

The Documentation of COVID-19 Pandemic in Malaysia using 2D Animation

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Abstract— World nowadays is being attacked with a corona disease which has been named as COVID-19 by World Health Organization. COVID-19 killed millions of people around the world and Malaysia. Some of the people are still lack of information about how dangerous this disease and disregard about this matter is. Nowadays there are Standard Operating Procedure (SOP) that has been made by government in Malaysia. The objectives of this project are to produce three 2D animation videos as the documentation approach for historical archive of COVID-19 in Malaysia and lastly to evaluate the effectiveness of the 2D animation videos as the documentation approach used for documenting COVID-19 in Malaysia as historical event archive. These animated series are created by first using Adobe Illustrator to create the illustrations, then moving on to Adobe After Effects to create the animation based on the illustrations, and finally Adobe Premiere to create the videos by combining all the animations. All three animated series will be uploaded on YouTube channel as the platform of storage and viewing. ADDIE Model is the methodology used by researcher to develop the project. The evaluation of the animated series was carried out online via Google Form with the total of 50 respondents. Based on the survey, 70% from the respondents were satisfied with the information provided in the animated series.

Keywords—COVID-19, Malaysia, historical archive, 2D animation, animated series

I. INTRODUCTION

Previously, information was only delivered through television and a few websites on the internet. People visiting a website must read through the entire article, which contains so many bombastic terms that they are unlikely to grasp the entire information correctly. The video explainer in 2D animation is crucial in assisting people in gaining more precise information about the entire journey of this COVID-19 in Malaysia. Furthermore, this 2D animated video explainer is suitable for children and the baby boomer generation. According to the World Health Organization website, the COVID-19 virus spreads through the droplets of saliva that come out of the nose of an infected person who coughs or sneezes. To avoid being infected by this virus, you should wash your hands frequently or use an alcohol-based hand sanitizer, and you should not touch your face. Public health professionals from all across the world are working to identify, monitor, and contain a new virus that appeared in Wuhan, China, in early December 2019. The

sickness caused by the COVID-19 virus was given that name by the World Health Organization [1], which alludes to the virus's kind and year of genesis. The World Health Organization has declared the virus a pandemic. Coronaviruses can be found in a wide range of animals and can cause serious illness. Since the turn of the century, two other coronaviruses have infected humans, causing the 2002 SARS outbreak and the 2012 MERS outbreak. According to scientists, this new virus first became capable of jumping to humans in early December. Initially, it appeared that the virus infected people at a Wuhan seafood market and then spread. However, one study of the disease's early cases, published on January 24th, discovered that the first patient to become ill had no business contact. Nonetheless, experts are attempting to trace the outbreak's origins ([2]). This project aims to clearly explain all phases of the pandemic, as well as the government's SOP, to all generations in Malaysia. This 2D animation focuses on the COVID-19 pandemic in Malaysia beginning with the first outbreak and includes three animated series. Therefore, the objectives of this study are as follows:

- To produce three 2D animation videos as the documentation approach for historical archive of COVID-19 in Malaysia.
- To evaluate the effectiveness of the 2D animation videos as the documentation approach used for COVID-19.

A. Problem Statement

There is no proper medium to deliver the history of COVID-19 in Malaysia as information are often spread by news in television and also newspaper or social media. Moreover, people in Malaysia are still not practicing to all the Standard Operating Procedure (SOP) that is given by government, hence this project wants to bring the awareness towards everyone.

II. LITERATURE REVIEW

To advertise a business among its audience, animation effectively blends thoughts and feelings. Animation is appropriate for a variety of businesses, whether it's for a DVD or a detailed animated feature. Nonetheless, it is 2D animation that has made animation ubiquitous during the last two decades.

It covers the creation of figures and their evolution in a two-dimensional aesthetic environment, as the name suggests. Furthermore, even in the age of 3D, this old sort of activity continues to dominate the market. Understand the 'Why' With the advancement of technology, 2D animation is no longer limited to celluloid sheets. 90% of today's liveliness is created with computer-generated graphics. The technique entails the proper blending of craftsmanship and innovation at a high level. Along these lines, this particular form of liveliness is still a central component of several segments. The gifted specialists go above and beyond to curate animate and emotions in real time. [3]

A. Case Study

1) Bagaimana COVID-19 Merebak? [4]



Figure 1: Bagaimana COVID-19 Merebak?

There is no explanation for the pandemic COVID-19 history in Malaysia in this animation by MyHEALTHKKM. Scrolling all of the videos on the YouTube channel, I noticed that there is no animation on the historical background of COVID-19 in Malaysia. Many 2D animation video explainers on this channel about the pandemic that Malaysia has been dealing with since the first outbreak of the virus, but the channel does not provide a storyline on all Movement Order phases in Malaysia for future reference. The animation and drawing in this video are spectacular, and it may appeal to a wide audience.

2) Animasi Apa itu COVID 19? [5]

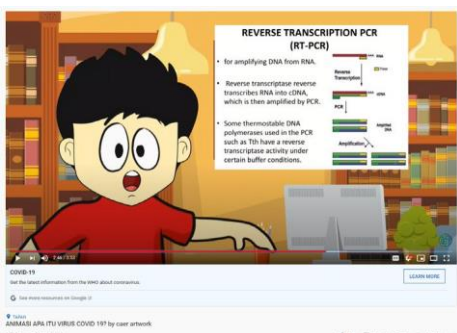


Figure 2: Animasi Apa itu COVID 19?

The explanation is difficult to understand because it shows a picture with complicated terms. It is also unappealing because the animated video is only a boy explaining COVID-19.

Children may become bored with this animation because it only uses pictures to explain because there isn't much animation and it's difficult to get information. On the plus side, the voice in this video is very clear to listen to, and audiences can clearly understand the information. Additionally, the drawing and colors used in this video are beautifully done, despite the fact that there is not much animation contains in that video.

3) Raya Covid-19 [6]



Figure 3: Raya Covid-19

The overall drawing in these animations is simple and unappealing for children used in this video are not appropriate for children. Furthermore, colors in this animation are too unambiguous, which may cause audiences to lose interest in it. Furthermore, despite the fact that the animation appears simple, the storylines are difficult to grasp. Viewers may become confused while watching this animation because the way it was created is difficult to understand due to the untidiness of the drawing. The sound used in the video is difficult to hear because it is confused and unprofessional.

4) How Corona Virus Started? [7]



Figure 4: How Corona Virus Started?

The animation in this YouTube video is not engaging for viewers to watch. People may misinterpret the storyline because of the way it is written. Furthermore, the storyline is somewhat exaggerated, making it difficult for viewers to follow. The disadvantage of this video is that children may be puzzled about how this virus began because the storyline is not as stated in the title. Moreover, it only explains how the Coronavirus began, and it is not as detailed as it should be, and there is insufficient information that people can obtain from this YouTube video.

III. METHODOLOGY

The ADDIE Approach is a project development methodology used by the researcher. The ADDIE Model can help to arrange the project's flow and make it run more smoothly by organizing the methods one by one before beginning the project. This method was chosen by the researcher because it is appropriate for instructional design, which is appropriate for this project because it must be planned step by step. It comprises of a step-by-step process to follow during the project's development.

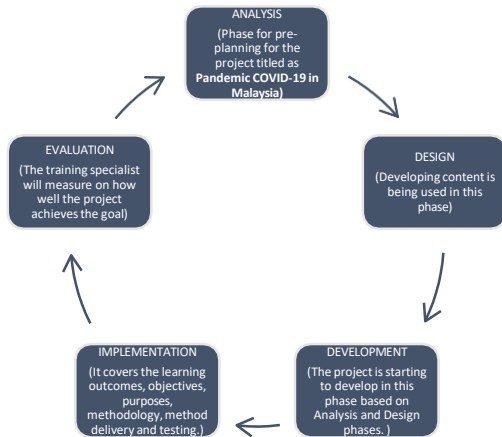


Figure 5: ADDIE Model

1) Analysis Phase

Analysis is a pre-planning phase for the Pandemic COVID-19 project in Malaysia. Problem statements are clarified during this phase. The researcher must establish a project goal as well as a few objectives to achieve after the project is completed and evaluated by respondents. Furthermore, research must be conducted during this phase to identify the project's design, goals, purposes, and objectives, as well as the target audiences that are appropriate for the project. Content must also be identified, as well as the strategies.

2) Design Phase

This phase has begun with the creation of a storyboard. Several sketches are being produced in order to determine the best interface for 2D animation. For audiences to watch, the ideas, storylines, and designs must be interesting and understandable. The design will be focused on clearly telling the storyline in order to ensure that the information is delivered successfully. The narration will be added to make it easier to understand, and the color palettes chosen will be very cheerful in order to attract audiences. Everyone will be able to read the font size. To avoid viewer confusion and misunderstanding, the storylines will be clearly explained.

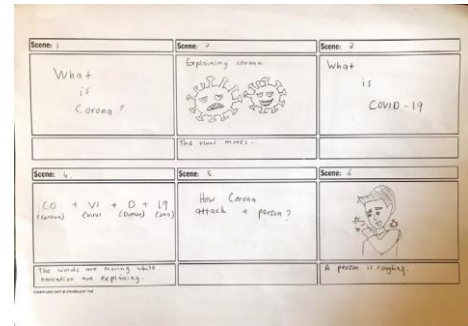


Figure 6: Storyboard

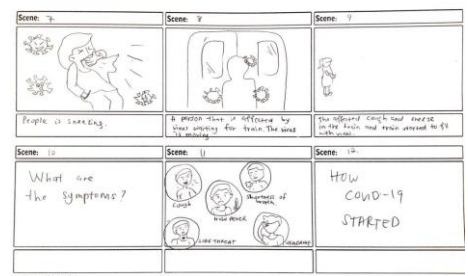


Figure 7: Storyboard

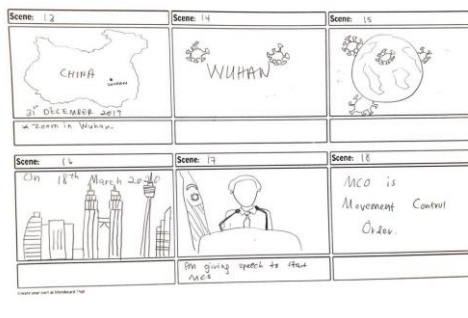


Figure 8: Storyboard

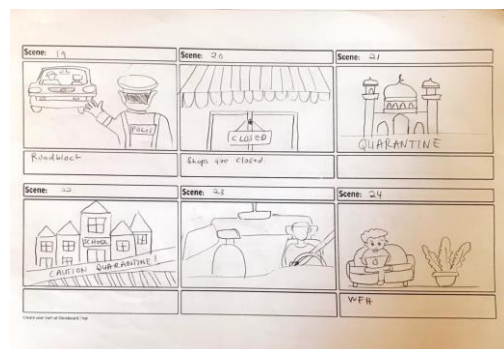


Figure 9: Storyboard

3) Development Phase

In this phase, the project is beginning to take shape based on the Analysis and Design phases. The developer begins to illustrate using Adobe Illustrator and Adobe Photoshop, referring to the storyboards created in phase II. To ensure that the project runs smoothly and on time, the developer must complete at least 70% of the prototype. In order to use as a final project, problems must be solved during this phase. In order to avoid mistakes, concise instruction and review are required during this phase. Furthermore, some content and corrections may be required if necessary.

A. Illustration

This 2D animation project on Pandemic COVID-19 in Malaysia contains illustrations. All the illustrations in this project were created from scratch in Adobe Illustrator. It is the first step in beginning of this project by using a storyboard as a guide. This animated series provided simple illustrations yet powerful information. The theme is to keep it as simple as possible so that it can deliver information throughout the entire series.

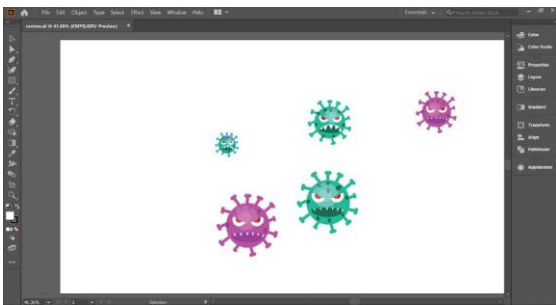


Figure 10: Adobe Illustrator



Figure 11: Adobe Illustrator

B. Animation

After all of the illustrations have been completed, the animation will be created. Adobe After Effects is used to create the animations. All of the animations will be edited step by step to create a smooth storyline that allows viewers to easily grasp the information. Furthermore, in keeping with the minimalist theme, the developer will use minimal animation but a strong

presentation of the context, along with the topic, Pandemic COVID-19 in Malaysia.

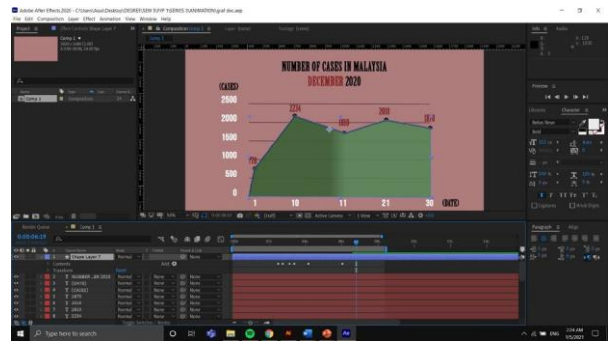


Figure 12: Adobe After Effects

C. Video Editing

When the animations are finished, the developer will combine them all in Adobe Premiere. The storyboard is very important in this step to ensure that all of the storylines are perfectly combined and that the flow is smooth as shown in the storyboard. In this phase, all the music backgrounds, sound effects and also narrators will be added in order to make it more interesting and can attract viewers. There will be a learning process if you create your own project at first, but it will be very rewarding. Video editing in my project is equivalent to applying the final coat of paint to a room, and the time spent learning the fundamentals will be well worth it. This is the stage at which your project work truly comes to life.

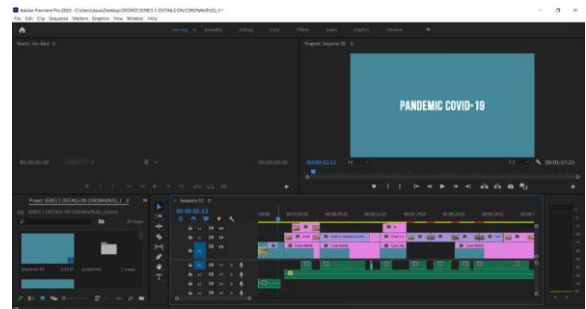


Figure 13: Adobe Premiere for Series 1

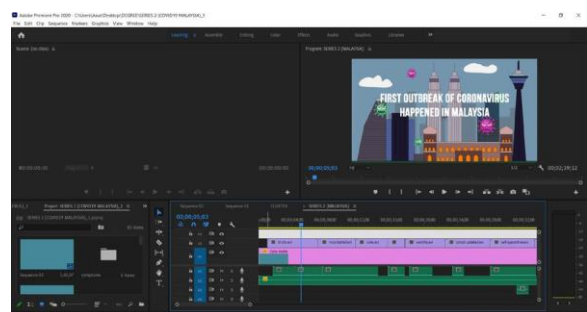


Figure 14: Adobe Premiere for Series 2

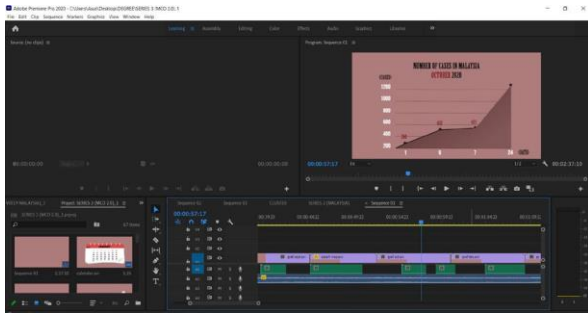


Figure 15: Adobe Premiere for Series 3

4) Implementation Phase

It is a phase in which the developer must ensure that the viewer for this project completely understands the product. The developer uses the YouTube platform to promote the three animation videos as well as to gain interest in the project. YouTube has been picked as a developer because it has a large audience. Because most people nowadays watch using YouTube, it is the easiest option to maintain it as historical footage that can be updated from time to time as the pandemic continues.

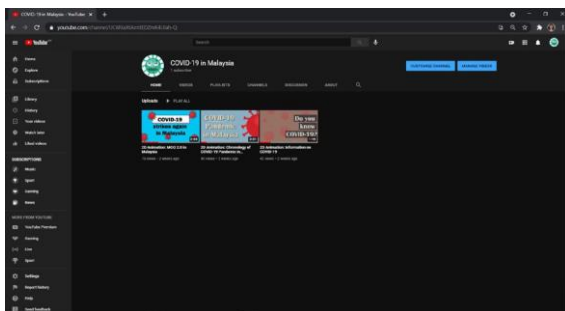


Figure 16: YouTube channel

5) Evaluation Phase

The systematic determination of merit, significance of a learning or training process by using criteria against a set of standards is known as evaluation. At this point, the entire project has been completed and is ready for audience testing. The training specialist will assess how well the project achieves its objectives. This includes the four phases that preceded this one. An online survey has been conducted through Google Form with 50 respondents in order to get feedback.

IV. PROTOTYPE

The first stage of the prototype development process for these three 2D animated series is covered in this chapter. It consists of several stages, including planning, design, development,

implementation, and evaluation. Furthermore, this chapter focuses on the anticipated limitations as the process is developed. There are three series of 2D animation on COVID-19 Pandemic in Malaysia that has been uploaded in YouTube.

A. Prototype Design



Figure 17: Series 1 (Information on COVID-19)



Figure 18: Series 2 (Chronology of COVID-19 Pandemic in Malaysia)

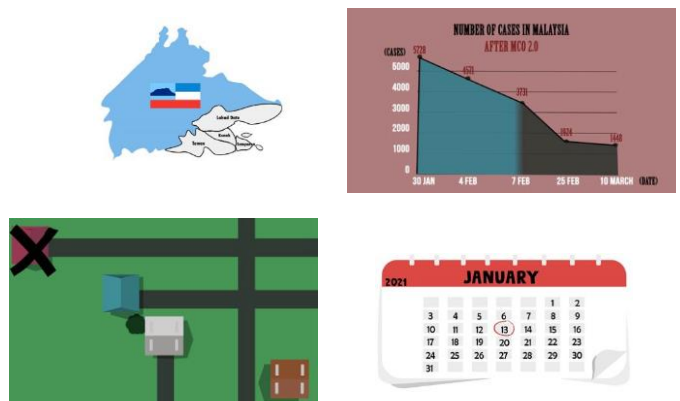


Figure 19: Series 2 (MCO 2.0 in Malaysia)

V. TESTING AND RESULT

A test session has been scheduled for April 2021, and all animated series have been uploaded to YouTube for audience testing. Developer were able to gather 50 individual participants for this test session. The target audience for this 2D animation of the COVID-19 Pandemic in Malaysia is Malaysian teenagers and adults with internet access. The goal of this testing session is to determine whether or not this animated series is achieving the project's target and purpose from the perspective of the audience, and to improve the project based on viewer feedback.

A. Survey Result

The questionnaire survey was administered to a random sample of local teenagers and adults with internet access. The results of this survey assist developers in supporting the framework created for future enhancement and modification. A sample of the questionnaire was administered regarding the animated series on the COVID-19 Pandemic in Malaysia. The graphs and pie charts below show the outline and explanation of the questions that were asked.

Based on the above results, half of the respondents strongly agreed that the information provided in the animated series was sufficient, indicating that the animated series successfully delivered information on the COVID-19 Pandemic. 18 votes were cast in agree, while 7 votes were cast in neutral.

8. Do you agree that the animation series on Covid-19 pandemic, documented the history happening in Malaysia?
50 responses

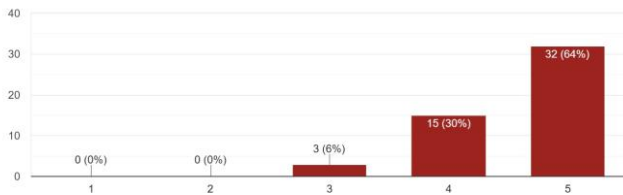


Figure 20: Result of agree documentation of the history

According to the graph above, the majority of respondents (64 percent) strongly agreed that the animation series on the COVID-19 pandemic documented the history that occurred in Malaysia. This means that the animated series was a successful project in terms of documenting the pandemic for Malaysians. 30 percent of respondents answered agree for this question, while 6 percent voted neutral for their agreement.

9. Do you think the information provided in the animated series are sufficient?
50 responses

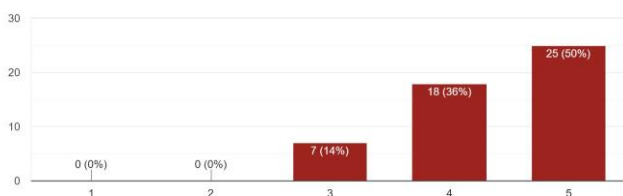


Figure 21: Result of information provided

10. Do you think the illustrations of the animated series are suitable for all ages?
50 responses

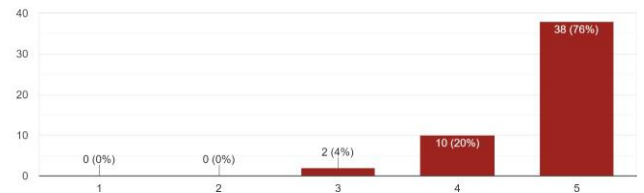


Figure 22: Result of suitable for all ages

A total of 76 percent of respondents strongly agree that the illustrations used are appropriate for all ages. This means that the developer was successful in using acceptable illustrations in the animated series that can be viewed by people of all ages. Meanwhile, 20 percent of responses come from agree, and 4 percent of respondents agreed with neutral.

12. How satisfied are you with the information provided in the animated series?
50 responses

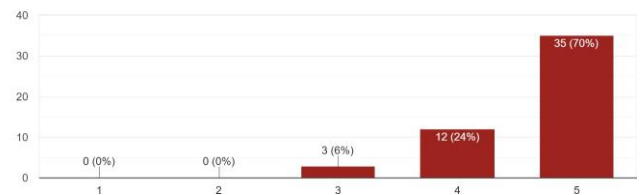


Figure 23: Result of the satisfaction of the information provided

According to the bar chart above, the majority of respondents are very satisfied with the information provided in the animated series. In conjunction with that, based on the survey results, this animated series has successfully provided information to audiences. There was a total of 12 respondents who voted agree for satisfaction and neutral with this animated series.

14. Do you agree this animated series can help in increasing the level of awareness among Malaysian?
50 responses

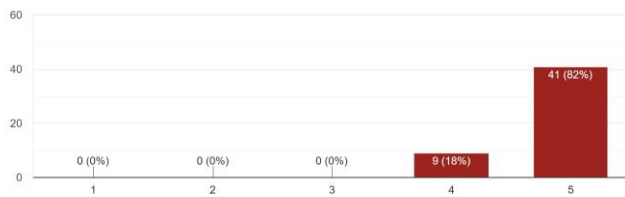


Figure 24: Result of increasing the level of awareness using animated series

According to the bar chart above, 82 percent of respondents strongly agreed that this animated series can help raise awareness among Malaysians. This demonstrates that this animated series has a positive effect on Malaysians in order to flatten the curve. The remaining 18 percent of respondents answered agree, which is still a high level of agreement.

VI. CONCLUSION AND RECOMMENDATION

A. Conclusion

The documentation of COVID-19 Pandemic in Malaysia is a 2D animation designed to provide accurate information on the pandemic in Malaysia. A 2D animation consists of three series on the COVID-19 Pandemic in Malaysia, with the first series embodying facts about Coronavirus, the second series depicting the first Coronavirus outbreak in Malaysia, and the final series explaining the second wave of Movement Control Order in Malaysia. The documentation of COVID-19 Pandemic in Malaysia using 2D animation portrays a simple yet full of information that viewers can get through the whole series in the simplest way. The 2D animation documentation of the COVID-19 Pandemic in Malaysia portrays a simple yet full of information that viewers can get through the entire series in the simplest way. The 2D animation of the COVID-19 Pandemic in Malaysia is an innovative platform for documenting Malaysia's history.

B. Future Recommendation

For future improvements and enhancements, the animated series COVID-19 Pandemic would encourage the inclusion of new topics that would provide more information to viewers not only from the same country but from other countries. Topics such as the global pandemic can be considered for inclusion in the animated series in order to reach audiences from all over the world. Furthermore, updates on the current pandemic can be documented from time to time in order to attract more viewers to the YouTube channel for the animated series. The animated series on the COVID-19 Pandemic has a lot of potential to reach a wider audience if it provides more information than just in

Malaysia. Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

VII. REFERENCES

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