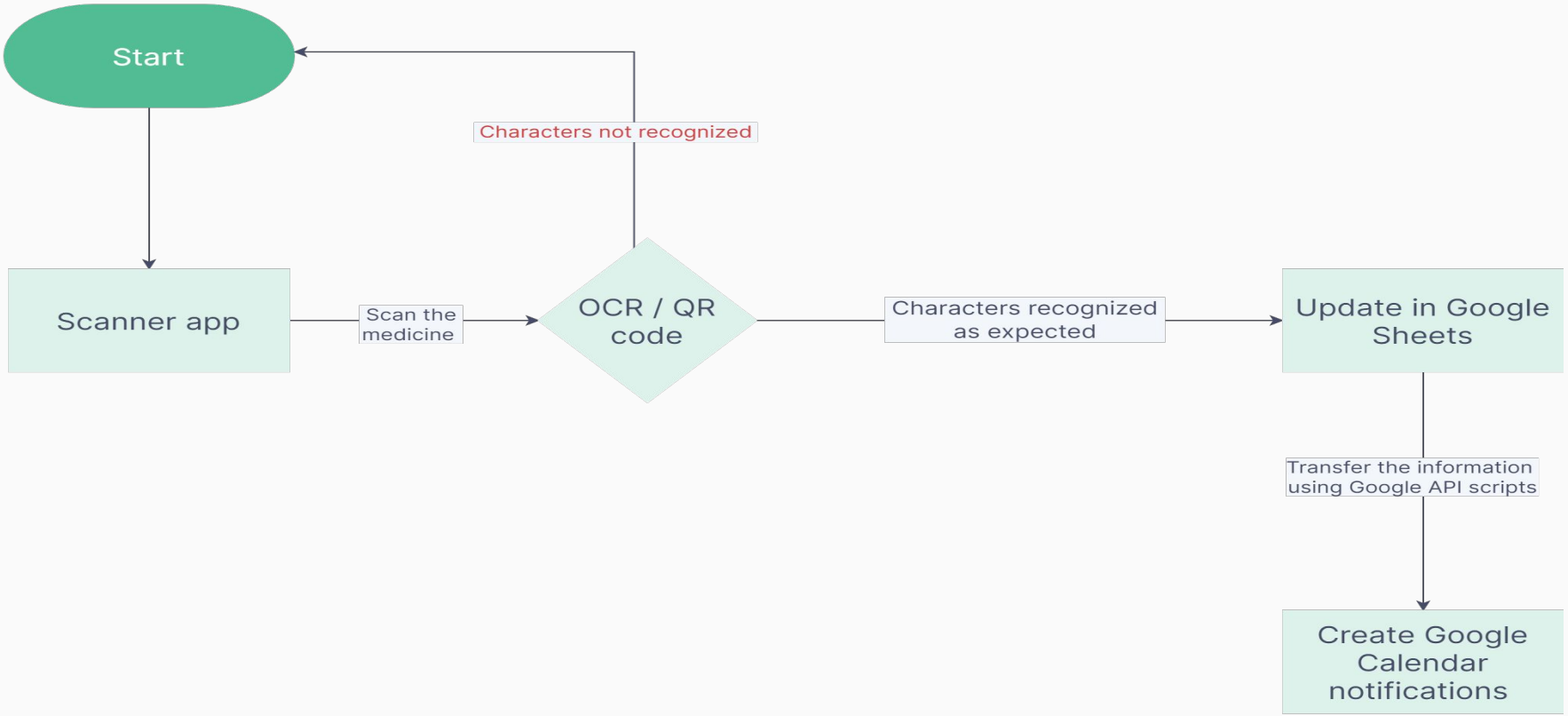
Technology Used

- The QR codes plays a vital role in this project as it helps us to grab the information such as the name of the medicine.

- This QR code is a 2 dimensional barcode in which the pharmaceutical companies try to use it on their medicines in order to provide details to the customers such as the chemical composition, Name etc.

- This information is vital in our project as it helps us to easily identify the name of the medicine so that we can tag it with the expiry date.

Flow chart of the Process



Thank You