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Important notes:

- 1- Each agent has his\her weakness and strength in his performance, we need to find a suitable approach to improve their performance and numbers.
- 2- The used data in the analysis filtered by the period from **1st oct 2024** to **9th Feb 2025.**
- 3- The number of unique leads in the data are about 2856 rows (leads) from 6780 leads
- 4- After merging the touched leads in AWP leads table with the corresponding phone calls table by the name and last 3 digits from the mobile phone number as composite primary key in the two table, we got that numbers, specially they are unique and there's no duplications name and phone number together.

1- Data preprocessing

Over the past three weeks, I focused on improving data quality to ensure accurate analysis. Key efforts included:

- **Handling missing values** in critical fields like (Specialty, Last Call Status, Appointment Results, Not Interested Reason, Follow-up Action).
 - **Identifying inconsistencies** in the data, such as missing lead activities and misaligned call records between tables, which impact final insights.
 - **Coordinating with the CRM team** to validate data accuracy and request phone number access for better table integration.
-

2- Problems' statements:

A. Delayed Response Time

Challenge: Leads are not contacted immediately after assignment, which may reduce engagement.

Solution: We measured the response time (time between assignment and first call) to identify delays and optimize the follow-up process.

B. Ineffective Call Timing

Challenge: Many calls go unanswered, reducing overall efficiency.

Solution: We analyzed call logs to determine the best hours and days for reaching doctors and receiving positive responses.

C. Unclear Lead Activity Tracking

Challenge: Some lead activities are missing or incorrectly logged, making it difficult to track progress.

Solution: We merged the AWP Leads and Phone Calls tables to create a more complete activity timeline.

D. Agent Performance Variability

Challenge: Some agents struggle with low reachability and conversion rates.

Solution: We evaluated each agent's performance by measuring their reachability rate (answered calls) and interest rate (successful conversions).

E. High Unreachability During Certain Hours

Challenge: Calls made during specific hours often go unanswered, wasting time and resources.

Solution: We identified the hours with the highest unreachability rates and recommended adjustments to calling schedules.

F. Identifying Optimal and Ineffective Call Hours

Challenge: Calls made during certain hours result in lower engagement and unanswered calls.

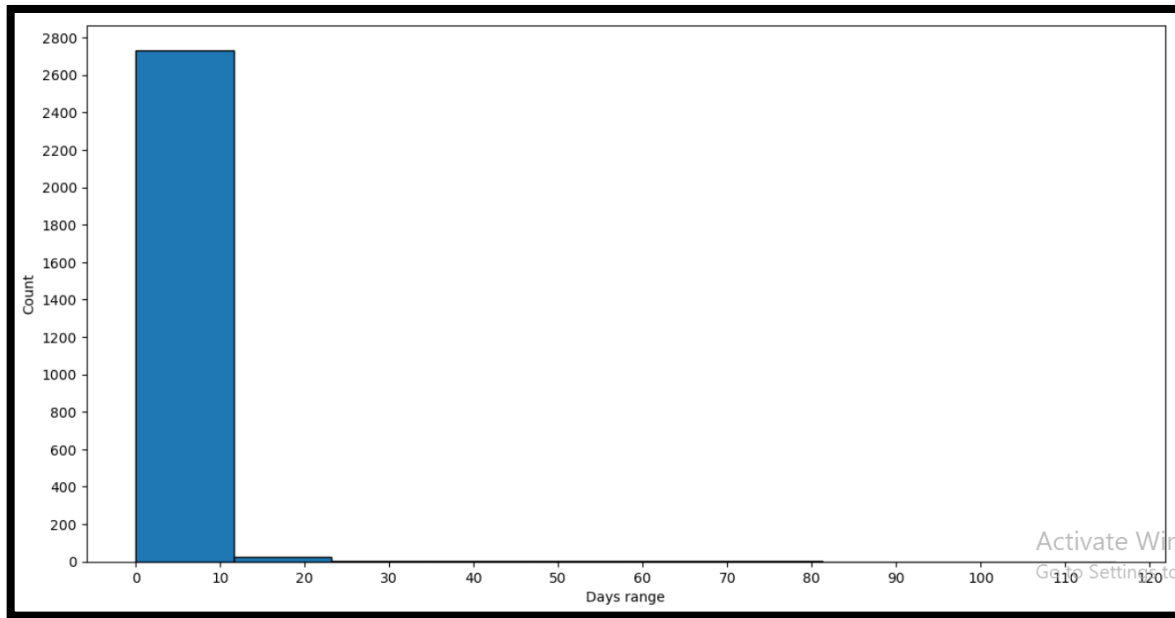
Solution: We analyzed call success rates across different hours to determine the best and worst times for agent outreach, optimizing scheduling for maximum efficiency.

2.1 Response Time:

Problem statement:

- Finding the period between the touched leads assignment date and the first response from the first agent who was responsible for this lead (first activity or first call) he\she made.

Insight results:



| Days range | |
|------------|------|
| 0 | 1855 |
| 1 | 343 |
| 2 | 234 |
| 3 | 115 |
| 4 | 65 |
| 5 | 47 |
| 6 | 51 |
| 7 | 31 |
| 8 | 9 |
| 9 | 17 |
| 10 | 27 |
| 11 | 15 |
| 13 | 23 |
| 14 | 1 |
| 15 | 1 |
| 24 | 2 |
| 31 | 1 |
| 44 | 5 |
| 45 | 1 |
| 48 | 5 |
| 51 | 1 |
| 61 | 1 |
| 68 | 1 |
| 70 | 1 |
| 72 | 1 |
| 76 | 1 |
| 80 | 1 |
| 116 | 1 |

Summary statistics about days range:

Min days = 0

Max days = 116

Average days = 1.5196078431372548

Most frequent range = 0

All days range we have:

```
[ 0  7 10  1  2  9  4  6 13 11  3 72 45  5 68 44  8 76
 48 15 51 24 116 61 80 31 70 14]
```

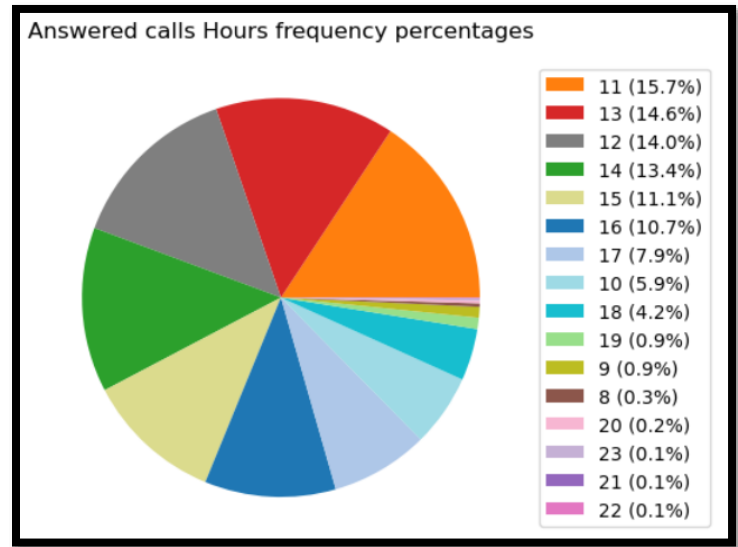
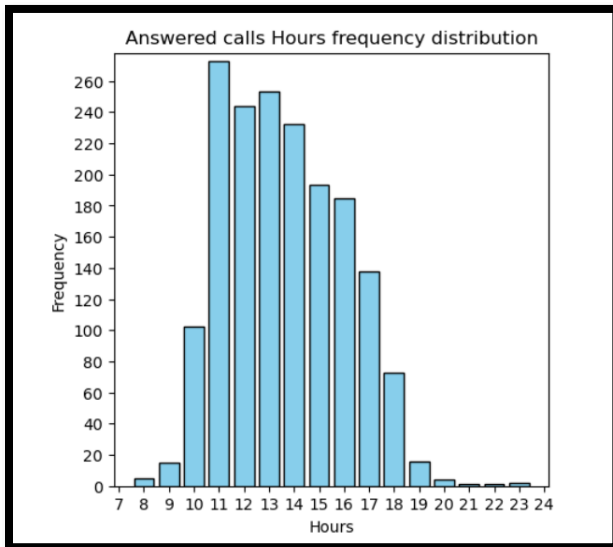
2.2 Best Hours to call DRs:

2.2.1 Best time to get answered calls:

Problem statement:

- Finding the hours that give us reachability by filtering data by the results that are related to any result means reachability.

Insight results:



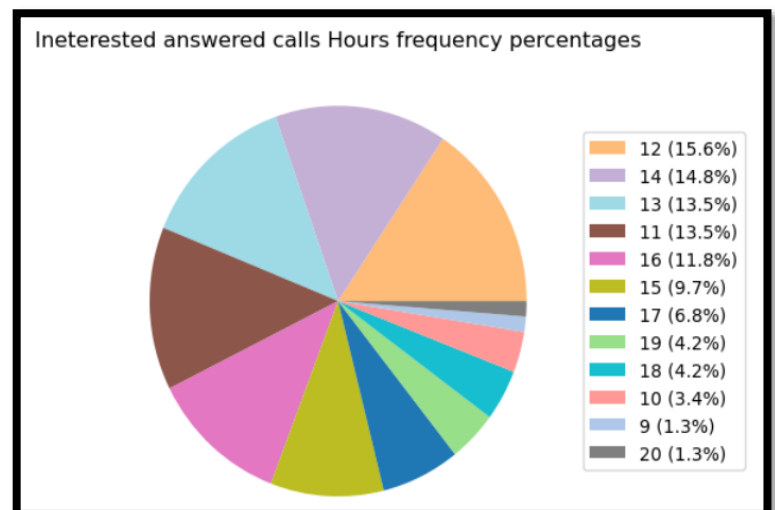
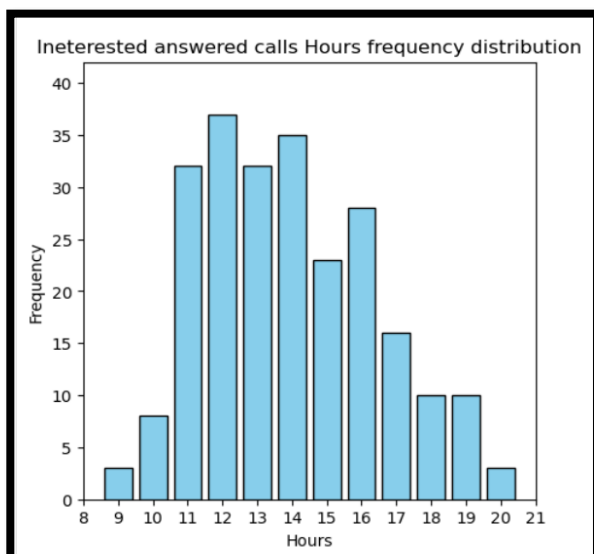
2.2 Best Hours to call DRs:

2.2.2 Best hours to get interested results:

Problem statement:

- Finding the hours that give us reachability by filtering data by the results that are related to any result means positive reachability, like ('Interested' , 'Interested Follow Up Required', 'Interested but not available').

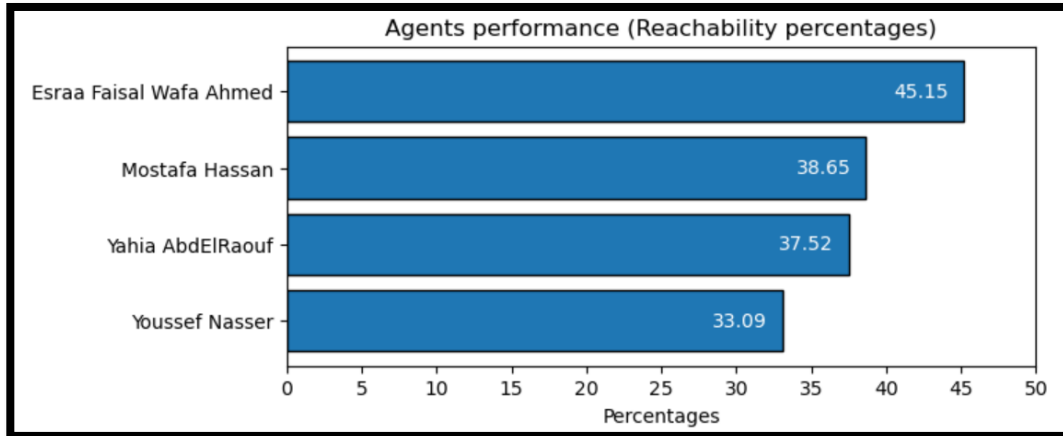
Insight results:



2.3 Agent calls reachability:

Problem statement:

- Finding the percentages of the reached calls of each agent according to all done calls.

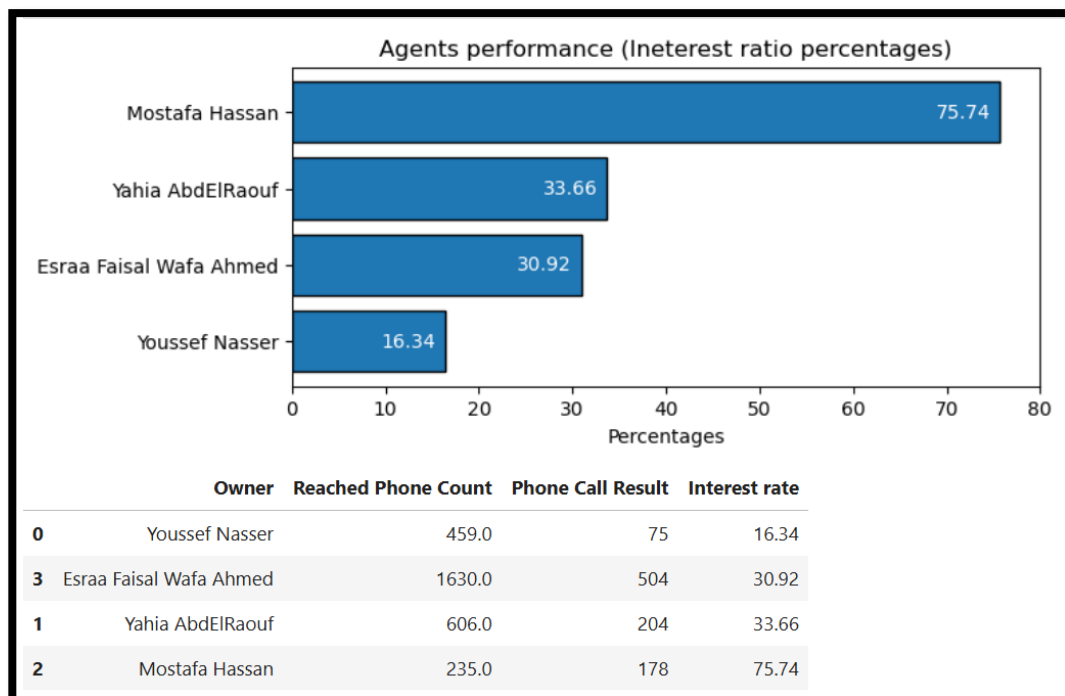


| | Owner | Count PhoneCalls | Reached Phone Count | Reachability |
|----|-------------------------|------------------|---------------------|--------------|
| 13 | Youssef Nasser | 1387 | 459.0 | 33.09 |
| 12 | Yahia AbdElRaouf | 1615 | 606.0 | 37.52 |
| 9 | Mostafa Hassan | 608 | 235.0 | 38.65 |
| 6 | Esraa Faisal Wafa Ahmed | 3610 | 1630.0 | 45.15 |

2.4 Agents interested result rate:

Problem statement:

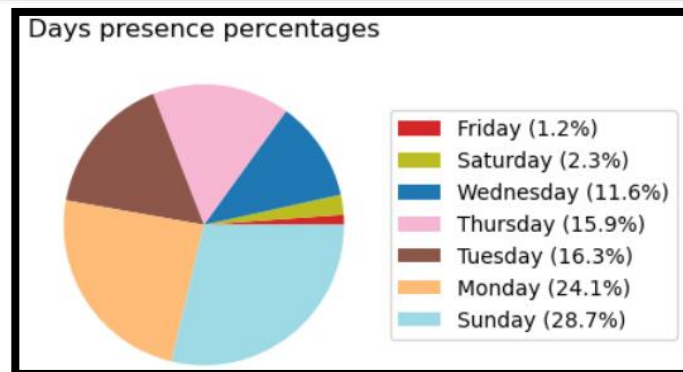
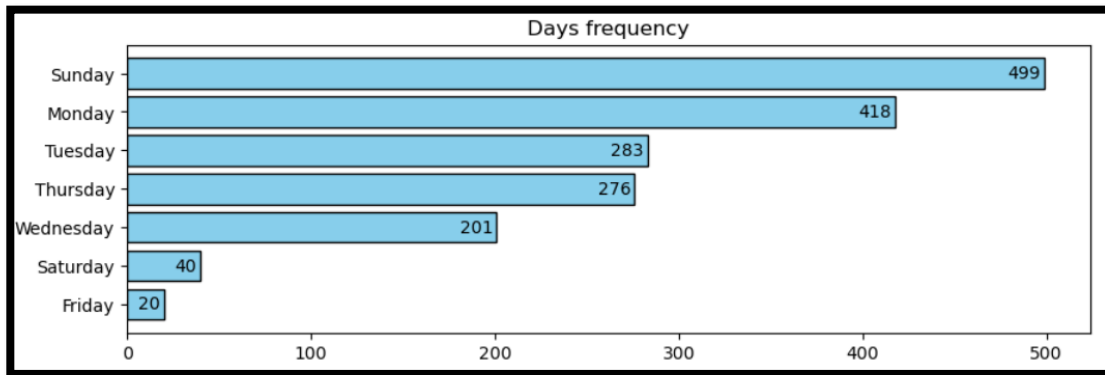
Filtering the interest rate the agent get, the rate is the percentages of the calls that has positive results ('Interested', 'Interested Follow Up Required', 'Interested but not available').



2.5 Best days for answered calls:

Problem statement:

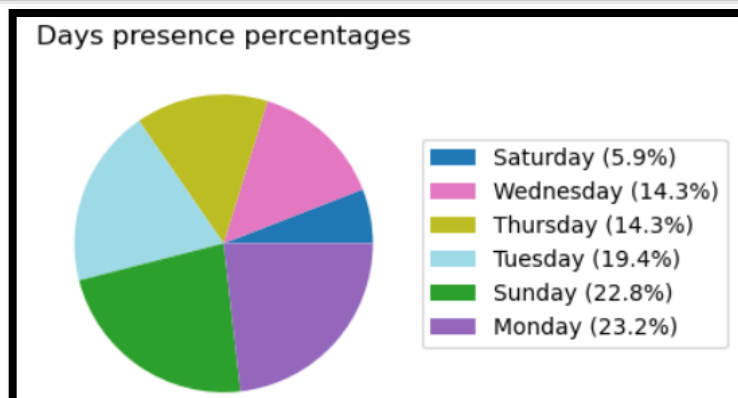
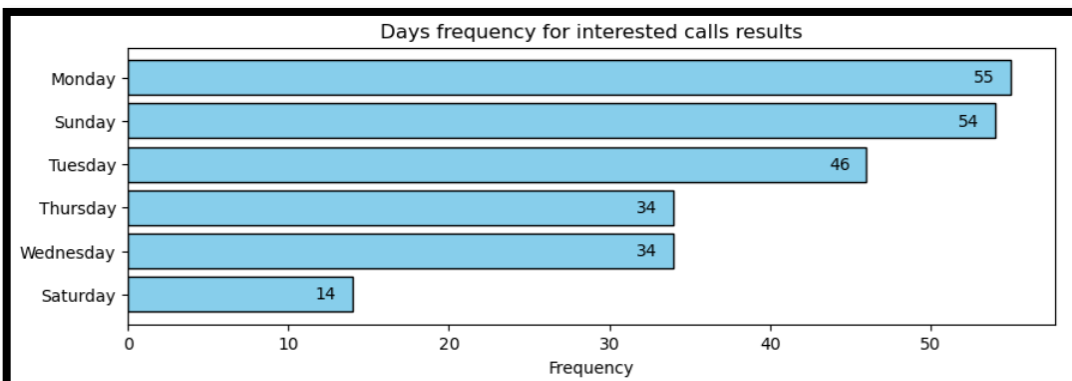
Finding the most frequent days and days percentage that we got reachability at them.



2.6 Best days for positive results:

Problem statement:

Finding the most frequent days and days percentage that we got in the positive reached calls result

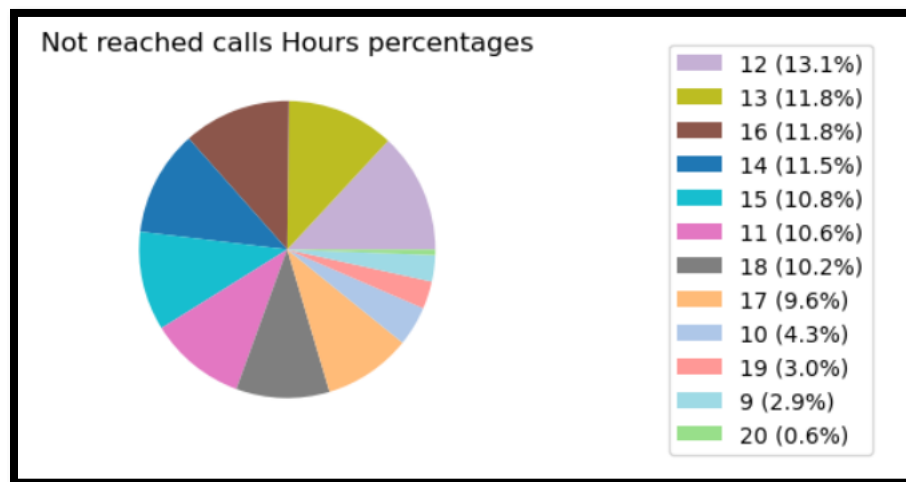
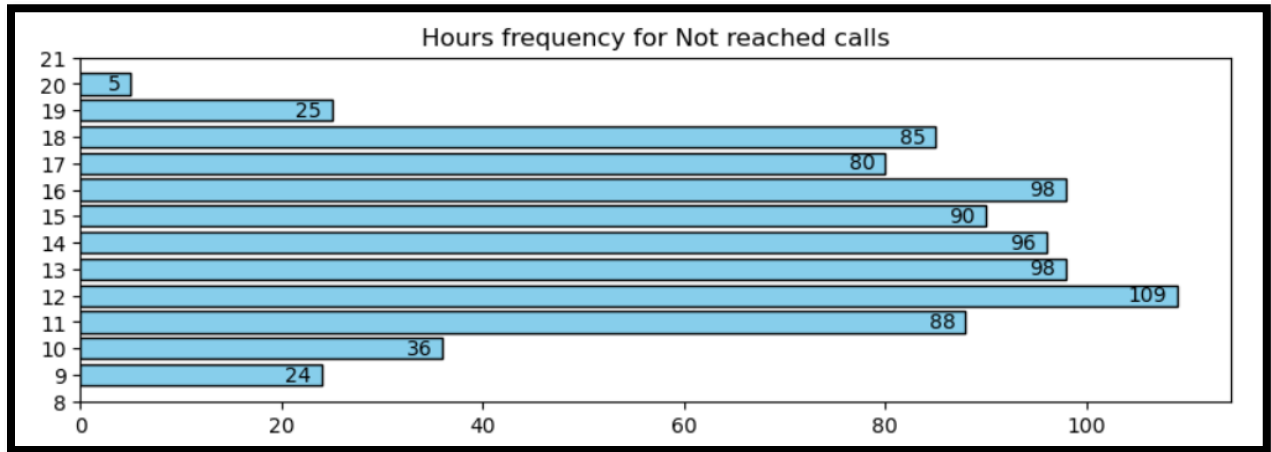


2.7 Hours that cause Unreached calls:

Problem statement:

Finding the average hours and hours percentage that we got in unreached calls.

Insight results:

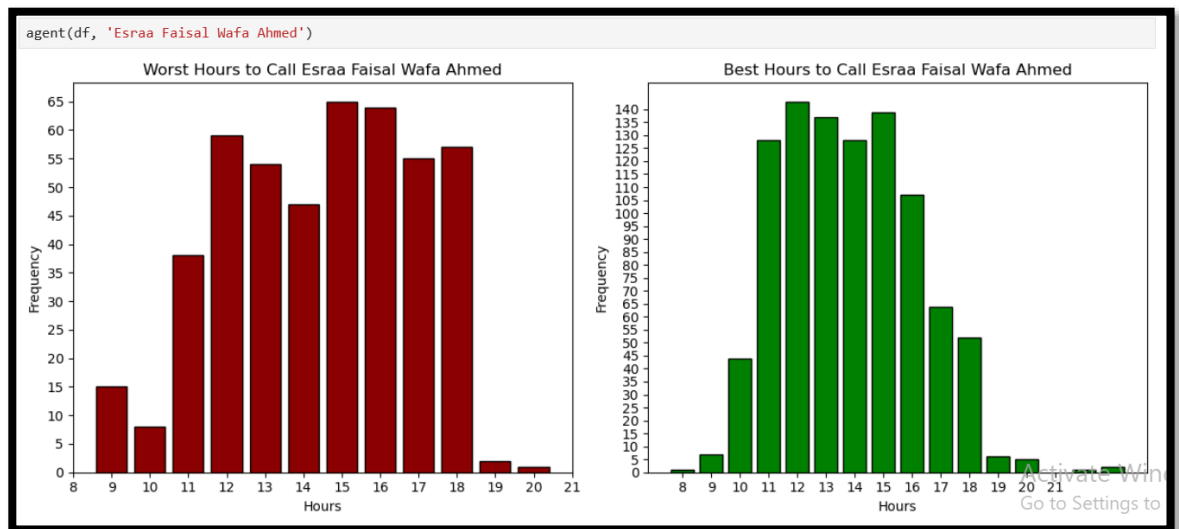


Conclusions and recommendations:

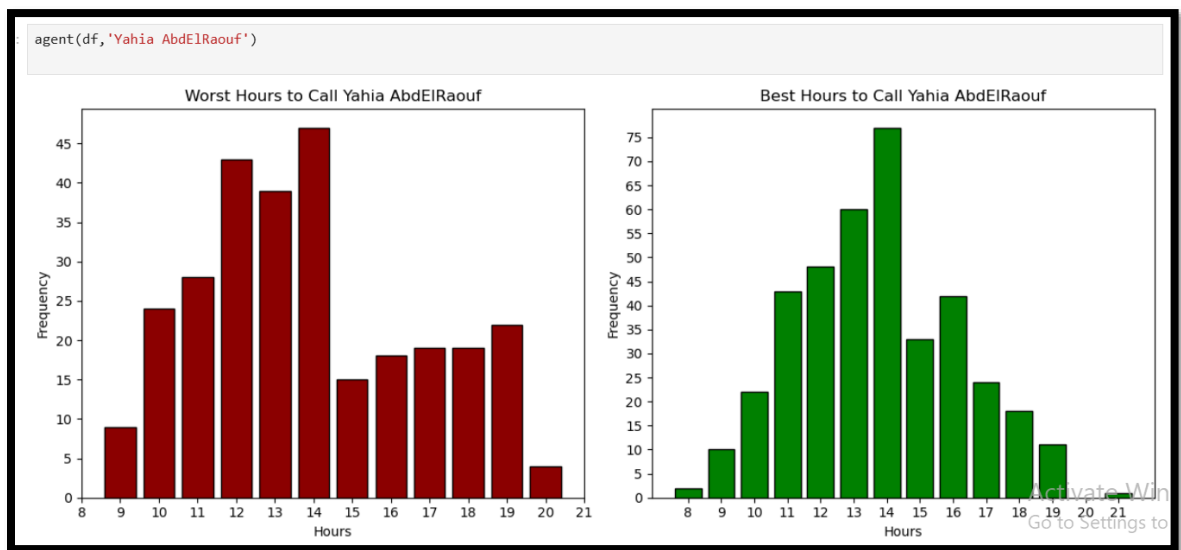
- Now, we find a violation in the insights, which is the hours that give us not reached calls are the same hours that give reachability. But they have lower percentages and all of their numbers are closer to each other.
- So, we can follow better approach for the reachability hours, which is finding the not reached and reached insights for each agent instead of displaying the overall rates for the team.
- This way can be effective, as each agent has his\her own different insights in different hours, and according to each one, we can give recommendations for each one of them to enhance the number and results.

2.8 Best and Worst hours to call for each agent:

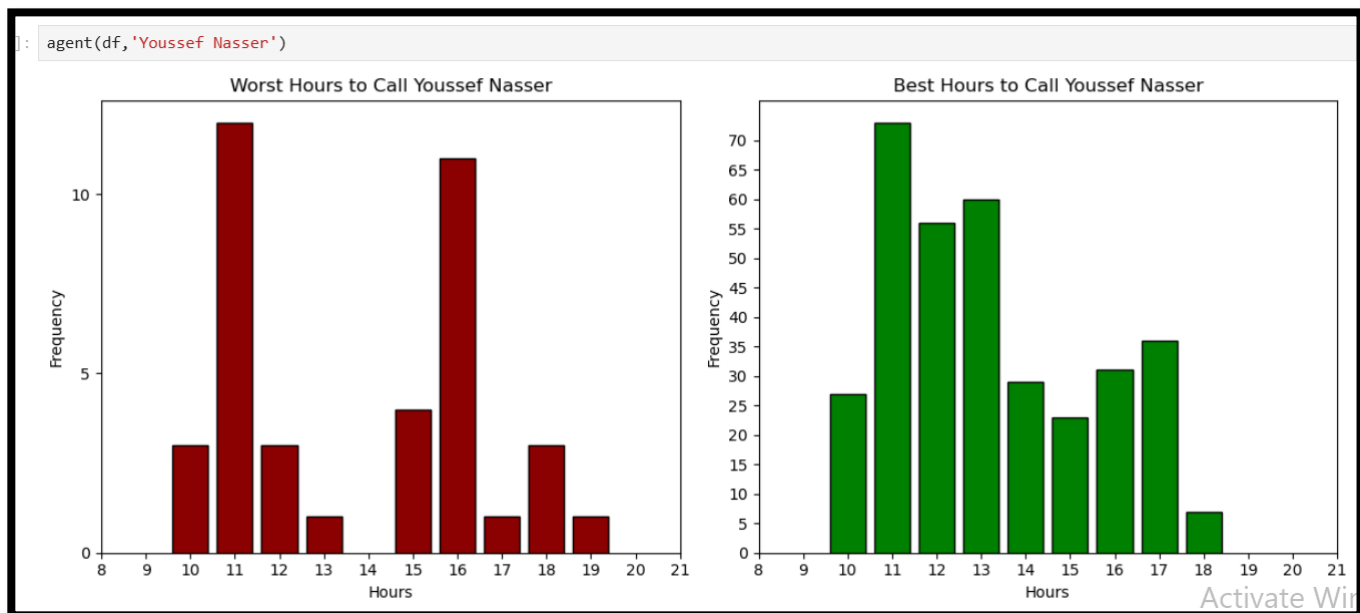
8.1 Esraa:



8.2 Yahia:



8.3 Youssef:

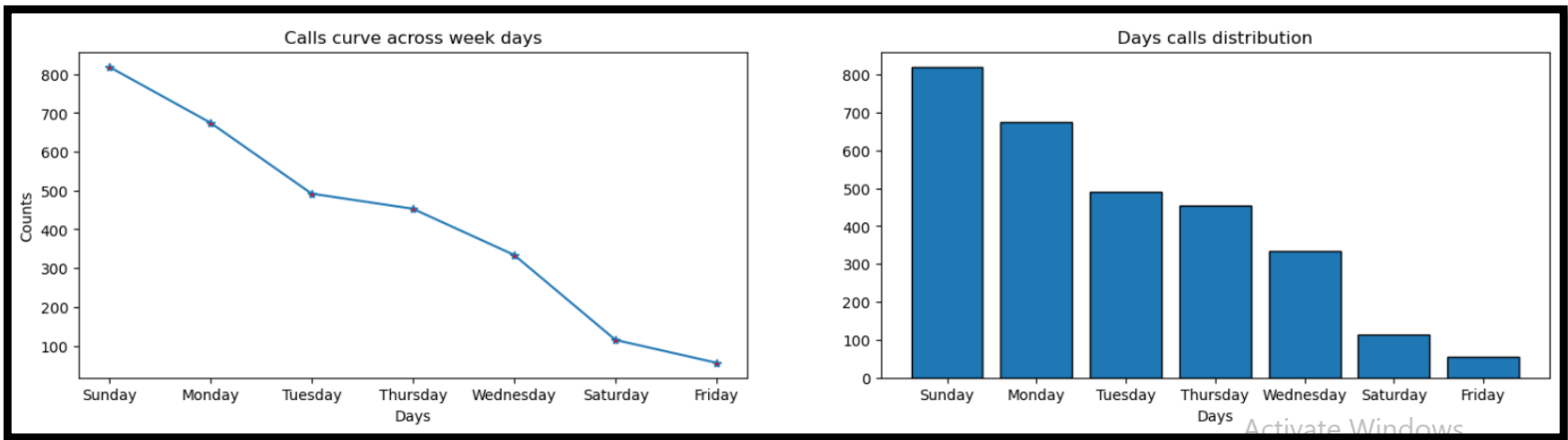


2.9 Relationship between Day name & calls counts:

Problem statement:

Finding the distribution of the calls days, and if there's any relationship between the calls number and days.

Insight results:



```
first call
Sunday      819
Monday      675
Tuesday     492
Thursday    453
Wednesday   334
Saturday    115
Friday       56
```

Conclusions & recommendations:

- The min range is 0 days, which indicates that the response is fast somehow, but there's a little delay in some cases which reached to 116 days!
- The large ranges are related to some old leads, but from the new year, the range was gone lower to 10 days as max range.
- The best hours that cause reachability with DRs range from 11 AM to 4PM according to calls history
- Calling DRs in the too early and late hours may get the DRs upset even if they are interested in the business idea.
- The most frequent hours that give us interested results from 11 AM to 4 PM which confirms the discussed conclusions in (2.1) problem.
- Top reached agent is **Esraa Faisal** with 45.24% rate as she has the biggest calls counts (3561 calls).
- The smallest reachability goes to **Youssef Nasser** with 33.14% rate despite his high number of calls (1382 calls).
- The noticed rate for **Mostafa** is good by smaller number of calls (569 calls) and despite that he got a good rate (39.54%), by more inspiring he can achieve a higher rate in the upcoming period.
- **Mostafa's** interest rate confirms the last points conclusions, He has a good reachability which caused a good rate in the positive results.
- About **Esraa** and **Yahia**, they need some improvements in the performance although they got good reachability, we can get some recommendations from **Eng. El-Hussien Ahmed**, as he is the most one who knows their calls and his opinion will play a god role in the process.
- **Sunday and Monday** are the best days that help us to achieve the reachability.
- Weekends (Friday – Saturday) numbers indicates that the DRs don't like to get calls from unknown numbers, or they prefer to reject calls.
- We can recommend increase the calls on these days if we need a higher response rate with respect to avoiding the delay or slower response which we discussed on the first point (1).
- We have an important note, the Friday doesn't get any interested DRs.
- Sunday and Monday still give us higher percentages in the positive reached calls results.
- If we go more closer to the weekend, we get lower percentages.
- If we go near to the weekend, the calls numbers curve decreases, most calls are done by the start of the week.