Question 1:

[FirstCry PlayBees](#) offers a perfect kid's home-schooling app that helps them interactively develop amazing skills through about 500+ contents in the form of games, rhymes and stories.

Assume that you have access to the data for the PlayBees app below.

Table Schema:
The Activity table below contains the app-launch and purchase data of the users in PlayBees app, along with their country details.
The Activity table has the schema as shown below:

user-id	String
event-name	String
date	Date
country	String

Fields mentioned are described as follows:

user-id: An ID given to every single user to be able to uniquely identify them

event-name:
1. Records two activities of the user.
2. Takes values "first_open" and "in_app_purchase"
   a. **"first_open"**-the very first-time a new user launches an app, can only occur once for one user
   b. **"in_app_purchase"**-when user decides to make a purchase in the app

date: The date on which the user with a given user-id has triggered a given event

country: the country that the user with a given user-id belongs to

Question: Using the data above, write SQL queries to find the data-points as mentioned

1. **Daily Active Users:** Total number of users who were active (triggered an event) on a given day

Output format:

Date	Daily Active Users
date-1	Total number of users who were active on

	date-1
date-2	Total number of users who were active on date-2
date-3	Total number of users who were active on date-3

2. **Weekly Active Users:** Total number of users who were active (triggered an event) in a given week

Output format:

Date	Weekly Active Users
week-1	Total number of users who were active in week-1
week-2	Total number of users who were active in week-2
week-3	Total number of users who were active in week-3

3. **Same-day Purchasers:** Total number of users who have made a purchase on the same day they opened the app for the first time

Output format:

Date	Same-day Purchasers
date-1	Total number of users who have made a purchase on date-1 and opened the app for the first time on date-1
date-2	Total number of users who have made a purchase on date-2 and opened the app for the first time on date-2
date-3	Total number of users who have made a purchase on date-3 and opened the app for the first time on date-3

4. **Percentage of paid-users in each country:** Distribution of paid users according to the country they belong to, where country must be classified as "India","United States" and if the country is anything besides these two countries it must belong to "Others"

Output format:

Date	Same-day Purchasers
India	50% (dummy value)
United States	40% (dummy value)
Other	10% (dummy value)

5. **Day 1 Retention:** Among all the users who installed and opened the app on a given day, how many came back to the app on the next day

Output format:

Date	D0 users	D1%
date-1 (01-Mar)	Total number of users who first used the app on date-1	Out of total users who came on date-1 how many came on date-2
date-2 (02-Mar)	Total number of users who first used the app on date-2	Out of total users who came on date-2 how many came on date-3
date-3 (03-Mar)	Total number of users who first used the app on date-3	Out of total users who came on date-3 how many came on date-4

Question 2:

FirstCry PlayBees offers a perfect kid's home-schooling app that helps them interactively develop amazing skills through about 500+ contents in the form of games, rhymes and stories.

Assume that you are a data analyst in team PlayBees

You have to present high-level data about performance of the app, **from a business and product point of view** in the weekly data meeting to different stakeholders.

Question:Build a dashboard that helps you present this data through graphs, charts and visualizations. Include all the metrics, data-points that you feel are important to track the performance and health of the product.

This is your chance to be creative. All the Best!

In case you are new to Product and Metrics, here are a few articles that will help you get started on this assignment:
1. Product Success Metrics
2. Engagement Metrics

This question will be evaluated solely on the basis of what you are communicating through the dashboard and how.