**Instructions**

The main objective is to build a single-page dashboard with key metrics, insights, and visualizations on student engagement.

Start with defining the questions you would like to give answers to. Determine what visualization best fits a given query and how the information could be filtered. Then, create a rough sketch of the dashboard.

**Optional Instructions**

You should define more than one question you’d like to tackle with your dashboard. Compose a list of everything you’d like to cover first, and then structure your design accordingly. Here are some examples of questions you may want to answer:

1. Which courses are the most watched by students? How are they rated?
2. How would you define engagement (examples could be onboarding, minutes watched on the platform, exams/quizzes taken, etc.)?
3. What key performance indicators (KPIs) are relevant to the problem?
4. How many students register each month? What fraction of these students are also onboarded?
5. Do students watch more content with time? Is this seasonally dependent? Does it depend on marketing campaigns, promo periods, etc.?
6. How do the students engage with the platform based on user type (free or paid), subscription type (monthly, quarterly, or annual), and country?
7. Which are the countries with the most students registered? Does this number scale proportionally with the number of minutes watched per country?

**Please note that you’re not limited to these questions only. Feel free to add any other interesting analyses from which your dashboard could benefit.**

In the downloadable resources, you will find a **dashboard skeleton** that we have created as an example solution to the project. You could use it either as an inspiration or follow it closely.

The skeleton consists of the following elements.

1. Charts

1. A **funnel** showing the total number of users from a given country:
   1. Display the first 5 countries with the largest number of users.
   2. Depict each country as a horizontal bar.
   3. The bar length depends on the number of students from that country.
   4. Stack all 5 horizontal bars and sort the chart in descending order.
2. A **funnel** showing the minutes watched on the platform by users from a given country:
   1. Display the first 5 countries with the largest number of users.
   2. Depict each country as a horizontal bar.
   3. The length of the bar depends on the minutes watched by each country.
   4. Stack all 5 horizontal bars and sort the chart in descending order according to the number of users.
3. A**bar-and-line chart** showing the minutes watched:
   1. The height of the bars depends on the number of minutes watched.
   2. The line represents the average number of minutes watched.
   3. Visualize it monthly.
4. A**bar chart** showing the number of registered users:
   1. The height of the bar represents the number of newly registered users.
   2. A number of the students in a given bar have also onboarded (following the definition of an onboarded student). These are to be colored differently so we can visually assess how this number compares to the total number of registered users.
   3. Visualize it monthly.

2. Tables

1. A **table** with 5 columns showing the top 5 most watched courses:
   1. The first column shows the courses’ name.
   2. The second column shows the total number of minutes watched from each course.
   3. The third column shows the average minutes watched (number of minutes divided by the unique number of users that have watched the course).
   4. The fourth column shows the number of ratings for each of these courses.
   5. The fifth and final column shows the average rating for each course.

3. KPIs

1. A **‘Registered Students’ field** that shows the number of registered users
2. A **‘Minutes Watched’ field** that shows the number of minutes watched on the platform
3. An **‘Average Minutes Watched’ field** that shows the number of minutes watched on the platform, divided by the number of unique users who have contributed
4. A **‘% Onboarded from Registered’ field** that shows the percentage of registered users who have onboarded (out of all registered users)

4. Parameters

1. **‘Start Date’** and **‘End Date’** **parameters** that determine the time period of the collected data (**January 1, 2022 – October 20, 2022)**
2. A **‘User Type’ parameter** that allows for filtering by the following criteria:
   1. All
   2. Free
   3. Paid
3. A **‘Subscription Type’ parameter** that allows for filtering by the following criteria:
   1. All
   2. Monthly
   3. Quarterly
   4. Annual
4. A **‘User Country’ parameter** that allows for filtering by one or more countries