The goal is to clean and transform data using MS Excel, SQL, and Power BI and create a dashboard in Power BI providing the information requested by the stakeholder.

The data provided by the HR department includes 10-15 parameters per day per year (arrival/departure time, vacations, sick days, time off, etc) on 1000+ employees of the company. The task is to answer the following questions, which the CEO formulated:
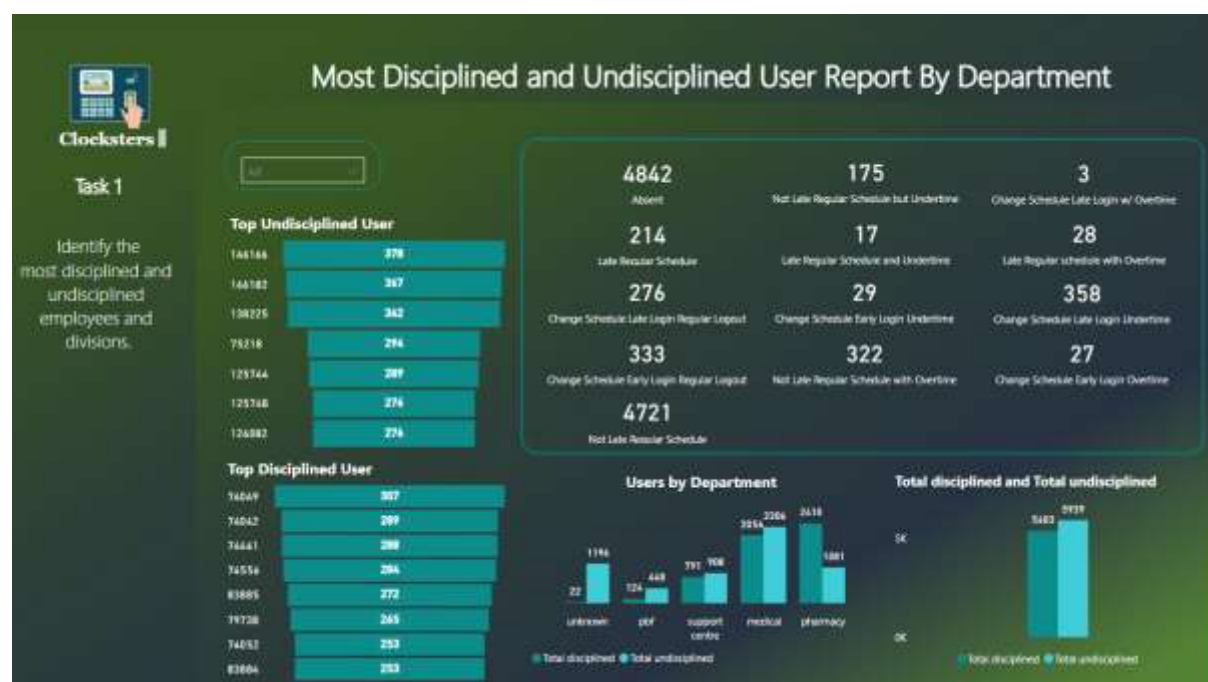
- Identify the most disciplined and undisciplined employees and divisions.
- Create a visualization with the analysis of weekdays and months when the most employees were late/absent (either for vacation or sick leave).
- Answer the following questions. Which heads of departments tend to forgive employees for lack of discipline? Are there any favorites for any heads of departments (perhaps some employees are always forgiven for being late, given time off, etc.)?

Task 1:

Identify the most disciplined and undisciplined employees and divisions.

In order to answer which user is disciplined and undisciplined in following his/her schedule, it is necessary to create a measure to know if a user is absent, late, not late or under time in his/her working schedule. The result after filtering the data set, there is a total of 5403 in disciplined users and there is a total of 5939 in undisciplined users.

Now that we know the count of undisciplined and disciplined users, we can answer task 1 through visualization using the data obtained.

The result of who is the most undisciplined, she is user 146166 a nurse from the medical department. She has 378 total counts of being undisciplined and 13 counts of being disciplined in her working schedule.
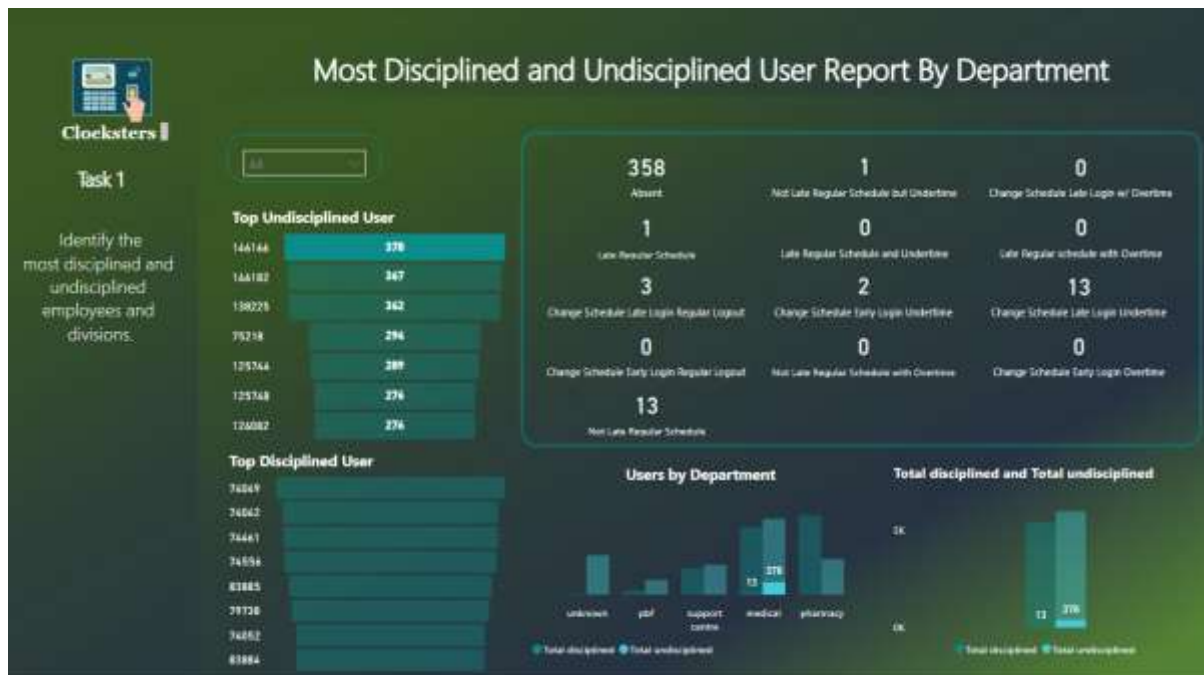
The result of who is the most disciplined user is user 74049 who is also a nurse from the medical department. She has 135 total counts of being undisciplined and 307 counts of being disciplined in her working schedule.
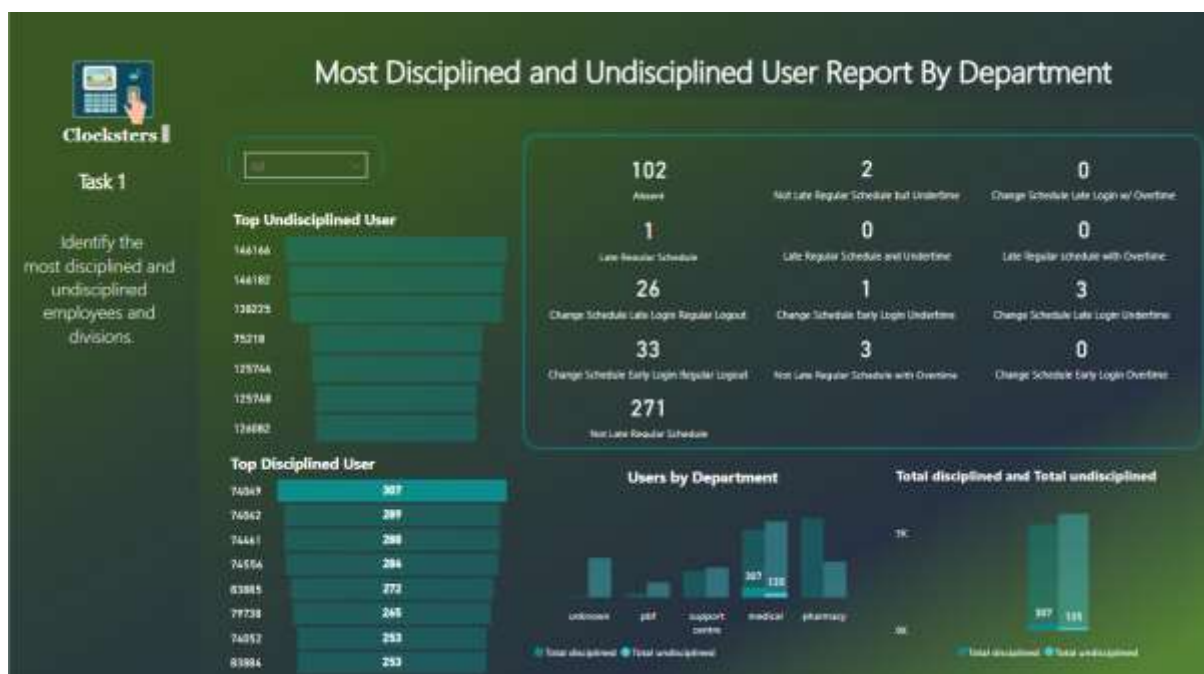
Task 2

Create a visualization with the analysis of weekdays and months when the most employees were late/absent (either for vacation or sick leave).

This is the analysis of the user's undisciplined and leave. In the year 2021, the department with the highest number of leaves is the pharmacy department with 65 counts, followed by the medical department with 52 leave counts. The support center has 20 leave counts. There were no recorded leaves in September and October. The leave started to have a record in November.

The very first record of undisciplined is user 74461 she is a pharmacist. From September to December 2021 there are 109 undisciplined records. Sunday has the most number of leave with 33 count in 2021.

In the Pharmacy Department, the top user with the most leaves is user 74639 with 17 records in 2021. In the Medical Department, it is user 74049 with 14 records of leave. The user with the most leaves in the Support center is user 74042 with a record of 12 in 2021.
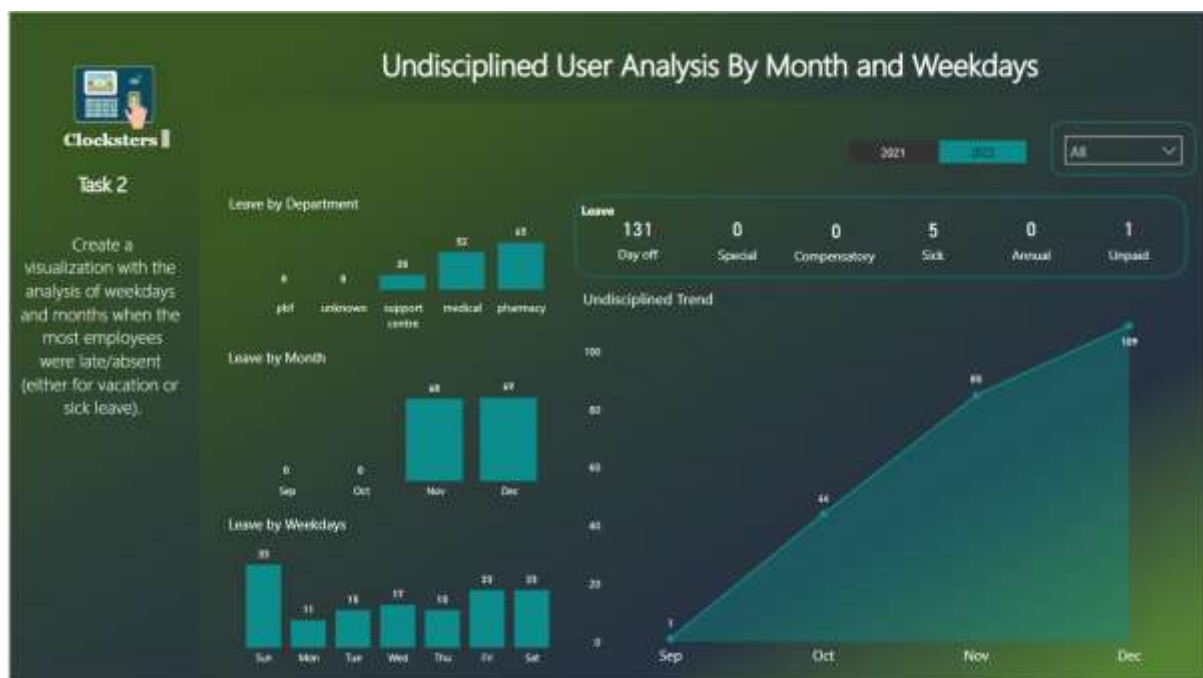
In the following year 2022, the trend of undisciplined began to increase with 231 records in January, there were 142 records of leave in the same month. The trend of undisciplined continued to increase as the months passed, it reached the highest of the trend in October 2022 with 827 counts of undisciplined and 221 records of leave in the same month. The trend slightly decreased in November and December 2022 with 688 counts.

In the Pharmacy department, the leading user with the most leave in the year 2022 is user 74639 with 129 counts of leave. In the Medical department, user 74049 once again topped the list with the most leaves with 94 counts. In Support center is user 83902 who took the lead in having the most leave in his department with 74 count leave in the year 2022. The PBF department already had a record of leave and the user with the most leave here is user 155509 a warehouse staff, he has 95 counts of leave in the year 2022.

Task 3

Answer the following questions. Which heads of departments tend to forgive employees for lack of discipline? Are there any favorites for any heads of departments (perhaps some employees are always forgiven for being late, given time off, etc.)?

I believe that every department has an employee that their department head favors. The leading user base in the visualization that came out is user 146166, a nurse in the medical department. It can be seen from her schedule and time record that in the entire duration of her contract, she only has 13 discipline records and the rest of her working schedule with total count of 378 is an undisciplined record. Most of her undisciplined record is absent with 358 record.

Based on the visualization, we think that user 146166 is being favored by her department because if an ordinary employee made this many undisciplined records, he/she would probably be fired, but in the case of user 146166, she is still connected to company even though his performance in his schedule is like this.