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UNDERSTANDING THE WORK TO TRANSFORM IT: AN INVESTIGATION OF STRESSOR FACTORS IN A CALL CENTER

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Summary

This article uses Ergonomic Work Analysis (AET) to evaluate the customer support sector, known as Contact Center, in a telecommunications company located in the interior of Minas Gerais. The application of AET was carried out in response to an internal demand from the company, with the purpose of identifying the stress factors present in the activities of telemarketing operators. The study covers all stages of AET, which include demand analysis, task analysis, activity analysis, diagnosis and recommendations. During the research, field observations and interviews were conducted with workers, aiming to obtain information about their know-how. Based on these observations and interviews, key diagnoses were identified. Firstly, it was found that the demands made by leadership were made in public, creating discomfort and cognitive pressure on workers. Additionally, faults in work equipment were identified, hampering workers' performance and efficiency. Another factor identified was serving aggressive customers, causing stress and negatively impacting the well-being of professionals in the sector. Based on the identified diagnoses, the study presented recommendations to improve working conditions in the contact center and expanded the perspective of leaders in relation to operators' activities. The study also highlighted that merely physical improvements, such as chairs and tables, were not enough to promote a healthier work environment.

Keywords: ergonomic work analysis; telecommunications company; stress; contact center.

1. Introduction

The business environment is becoming increasingly competitive. In this context, organizations and their competitors are seeking to conquer and expand their operations (SLACK, 1997). A consequence of this high competitiveness is an increase in the workload of operators, which can result in physical and psychophysiological exhaustion.

Ergonomic Work Analysis (AET) is an effective method for identifying causes of imbalance between the demands of the organization and the ability of workers to face challenges. The method begins in the demand survey stage and the sequential phases go through general knowledge of the company, open observations, systematic observations (interviews with operators and photographic recording of situations), elaboration of hypotheses and diagnoses, and finally, co -construction of recommendations. According to Abrahão and Pinho (1999), ergonomics is necessary in several situations, including manual work, highly complex work and issues related to workers' health. The application of AET is broad and essential to adapt the work environment to the needs of operators in different types of companies and services.

In this study, the AET was carried out in the customer service sector of a contact center of a telecommunications company located in the interior of Minas Gerais. The company offers telephone, internet and television services. This sector is made up of interns, training technicians, omnichannel, leaders, supervisors, managers and service technicians. The focus of the research was service technicians.

The main feature of the contact center is to provide support for possible problems that customers may face with the services offered by the company. The company's "image" is directly related to the way the support service is offered, requiring good communication from workers in the sector to resolve customer problems.

The objective of this article was to carry out an AET to identify the stressors present in the activity of telemarketing operators. Through this study, we sought to understand in detail the demands and working conditions of these professionals, analyzing how these factors can influence stress and well-being in the work environment.

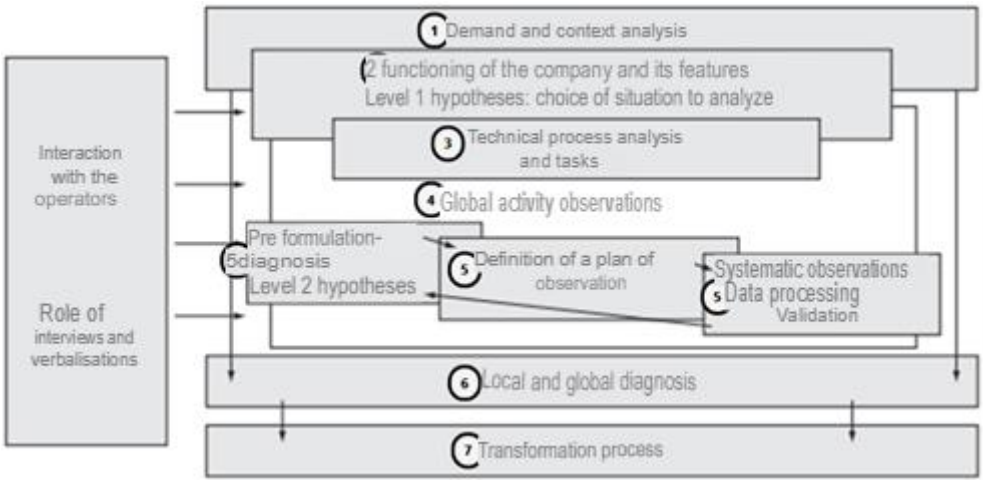
2. Development and Methodology

According to the Brazilian Ergonomics Association - ABERGO (2012), ergonomics is defined as a scientific discipline whose objective is to promote human well-

being through theories and methods applied in projects, covering the interaction between individuals and elements. In line with this definition, Corrêa and Boletti (2015) state that ergonomics aims to offer comfort, meet people's needs and ensure healthy work practices. These aspects extend to also encompass the organizational, psychosocial and political scope of a system.

As outlined by Santos (1997), AET seeks to adapt the work environment to improve workers' conditions and maximize production potential. The AET encompasses several steps to be followed to arrive at recommendations that aim to resolve or mitigate identified problems. Figure 1 presents a sequential description of the AET steps. Each of these steps covers different phases of ergonomic action, which will be detailed further in subsequent topics.

Figure 1 – General scheme of the ergonomic action approach.



Source: Adapted from Güérin et al. (2001)

1 - Analysis of demand and context: the manifestation of a problem by managers and leaders within the company is the starting point. In addition, field research is carried out to better understand the nature of the issues and the operators' specific problems. This step lays the foundation for subsequent phases of ergonomic action.

2 - Operation of the company: in this stage, information about the organization is collected, the characteristics of the population are surveyed (level 1 hypothesis) and the analysis situations are chosen.

3 - Task analysis: the next step involves directing strategies to the sector in question, the contact center. The task analysis covers all responsibilities within this sector, with a main focus on the Jr1 customer service technician. In addition, specific interviews are carried out for each function performed by employees, aiming at the detailed elaboration of the tasks. All interviewees signed an Informed Consent Form (TCLE) and were informed about the confidential and ethical nature of the research.

4 - Activity analysis: the objective is to thoroughly understand the activities carried out by Jr1 service technicians. To this end, all tasks performed by the operator during a typical working day are closely monitored, from arrival to the end of the shift. In other words, the approach consists of monitoring the worker's entire routine during their activities.

5 - Level 2 hypothesis: in this phase, more detailed data collection is carried out, through interviews and thorough analysis of the data gathered. This culminates in the elaboration of the level 2 hypothesis.

6 - Diagnosis: the main objective is to detect possible problems that could affect the health, safety and performance of workers. This phase is also a response to demand.

7 - Recommendations: to prepare recommendations, the data collected in the research field, statements and systematic and open observations must be taken into account.

To construct the AET, it was necessary to structure the research as a case study, characterized by its exploratory and descriptive nature. In this type of study, researchers' concepts are correlated and analyzed together with facts or phenomena observed in real organizational environments, through surveys and systematic observations.

As emphasized by Yin (2001), the case study approach is the most appropriate for investigating a phenomenon within its real context, and the use of multiple sources of evidence is recommended. This type of research has an exploratory nature, aiming to create familiarity with the problem to make it more understandable and establish premises (GIL, 1991). Furthermore, this approach is descriptive, as it aims to define the nature and present the characteristics of a phenomenon in a specific group (SELLTIZ, 1987).

Data collection encompassed two main sources of evidence: field work, through recording data from the company, and interviews. These sources proved to be appropriate for obtaining information about people's perceptions and how they deal with the variables present in the work environment.

The interviews were conducted using a semi-structured approach, as outlined by Triviños (1987, p. 146). This approach consists of questions based on theories and hypotheses related to the research topic. The answers obtained from the interviewees generated new hypotheses, with the central focus being established by the researcher-interviewer.

The company selected for data collection is an internet provider located in Itabira-MG, which also has branches distributed throughout the state of Minas Gerais. This company offers a variety of services, including telephone, pay TV and various Value Added Services (VASs). However, the main service is the provision of broadband internet, both through radio and fiber optic connections. The company's staff consists of around 1000 workers.

The sector of the company where the AET will be carried out is the contact center, which is responsible for providing assistance to customers and resolving any defects and, if necessary, requesting a technician to come to the location.

3. Results and Discussions

Initially, an interview was conducted with the sector manager, in which he was asked about the main issue faced within his area. The response obtained was the following:

> *"Generally, the contact center sector is the gateway to the first job for many young people who do not have a workforce qualification, in addition, the low salary and the schedule being done in shifts, making it mandatory to work on holidays and weekends, end up leading employees to choose to leave the company when they have a better job opportunity, thus leading to a high turnover rate, 16 to 20 employees in the last 6 months, being one of the sectors with the highest dropouts ". Sector manager (emphasis added).*

Within the response, significant, highlighted points are visible, which require further analysis during the conduct of the AET. In order to more comprehensively address the crucial aspects of the scenario, the demand was redefined as: "Triggering factor for worker turnover within the contact center sector".

After the restructuring of demand, the exploration and general operation of the company began. In this phase, several activities were carried out, including a comprehensive data collection that incorporated organizational charts and timetables of the sector in which the demand was identified. Furthermore, specific information was obtained about the characteristics of the workers involved. Finally, the scope of the situation to be analyzed was defined, establishing the focus of the investigation.

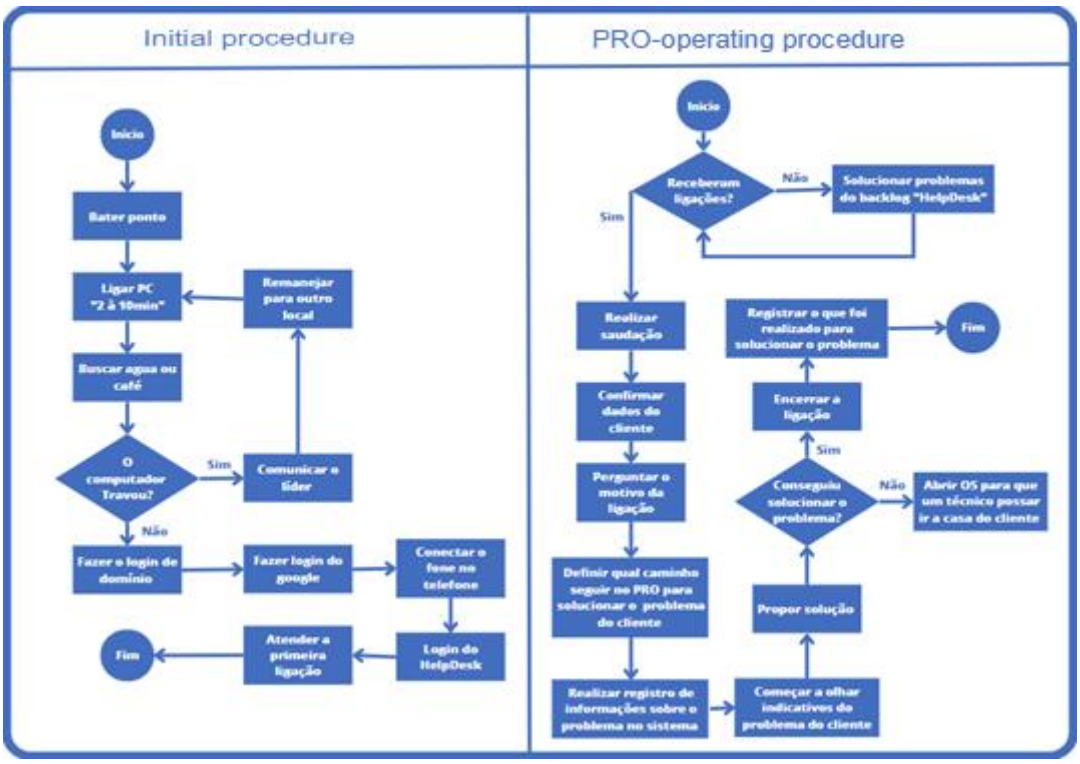
The contact center sector is made up of eight teams, consisting of: 7 Junior customer service technicians; 2 omnichannel; 1 operational leader and 1 supervisor (responsible for two teams). Jr customer service workers have a 6-hour working day. During this journey, they have a 20-minute break with timekeeping, as well as two additional breaks of 10 minutes each, which do not need to be recorded.

Among the employees, some have fixed working hours, while the majority follow a schedule of 4 working days followed by 1 day off. On each of these working days, shift times vary, being established as follows: 06:00 - 12:20; 07:50 - 14:10; 09:40 - 16:00; 13:40 - 20:00; and 15:50 - 22:10.

When conducting a more thorough analysis of data relating to the Junior Attendant role during the period between December 2021 and June 2022, a revealing picture emerged regarding worker turnover in the sector. During this period of time, the following trends were identified: a total of 16 workers left the company, divided equally between those who chose to leave voluntarily and those who were terminated. Within this group, it was noted that 3 individuals were hired after December 2021. The average age of workers who chose to leave the company was 24 years old, while the average period of stay was 15 months. In terms of gender, 82% of the departures corresponded to men, while women represented 18% of this total.

After the stage of understanding the general functioning of the company, the next stage was the analysis of the Jr service technician's task. He is responsible for serving the customer, through telephone contact, aiming to maintain the loyalty and satisfaction of all the company's customers. . The initial procedures for his task are shown in the figure below (Figure 2).

Figure 2 – Initial procedure / Operational procedure - PRO.

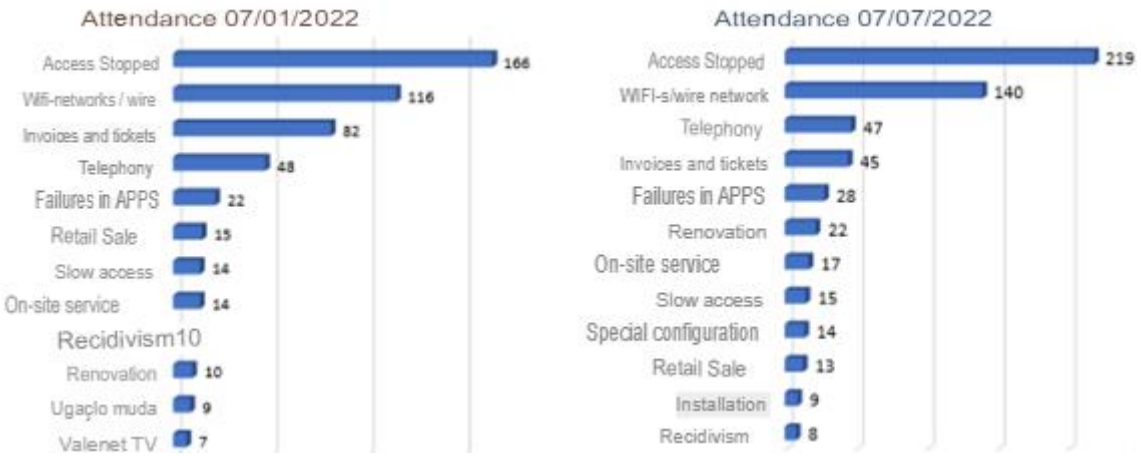


Source: Own material (2023).

In the right part of Figure 2, it is possible to see the steps that the technician must take when interacting with the customer, aiming to identify and resolve the issue presented. In the company's view, accurate and complete adherence to this procedure directly correlates with the speed and effectiveness of service, as well as the discovery of the solution.

When moving from the task analysis stage to the activity analysis, some nuances of the work begin to be revealed. As an example, in two monitored consultations, it was possible to make the following comparison (Figure 3):

Figure 3 – Quantity and type of problem that the attendant needed to solve.



Source: Own material (2023).

For the purpose of understanding, below is a service transcribed in full with explanations of why the attendant chose to carry out certain actions:

> *Attendant: "How could I be helping you today?"*
> *Customer: "My internet is very slow and the router is not far from me."*
> *Attendant: "In this case, what exactly is it slow to do? How do you check this slowness? Could you give me examples?"*
> *Client: "Films on Netflix are freezing and Globo plays the same thing."*
> *Attendant: "Which device do you access these other services on?"*
> *Customer: "Cell phone, computer and TV".*
> *Attendant: "Is the computer a desktop or notebook? Connected via Wi-Fi or cable?"*
> *Customer: "Computer and with cable".*
> *Attendant: "Is your TV a Smart TV or is there a device that you connect to the TV? Connected via cable or Wi-Fi?"*
> *Client: "Smart TV and Wi-Fi".*
> *Attendant: "Right."*

The attendant emphasized the importance of collecting relevant information when faced with customer questions. He cited the example of a Smart TV working with cable, while another TV connected to Wi-Fi was not working. The attendant highlighted the need to record everything from the beginning, to identify the problem and resolve it.

> *Attendant: "Tell me your full name"*
> *Client: "_____"*
> *Attendant: "___ do you use the Wi-FI device that the company provided or do you have another one?"*
> *Customer: "I use the company's equipment"*
> *Attendant: "The main failures occur when you are closer or further away from the router? Both from the computer and the TV"*
> *Client: "I use the TV in a different room, but there are no walls for the divider and it is next to where the router is, while the cell phone and computer are next door" .*

The attendant explained that the use of this type of connection is considered outside the room. He then accessed the customer's router settings website, where he modified the 5G network channel and band, and restarted the router. He made these changes to adjust the frequency to a common standard, as too many neighbors using the same channel can cause connection problems.

> *Attendant: "___ are you in the same room as the router?"*
> *Customer: "Yes"*
> *Attendant: "Please, I will ask you to access the YouTube or Netflix you mentioned on your cell phone"*
> *Customer: "Just a moment"*
> *Attendant: "Is it working normally?"*
> *Client: "Globoplay seems like a message that isn't getting through"*
> *Attendant: "Globoplay is undergoing internal maintenance at the moment, is there any way to test it on Netflix?"*
> *Client: "Netflix is going, but Globoplay is much heavier than Netflix"*
> *Attendant: "So, both Netflix and Globoplay are light. I'll ask you to monitor the internet these days to see if you continue to experience these glitches, but here it shows that it's working correctly"*
> *Customer: "Ok, but every week I have to call to complain that the internet is slow, this makes it very difficult"*
> *Attendant: "I understand, in this case these failures are occurring when you are far from the device and the further away it becomes slower due to the coverage radius that the Wi-Fi has"*
> *Customer: "What's that damn thing?"*
> *Attendant: "I won't know exactly what the dimensions are, but walls and objects get in the way. So, I'm just going to ask you to monitor it, because I changed some settings so that these failures no longer occur"*
> *Customer: "Okay"*

The transcription above highlights a call that reveals the diversity of activities involved in customer service. Each call is intricate and, sometimes, the attendant cannot meet all demands. It is crucial to highlight that, in the highlighted part, the customer expressed frustration regarding the quality of the service due to the need to make calls on a recurring basis. Even in such a scenario, the attendant followed the established protocol. However, over time, this reaction results in emotional exhaustion and an increase in stressors in the work environment.

When advancing through the AET stages, the level-2 hypothesis is reached. At this stage, data collection becomes more specific, involving visual observations in the work field. In addition, semi-structured interviews were conducted to contribute to the construction of the level 2 hypothesis. Additionally, an anonymous survey was carried out, containing a set of questions, with the purpose of obtaining a deeper understanding of the workers' daily lives.

When analyzing the responses, a difference emerged between workers who follow a fixed schedule and those who adopt a sliding scale. In the fixed scale group, 100% of workers expressed satisfaction with their schedule, while 70% of those following the sliding scale expressed the same level of satisfaction. Additionally, it was possible to observe that, on average, for every 10 calls answered, 4 of them were considered stressful. In addition, charges were observed in public to reduce the average service time (AMR).

In addition to this data collection, semi-structured interviews were conducted with 5 junior attendants. Using the key question "What factors influence your performance at work?", subsequent questions were developed, without prior formulation, with the aim of identifying the elements that contribute to raising the level of stress in the work environment and could result in a loss of motivation to stay at the company. Among the responses obtained, one of them stood out:

> *"Difficulty in answering questions with the supervisor, as there are you and 5 other people in line to ask questions." Attendant 2.*
>
> *"It varies from person to person to be able to deal with the stress of some calls, due to the swearing from customers, which is common in the support sector". Attendant 4.*
>
> *"In the beginning, it takes a while for you not to take the stress of work home." Attendant 5.*

Through detailed analysis of the data and information presented, the level 2 hypothesis could be formulated: "It appears that the factor that contributes to the departure of workers from the contact center sector is linked to stress resulting from telephone calls." Contrary to the initial perspective outlined by the manager at the beginning of the research, which pointed to work shifts and the physical conditions of the work environment (such as infrastructure and furniture issues) as primary causes of absence, the study showed that the challenge of stress in the workplace The workplace, resulting from various elements such as pressure exerted by leadership, challenging interactions with customers and the constant demand to meet goals, is directly influencing the reduction in employees' length of stay at the company.

Based on the level 2 hypothesis previously presented, three possible diagnoses were formulated that appear to be contributing to the intensification of stressful factors in the operator's activity, as detailed below:

Charges made in public: Imposing an average call duration on agents often results in pressure to end conversations within this range. When they cannot meet this requirement, they are forced to end the call and return later, resulting in a backlog of tasks. The presence of omnichannels, which assess delays due to lack of guidance or other factors, contributes to increasing tension in the work environment.

Equipment failures: The problem starts when operators face difficulties connecting headsets to phones. This setback is due to poor contact or wear on the equipment. Additionally, testing on devices can only be conducted when workers are on calls. When a mishap occurs during the call, it is automatically terminated. This scenario generates internal tension in operators, predisposing them to wear and tear in the work environment.

Aggressive customers: A factor that substantially intensifies stress in the workplace is the occurrence of interactions with aggressive customers, who use offensive language, swearing and rude behavior when communicating their problems. During the interviews, one of the Jr. attendants mentioned that his co-workers should learn to differentiate between professional and personal aspects, avoiding carrying work stress into the home environment. This indicates that new employees need to quickly acquire the ability to delimit these spheres, as a measure to reduce the level of stress.

The three diagnoses presented are responses to the demand previously reformulated at the beginning of the AET. Based on these diagnoses, it was possible to see that stress in the operator's work environment was influenced by the quality of equipment, leadership style and interaction with customers. Based on this understanding, some recommendations were formulated.

Equipment: it is recommended that the company seek a partnership with a third-party company to perform repairs and preventive maintenance on phones and headsets every quarter. This will ensure that the equipment is always in perfect working order and will minimize failures and associated problems.

Collections made in public: Assertive communication training must be implemented, aiming to improve collection interactions, making them smoother and more effective. These trainings should take place every six months and be conducted by the People Management department.

Customer communication workshop: This recommendation plays a central role. Conducting a specific workshop on customer communication will help improve problem-solving skills and reduce stress during telephone interactions.

4. Conclusion

Based on the data previously presented, it is clear that the stressors in the operator's work environment are directly related to several sources, including excessive pressure from leadership, inadequacy of work equipment and stressful calls throughout the working day. These factors combined culminate in a hostile and tense work environment.

Taking this perspective into account, scientific literature corroborates that stress is caused by a variety of elements, ranging from the way workers face adversity to their ability to react. Consequently, when we consider that stress can derive from multiple factors, several elements can be identified as its causes, covering physical, chemical and psychological factors originating from the environment, as well as pressure and tension, as pointed out by Chiavenato (1999).

Throughout the development of this study, one of the interviewees highlighted that the early perception of the need to establish a clear demarcation between the professional and personal environment reduced the individual's level of stress. This highlights the importance of considering multiple factors in the context of occupational stress, expanding the analysis beyond the work environment.

The definition proposed by Ferreira (2008, p. 213) in relation to occupational stress emphasizes the relationship between work demands and the worker's capabilities, highlighting the anxiety arising from the discrepancy between these two aspects as a significant source of stress.

As mentioned, a diversity of definitions for stress can be identified in the literature, as well as the way in which internal and external factors can intensify this condition. In the analysis carried out, it is clear that the core of the diagnosis focuses on stress originating in the work environment.

Based on the information obtained during the AET, it is observed that, initially, the manager associated employee turnover with work schedules or people's inexperience

in their first job. However, as AET was deepened for a more comprehensive understanding of tasks and activities, a strong trend emerged indicating that stress from challenging work was playing a crucial role in the loss of human resources.

After the interview phase, it became clear that work schedules did not have a significant impact on worker satisfaction. This led to the rejection of the manager's initial hypothesis, which considered scale as one of the causes of turnover. In contrast, the analysis demonstrated that stress was a key element, especially given the fact that 40% of calls were considered stressful. Additionally, the result of the Net Promoter Score (NPS) corroborated this perception.

It is worth noting that among the three areas of ergonomics, the hypothesis raised by the manager as a stressor at work was related to physical ergonomics; however, the research demonstrated that it encompasses issues involving cognitive and organizational ergonomics.

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