ASSIGNMENT 2 FRONT SHEET

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Student declaration

I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.

	Student's signature	*DUC*

Grading grid

P6	P7	M4	D3

☐ **Summative Feedback:**   ☐ **Resubmission Feedback:**

Grade	Assessor Signature	Date

Internal Verifier's Comments:

Signature & Date:

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I. Introduction

The research paper with the topic "The negative impacts of recycling e-waste as household appliances on the environment according to 20 – to 50 - year – old residents' actions in Hanoi and some suggested solutions" has been completed. The research is based on research methods including primary research and secondary research, in which, primary research focuses on quantitative methods based on survey results. In general, the research paper has raised the problem, clearly stating the hypothesis, based on the survey data to prove the theory and draw conclusions. In this paper, the researcher will review the research done to draw achievements, find mistakes and limitations that still exist during the research process. At the same time, based on those reports, some recommendations will be clarified for future research.

II. Reflection of the research

1. Research proposal

1.1. Research question

A research proposal is meant to persuade people that you have a valuable research project and that you have the skills and the work-plan to finish it, according to Heath & Tynan (2010). A research proposal should typically cover all the essential components of the research process and provide enough details for the readers to assess the proposed study. My research proposal had the same components as what they suggested, such as the title, goal, obligations, and justifications for picking this particular research subject.

In order to approach the problem to be researched, the researcher conducted an investigation and found out about issues related to e-waste on information pages. The issue of e-waste is always an urgent and widespread issue in society, so the resources related to this issue are extremely abundant. Current status, impacts, effects, solutions for e - waste, ... all have previous studies and proposals.

One of the emerging problems in the field of research on e-waste is the quest to find solutions to prevent their effects on the environment and human life. Prominent among a series of proposals and suggestions is the e-waste recycling method. The recycling of e-waste is justified and recognized as an effective measure to help reduce the large amount of e-waste released into the environment. This method is also studied as having great benefits for environmental protection. The best way to combat the rising e-waste problem is by recycling the basic materials from obsolete gadgets. The majority of electronic equipment is made of a range of materials, including recoverable metals. Natural resources that are still intact are preserved, and the air and water pollution brought on by improper disposal of dangerous materials is. Recycling also brought the quantity of greenhouse gas emissions on by the production of new goods.

However, when turning the matter over, a question arises as to whether e-waste recycling is entirely beneficial for the environment. In the process of recycling e-waste, there are risks and limitations that affect the environment. This statement needs to be clarified and proven.

Thus, the research question posed is "How does e – waste recycling affect the environment badly?"

Research on this issue is relatively broad and covers the whole world. Therefore, to be able to conduct research specifically and clearly, among the types of e-waste, the researcher chooses household electronic devices as the main object. This is also a popular and familiar electronic material. Thus, the scope of the research was formed.

Exploiting information and receiving quality feedback will depend on the target group of participants who will give an opinion on a given issue. The target group in the study is selected as Hanoi residents aged 20 to 50. This group of participants will be suitable and give accurate feedback about the research object, which is the recycling of electronic household waste.

From the above information, the research question is completely completed: "How does e – waste recycling affect badly on the environment in Hanoi in the view of residents aged from 20 to 50?"

1.2. Research aims and objectives

After a long process of proposing research and finding his own research questions, the researcher has also shaped himself the research objectives and aim of the research.

The primary objective or overarching goal of your research study is described in a research aim. By doing this, it serves as the center of your research and makes it clear to your readers what your study is all about. This is, whether it's a thesis, dissertation, or research paper, the study goals are usually listed in their own paragraph below the always introductory portion of a research document.

Research goals explain how your study will address a research aim, which outlines what your study will investigate. They break down your research goal into a number of more manageable components, each of which corresponds to a crucial area of your research study. Since each aim often receives its own chapter in a dissertation or thesis, practically all research objectives take the form of a numbered list.

The study has fully shown these two factors and also clarified the contents and differences of the two factors.

For the aims of the research, readers may better understand the present environmental situation under the influence of information technology development by reading research geared towards social goals that takes advantage of the negative effects of e-waste based on recycling. When recommending research-based actions, the study also tries to conserve the environment. These steps will serve as the basis for

further investigation and as a means of overcoming challenges in the effort to safeguard the environment from e-waste contamination.

The objective of this study is to determine how the environment was actually before recycling programs were implemented to decrease e-waste. An evaluation of the present environmental status of the city under the influence of e-waste recycling before and after its application will be provided by the survey and research of the current scenario with a focus on 20- to 50-year-old residents' behaviors in Hanoi. Based on actual behaviors through surveys, this research carefully examines how individuals in Hanoi handle electronic garbage and home equipment. People respond to these e-waste recycling initiatives based on their own personal experiences, therefore determining the environmental effect of recycling.

2. Literature review

A literature review examines books, scholarly articles, and papers related to the recycling of e-waste and, in doing so, offers a description, summary, and critical evaluation of these works in light of the study I was looking into. In research proposals, the literature review attempts to describe the current state of knowledge about a topic and to outline the projected contribution of the proposed research to knowledge (Knopf, 2006). The literature study gives me a summary of the sources I looked at when researching recycling e - waste. Additionally, according to Fink (2019), a literature review will show readers how your research fits into a broader field of study. A literature review may simply be a summary of important sources, but in the social sciences, reviews frequently incorporate summary with synthesis, frequently within certain conceptual categories (Fink, 2019).

The research basis is analyzed in the research paper to serve to build the problem foundation. Aspects, expertise and relevant data will be provided to answer the question.

The literature review of this study is based on previous studies across the country. In particular, the researcher emphasized the research related to the topic carried out in Asian countries. This is also the material for secondary research. These countries have similarities with Vietnam in many aspects such as economy and environment.

From the common situation that many countries face, the problems related to e-waste in Vietnam are exploited. Based on statistics from many sources, the constantly increasing numbers show that the

situation of e-waste in Vietnam is getting worse and worse. The researchers have released a table showing the increasing amount of household e-waste over the years in Vietnam. Along with that is the prediction of researchers about a dizzying increase in the amount of e-waste released into the environment. The numbers serve as a warning to society as a whole.

Collecting and showing specific numbers and graphs helps me demonstrate the urgency of the topic. I can fully demonstrate to the reader the basic background of the research and point out the research objective of the article based on these data.

Next, the status and activities related to electronic equipment recycling in Vietnam are clarified. The numbers related to the amount of e-waste in Vietnam are huge and increasing, but the percentage of e-waste being recycled is getting lower and lower. Besides, readers also learn about the current e-waste recycling process in Vietnam. The current process is still incomplete and is carried out with rudimentary machines.

The study of related literature still has some limitations. The above documents are found in many sources both at home and abroad. However, most emphasize the alarming situation of e-waste and the fact that the application of e-waste recycling solutions has not been effective. Few documents clarify the environmental impact of e-waste recycling. There are some works that mention but only mention a part of the problem. These research products will be analyzed in the secondary research section. In addition, there is no specific data on electronic equipment waste or recycling in a certain area like Hanoi. The statements and hypotheses made in the article about the situation in the region are based on studies and problems faced by many other countries and within the country. As such, these data are national in nature and are a nationwide study.

3. Research method

3.1. Primary research

Survey

The research method chosen by the author for primary research is the quantitative research method. The quantitative research in this article is based on the data collected from the survey. The survey has a combination of 20 questions. In which, some of the questions are survey questions and there are 2 Likert

scales for the participants' agreement. Regarding the content of the survey, the questions revolved around two areas, namely the adverse environmental impact of e-waste recycling from waste treatment sites and from the actions of Hanoi residents.

The questions in the survey mentioned many related contents to exploit the problems of the research topic. However, many issues have not been clarified or have general implications, making it difficult for participants to express their opinions. For example, it is mentioned that recycling e-waste will release harmful substances. Toxic substances here have not been mentioned clearly which types, how harmful they are. Maybe many people who do not even realize the harmful effects of e-waste in the process of using it will not know about this problem.

In addition, because it is a survey containing quantifiable questions, the survey has not fully exploited people's subjective opinions. People only choose the right answer based on a series of available options without commenting on the problem or actively suggesting further.

Data collection instrument

For Hanoi inhabitants aged 20 to 50, samples were selected using the practical non-probability sampling approach. The sample was picked based on how easily and conveniently the target population could be reached. The official link to the survey questionnaire was distributed to the target audiences in Hanoi who are between the ages of 20 and 50.

The survey was conducted on Google Forms, a Google extension that helps researchers conveniently create a survey and output an access link. This link is randomly sent by the researcher to acquaintances, friends, and relatives. All the people sent to the survey link are eligible for the target group. The number of responses was 100 and 100 votes were completely valid.

The process of randomly distributing surveys is still difficult because many people who receive the surveys do not access the survey link or do not complete the survey because it is long.

Moreover, the number of 100 questionnaires was conducted in a short time. This number may not be completely convincing when giving the results. However, with limited time, I hope that this number of participants is capable of giving opinions and ensuring the reliability of the database. In the future, further studies conducted with longer duration will be able to reach more people and collect more samples.

Data analysis procedures

With the data obtained from the survey, the quantitative research method allows the researcher to analyze the data through two processes, descriptive statistics and inferential statistics. Time-limited responses will be collected and categorized by questions. The answers will be coded and assigned variables for analysis. For regular questions, the answers will be analyzed by the percentage of occurrences for multiple choice questions or population for checkboxes. For the satisfaction scales, SPSS data analysis software is used to assist in the calculation of the data. The numerical data of the scale will be analyzed according to descriptive statistics to find the max, min, mean and ST values. deviation of the variable. These data play an important role in proving the accuracy of the statements.

The variables in the survey are analyzed mainly based on the prevalence and trend of mean values. Therefore, conclusions are made based solely on these assessments. There should be more thorough data analysis methods implemented to fully exploit the database.

3.2. Secondary research

As mentioned above, the analysis of secondary studies in this study is also the theoretical basis in the literature review of the article. The secondary studies used are previous studies on issues related to the impact of e-waste recycling on the environment and people's actions in regions of Asian countries. I prefer to choose these studies because I realize the great similarity between these countries like India and China and Vietnam.

Based on the content that these studies cover, I have formed five important hypotheses and this is also the research direction for the whole article. These five hypotheses are drawn from previous studies with the desire to test the authenticity in Vietnam.

In addition, studying these studies also helped me find the research methodologies of the article. Most of the above studies use analytical methods based on available data from many reputable sources or quantitative methods.

However, a limitation that exists in this section is that these studies mostly focus on analyzing the causes of e - waste processing sites. The recycling of e-waste based on the actions of individuals has not been exploited much and is not specific.

4. Project plan

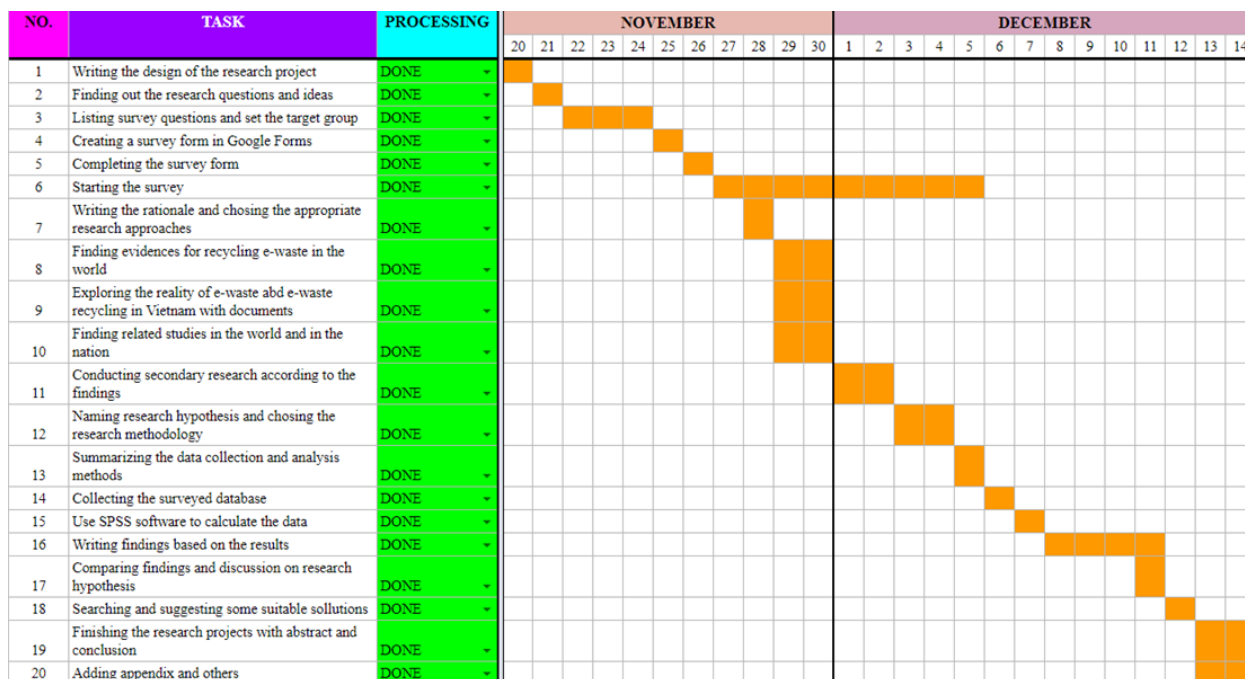| NO.	TASK	PROCESSING
1	Writing the design of the research project	DONE
2	Finding out the research questions and ideas	DONE
3	Listing survey questions and set the target group	DONE
4	Creating a survey form in Google Forms	DONE
5	Completing the survey form	DONE
6	Starting the survey	DONE
7	Writing the rationale and chosing the appropriate research approaches	DONE
8	Finding evidences for recycling e-waste in the world	DONE
9	Exploring the reality of e-waste abd e-waste recycling in Vietnam with documents	DONE
10	Finding related studies in the world and in the nation	DONE
11	Conducting secondary research according to the findings	DONE
12	Naming research hypothesis and chosing the research methodology	DONE
13	Summarizing the data collection and analysis methods	DONE
14	Collecting the surveyed database	DONE
15	Use SPSS software to calculate the data	DONE
16	Writing findings based on the results	DONE
17	Comparing findings and discussion on research hypothesis	DONE
18	Searching and suggesting some suitable sollutions	DONE
19	Finishing the research projects with abstract and conclusion	DONE
20	Adding appendix and others	DONE

Figure 1. Project plan

It is crucial to have a strategy in place before starting a research assignment so that the work is done in a methodical and efficient way. I can specify my objectives and the time necessary to accomplish them with the aid of a plan. A project plan offers a vision for what the project will achieve. Additionally, it arranges the job. Having a project strategy helps me stay focused and avoid multitasking.

In order to have a specific plan and roadmap for the research, I made a detailed plan with a specific time to carry out each work. This excel is a combination of a detailed plan with a Gantt chart to track work progress and work schedule. The work is arranged in a logical and logical sequence to ensure that the research sections keep the connection and harmony in each period. The time required to complete the tasks is also serialized or I can make the most of the time so it does not go to waste.

Thanks to this plan, I was able to complete all the tasks on time. At the same time, the efficiency of completing tasks is maximum. In many cases, the planner is also my progress tracker and performance review. After completing each task, I will review and evaluate the completion of each task and record it in

the plan. After completing the research process, the outstanding issues in the tasks will be reviewed and further analysis conducted. Thus, research results will be guaranteed.

5. Presentation of result

I conducted primary research as well as secondary research using a variety of methods. As a result, my research has certain drawbacks. Every research approach is applied systematically, with each stage involving a plan, analysis, and assessment. My study has produced some excellent findings.

Primary research

After getting 100 responses, I screened, coded, and analyzed the resulting data source. This data source has produced many results for the research topic. After conducting the paint research process with the survey form and database, some conclusions are drawn as follows:

- E-waste recycling sites such as household appliances include legal waste disposal sites and unofficial e-waste treatment centers that cause leakage of waste, release toxic substances and heavy metals.

- E-waste recycling in these areas still has many downsides and causes negative impacts on the environment such as soil, air and water pollution.

- People who do not know how to handle e-waste for recycling result in a great loss of fuel resources

- Inconsistency recycling actions reduce the efficiency of the recycling of these materials

- E-waste recycling limits the development of environmental technology or industry

Secondary research

I have done secondary research based on searching and referring to a large number of sources such as research studies, articles and journals, etc. These sources provide me with a wealth of knowledge about the subject. field e - waste recycling. And after filtering and analyzing, I have drawn the following five hypotheses for my research paper:

- Recycling releases toxic substances into the environment at e – waste processing sites

- Unofficial e-waste recycling units lead to damage to the environment

- People do not have a proper way to recycle e-disposal which leads to loss of natural resources

- People's recycling action is still superficial, leading to low recycling efficiency

- Recycling e – waste limits the development of environmental technology or industry

6. Role of the tutor in research

This is my second time doing a research paper. Not much, but I still lack a lot of experience. However, my lecturer - Mr Tung guided me from the beginning, he was also the one who taught me the first research subject "Managing a successful computing project". He is one of the lecturers specializing in this field of study. He is also very open with students and immediately answers questions that students ask.

First, in class, Mr. Tung teaches in great detail, presenting theories and applications that he knows to students. He creates small tasks in the classroom for students to follow and complete the milestones he has created. He also suggested that students create their own gantt chart to arrange the time for the part they do.

Mr. Tung analyzed the children's tasks, the advantages of the project so that he could learn from them and include them in his report. In addition, the teacher also analyzed the weak points for us to complete the work and correct the mistakes.

With your suggestions, I expect a D (Excellent) for my report.

III. Lesson learnt, mistake and improvement

1. Mistake

Starting from the time I was assigned the project, I spent a lot of time searching for research data such as: research topic, analysis of related problems, proof statistics, ... Because it takes time to read and search, the preparation of the research topic is quite small, so the selection of the topic with the reference resources is not diverse, leading to the weak argument.

After searching for research resources, I immediately wrote a schedule for my project. Including the items that need to be done and the deadline to submit, although the plan is quite detailed, but when starting to work, there have been some problems. Some documents when reviewing can be used in the article, but it is not evenly questioned and not authentic enough for the problem to be proven, which makes me have to continue searching for documents which is very time consuming.

Second, in my class, Mr. Tung - my lecturer gave a demo to critique and give feedback on what he had learned. I submitted late and did not receive feedback from my lecturers and suggestions on my work. This results in slower start and finish times than expected, resulting in compromised quality of expertise.

Furthermore, my secondary research method has many limitations. From collecting survey information to providing analytical information for the project, I did not create a form to collect accurate information, collecting information still has many problems, such as people not knowing too much. Regarding English, maybe they have slow access to the language, others are too young to understand what the survey is about, so the collection of information is a bit general. All of the above affects a lot of secondary research papers, the information that is not close to the actual analysis is misjudged.

Finally, due to limited research knowledge, the research I wrote is not convincing to the readers. With limited vision and limited time, writing essays is also difficult. Not only that, although the preparation time was carefully arranged, when it started, it was different from what was planned. The sources of information that the author conducted observations were limited. Moreover, the limited information source made my observation process difficult.

2. Lesson learnt and improvement plan

2.1. Research proposal

To prevent wasting time, I will carefully consider my research plans to make sure they are feasible. I will attentively carry out the project after choosing the study subject. I will gain knowledge of new data sources, enhance my ability to understand what I'm reading in English, and combine this with a Google Scholar search strategy to quickly and thoroughly assess my results. It is my turn. Additionally, I'll try my hardest to finish my coursework on time and according to plan.

Additionally, I followed the ideas made by the lecturers, which included some suggestions and subjects for reference, before removing my own research proposals. This was slightly helpful for me in choosing the study topic.

Templates

Research Proposal Form

Student name	....	Student number	....
Centre name	....	Date	....
Tutor	....		
Unit	....		

Proposed title   ....

Section One: Title, objective, responsibilities
Title or working title of research project (in the form of a question, objective or hypothesis):
Research project objectives (e.g. what is the question you want to answer? What do you want to learn how to do? What do you want to find out?):

Section Two: Reasons for choosing this research project
Reasons for choosing the project (e.g. links to other subjects you are studying, personal interest, future plans, knowledge/skills you want to improve, why the topic is important):

Section Three: Literature sources searched
Use of key literature sources to support your research question, objective or hypothesis:

Section Four: Activities and timescales	
Activities to be carried out during the research project (e.g. research, development, analysis of ideas, writing, data collection, numerical analysis, tor meetings, production of final outcome, evaluation, writing the report) and 'v durations:	

Figure 2. Proposal Form

2.2. Literature review

This is one of my first research papers so in some of the topics I have not been very close to and have no experience in analyzing this field. In the research process: searching for topics related to requirements, relevant documents for documents, analysis and problem identification... still difficult for me. Through these shortcomings, I had the opportunity to learn from my research and draw some lessons:

- Thoroughly plan the research project such as creating a reasonable schedule, completing the tasks in time, making statistics of relevant and helpful data for the essay, preparing the plans when they are overdue or not. Right process.

- Avoid delay as it will affect the research process. Follow the steps carefully to avoid unnecessary mistakes.

- Especially, collect detailed survey information and draw out the right problems to analyze in accordance with reality.

2.3. Participants

After creating a survey to collect the necessary information, I learned a few things. Here are some fixes and suggestions for developing the above problem in the near future:

- People surveyed should be of different ages. That means if people have a different age they will have different thoughts, each person has a field, a profession and has more diverse responses to the survey. However, this needs to filter some people when they are not knowledgeable enough to the field they are talking about, which will lead to inaccurate results.

- When creating a survey, you should include detailed questions along with reasonable choice questions. In this article, I mostly use pre-selected answers, in later articles I will have questions that allow the surveyor to give his or her own opinion because each person has their own opinions.

For example:

I will create the question "If you could directly handle e-waste, what would you do? Why?". This question will directly reflect the writer's point of view more clearly. From there, I will follow up and analyze their data more accurately.

2.4. Survey

In order to ensure the quality of research for the topic, I have consulted related groups of subjects and have the ability to provide useful information for the research. Because when qualified, the answer quality will also be accurate and qualitative.

For example:

My research project on the issue of e-waste, so I immediately thought of the center that is often exposed to e-waste regularly, which is the Hanoi area. According to People's Daily (August 8, 2020), the total volume of daily-life solid waste generated in Hanoi is estimated at 7,000 tons/day. Although there are 17 waste treatment zones in the planning, Hanoi has only 3 operating places: 'Nam Son' Waste Treatment Complex, 'Xuan Son' Solid Waste Treatment Area and 'Cau Dien' Waste Treatment Area. . So I narrowed the scope to only the Hanoi area along with the age of most contact and waste treatment, they will give the best opinion and get the right results.

Figure 3. 'Nam Son' Waste Treatment Complex

2.5. Observation

Due to limited time, direct observation is not possible. I will learn from it next time. Next time, the first thing I do is make a list of places to survey to make sure I don't have to go around wasting time. When I arrive, i will make an appointment with the head of the field to get permission. This makes it convenient for both parties and does not cause trouble for people around. Moreover, when observing I will survey and give them some questions on the spot. So, all preparation before doing is very necessary, even the necessary steps.

At the same time, it is also important to observe the process you do. After completing the small tasks, I will check to see if the task is complete with the requirements for the assignment, is misspelled, is missing an appendix or is missing something. If there is, I will immediately add it. This repetition makes my essay more accurate.

2.6. Secondary research

I had to read dozens of research articles online, on Google Scholar to serve the research and filter out the articles that match the topic. Next, I would have to take the essentials and apply them to my essay. Furthermore, it not only helps with the research project, but also accumulates reading skills, skimming and research experience.

I will provide a few suggestions for improvement:

- Make sure your search and research objectives are clear. I can then reduce the volume of data I need to search. Additionally, skimming and scanning techniques may be used to speed up research while still obtaining crucial information.

- Search for content in reputable sources like articles and essays rather than unconventional sites like blogs. However, not all essays and articles are beneficial. Look for freshly released content.

2.7. Project plan

I need to be informed about the project's status so that I may update the plan as quickly and effectively as possible. I gain experience by participation in additional initiatives. In order to create the most intricate project plan, I need to get a lot of expertise in order to foresee unforeseen circumstances.

It is crucial to get rid of items that are time-consuming and useless in order to keep the process from being impacted.

IV. Conclusion

This article looked at how well the research techniques used to achieve the goals of a computer research project worked. I analyzed the lessons learned and offered prospective changes based on the results for each step of our research process, including suggestions, research methodologies, findings presentation, and recommendations. conclusions and research. After doing this study, I now have a better grasp of how to conduct research efficiently.

V. References

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