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DEVELOPMENT OF A WEB-BASED CYBER COUNSELING MODEL FOR GUIDANCE AND COUNSELING SERVICES AT SMA NEGERI 1 BAYUNG LENCIR

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Abstract. This study aims to develop a web-site-based cyber counseling model for Guidance and Counseling services at SMA Negeri 1 Bayung Lencir. This research is a development research or Research and Development (R&D) with the Borg and Gall development model. The subjects of this study were 11th grade students of SMA Negeri 1 Bayung Lencir in the 2024/2025 school year. The results showed that the needs of students in the use of e-counseling media were 44% who wanted to use the web site as a service media. Based on the results of the study, the data obtained from the product feasibility test results by material experts amounted to 88% in the very feasible category and by media experts amounted to 98.6% in the very feasible category. The results of the product feasibility test based on student responses obtained data totaling 94.4% in the very feasible category and the response of the counseling teacher obtained data totaling 90% in the very feasible category.

INTRODUCTION

The changing times demand that humans adapt to current developments, especially in the fields of science and technology. These advancements have a broad impact, including in the field of education. In the modern era, the need for high-quality human resources has become crucial as the primary asset for a nation to grow and compete in various sectors such as development, economy, and education (Suhardita et al., 2024). A conscious and planned effort to create a learning environment and learning process that can enhance student participation. Its purpose is to help them develop their potential to possess spiritual strength, self-control, good character, intelligence, noble morals, and the skills required for themselves, society, the nation, and the state. According to Pristiwanti et al (2022) based on a systems approach, education is a unity consisting of various interconnected elements. Its purpose is to achieve the goals of education, which is to transform input into output. Education needs to be managed properly in order to function as expected (Sukendra et al., 2023).

Education according to Nurkholis (2013) is an activity that has a specific purpose or goal, aimed at developing human potential, both as individuals and as members of society as a whole. The same thing is stated by Irawan (2023) education is a learning process that is

carried out intentionally, planned, and carefully, and is passed down from generation to generation through teaching. The purpose of education is to empower students, help them develop their interests and talents, so that they become individuals who are devout to God, of noble character, creative, knowledgeable, independent, innovative, and able to contribute to the nation while being responsible for the trust given (Purnadewi & Widana, 2023).

Guidance and Counseling (BK) services play an important role in the development of students' personalities. Two the function of Guidance and Counseling services in educational units is to assist students in understanding themselves and their environment, support personal growth and adjustment, channel educational and career choices, prevent problems, improve and maintain conducive personal conditions, develop optimal potential, provide advocacy against discrimination, and assist educators in adapting to the educational needs of students (Peraturan Menteri Pendidikan dan Kebudayaan Nomor 111 tahun 2014 Tentang Bimbingan dan Konseling pada Pendidikan Dasar dan Menengah). The goal is to help students achieve maturity and independence in their lives, as well as to fulfill developmental tasks covering personal, social, learning, and career aspects comprehensively and optimally (Tari et al., 2020). The same is stated by Arikunto (2012), that guidance and counseling (BK) services aim to help students better understand themselves, recognize the situations around them, and overcome various difficulties related to self-awareness. In addition, guidance and counseling services also function as efforts for the prevention and resolution of problems faced by students.

The role of guidance and counseling teachers (BK) in schools is very important. According to Aisyah (2018) guidance and counseling play an important role in schools, aiming to help students understand themselves, including their strengths and weaknesses. This process requires knowledge, specific skills, and an appropriate personality. Although not directly teaching, guidance and counseling teachers provide guidance to help students overcome issues that disrupt their learning development. Through this service, it is hoped that students can face challenges, fulfill developmental tasks, and shape a proud national character. Petrus & Sudibyo (2017) state that in general, cyber counseling is defined as a professional counseling practice conducted when the counselor and the client are in different locations, using electronic media such as the internet to communicate. This definition includes various platforms, such as websites, email, chat, and video conferencing. With this method, communication between both parties becomes faster, more efficient, and more convenient.

Prasetiawan (2016) state that online counseling is a professional counseling practice conducted when the client and counselor are in different locations, using electronic media via the internet to communicate. This allows schools to utilize the internet and related services, making online counseling an inevitable form of counseling. According to Pasmawati (2019) cyber counseling is a virtual counseling model conducted through the internet, where the counselor and client do not meet physically at the same time and place. Furthermore, cyber counseling has proven to be very effective for students who are unable to meet in person at school, allowing counselors to continue providing support through online platforms. The use of social media such as WhatsApp and other applications facilitates the counseling process. Cyber counseling services can be conducted through various media such as websites, chat, email, and video conferencing via the internet. Given

the rapid advancement of technology today, with features like chat and virtual reality, it greatly assists guidance counselors in providing online services.

Hidayah (2020) state that the advantages of website-based cyber counseling include a user-friendly interface design, making it easy to operate, direct access to videocall services without going through a complicated registration process, the ability to communicate without distance limitations, including with parties abroad, clear sound and visual quality, as well as a recording feature that allows counseling sessions to be saved and replayed if needed. According to Arizona et al. (2022) cyber counseling has the advantages of a fast process, flexible timing that allows counseling to take place outside of learning hours, and increased confidentiality and closeness between students and guidance counselors through effective communication. However, despite the advantages, cyber counseling services also have limitations. According to Ifdil, I., & Ardi (2013) the limitations of online counseling lie in its dependence on media support; if the media functions well, counseling can proceed smoothly, but if issues such as power outages, connection disturbances, or device malfunctions occur, the counseling process may be halted or even impossible to carry out.

Based on the above opinions, it can be concluded that cyber counseling is a form of professional counseling conducted virtually, allowing communication between the counselor and client in different locations through the internet by utilizing platforms such as websites, email, chat, and video conferencing. This makes it easier, faster, and provides an efficient and flexible solution without time or place limitations. However, cyber counseling also has limitations, such as its dependence on media, potential technical disturbances like power outages or connection issues, a lack of skills among counselors, minimal formal training, and challenges in reading facial expressions and understanding the client's emotions. Therefore, although it cannot replace face-to-face counseling, this model can still enhance professionalism in counseling services

METHOD
Type of Research
This study applies the research and development method, commonly known as the R&D (Research and Development) model. This type of research aims to create new products or update old ones to make them more effective for use in the school environment (Gay, 1981). The model that will be applied is the Borg, W. R., & Gall (1983) model, which states that development research in education consists of ten steps. These steps include: (1) information gathering, (2) planning, (3) development of the initial product, (4) initial field testing, (5) revision of the initial product, (6) main testing, (7) revision of the product based on main testing, (8) operational testing, (9) revision of the final product, and (10) dissemination. However, due to time constraints, the researcher decided to limit the research procedure to seven steps until product revision

Research Subjects and Data Collection Techniques
The subjects of this research are eleventh-grade students at SMA Negeri 1 Bayung Lencir. The product trial involved 35 students. This development research was carried out in the first semester of the 2024/2025 academic year. Data collection in this study was carried out through interviews, questionnaires, and Focus Group Discussions (FGD). Interviews were conducted with the Guidance and Counseling Coordinator at SMA Negeri 1 Bayung Lencir to gather information regarding the utilization of counseling services and the need for e-counseling media to support the delivery of these services. The types of questionnaires

used included a counseling services utilization questionnaire, a media needs analysis questionnaire, a media feasibility validation questionnaire, and a student response questionnaire. The validation of the instruments in this study involved validation by subject matter experts and media experts. The material validation was conducted to evaluate the content and relevance of the information presented in the website-based cyber counseling, including the accuracy of the material, its alignment with user needs, and its effectiveness in delivering counseling messages. Meanwhile, the media validation was carried out to assess the feasibility of the website-based cyber counseling media, covering aspects such as design, functionality, ease of use, and user interaction.

The FGD focused on discussing the evaluation and benefits of the developed media, based on several product feasibility criteria as follows: 1) the website's appearance is attractive and professional, 2) the layout of visual elements is consistent and easy to understand, 3) the website is easily accessible and functional across various devices, 4) the website navigation is intuitive and user-friendly, 5) interactive features (chat, Virtual) work well, 6) user data is well protected (encryption, secure login), and 7) no crashes or errors during use. As for the feasibility of the material, the following criteria were used: 1) the website consistently provides accurate and timely counseling services, 2) counselors respond quickly to student inquiries and counseling requests, 3) counselors provide a sense of safety and trust to students during the counseling process, 4) the website and counselors understand students' specific needs and provide personalized attention, 5) the website has a professional appearance, is easy to access, and its features support a comfortable counseling experience.

The data analysis techniques in this study include both quantitative and qualitative data analysis. The analytical methods used are adjusted according to the type of data and the stages of the cyber counseling media development process conducted.

Table 1. Classification of Average Percentage Scores for Material and Media Feasibility of the Developed Product

Classification	Rating
Excellent	81%-100 %
Good	61%-80%
Adequate	41%-60%
Poor	21%-40%
Very Poor	0%-20%

The validation questionnaire for the feasibility of content and media was used to obtain data regarding the feasibility of the cyber counseling development. Data was collected through validation sheets from experts, both for content and media, with the following interpretation criteria:

Table 2. Classification of Questionnaire Scores Based on the Likert Scale

Classification	Rating
Very Feasible	5
Feasible	4
Moderately Feasible	3
Less Feasible	2
Not Feasible	1

RESULTS AND DISCUSSION
Prototype of the Development of a Website-Based Cyber Counseling Model for Guidance and Counseling Services at SMA Negeri 1 Bayung Lencir
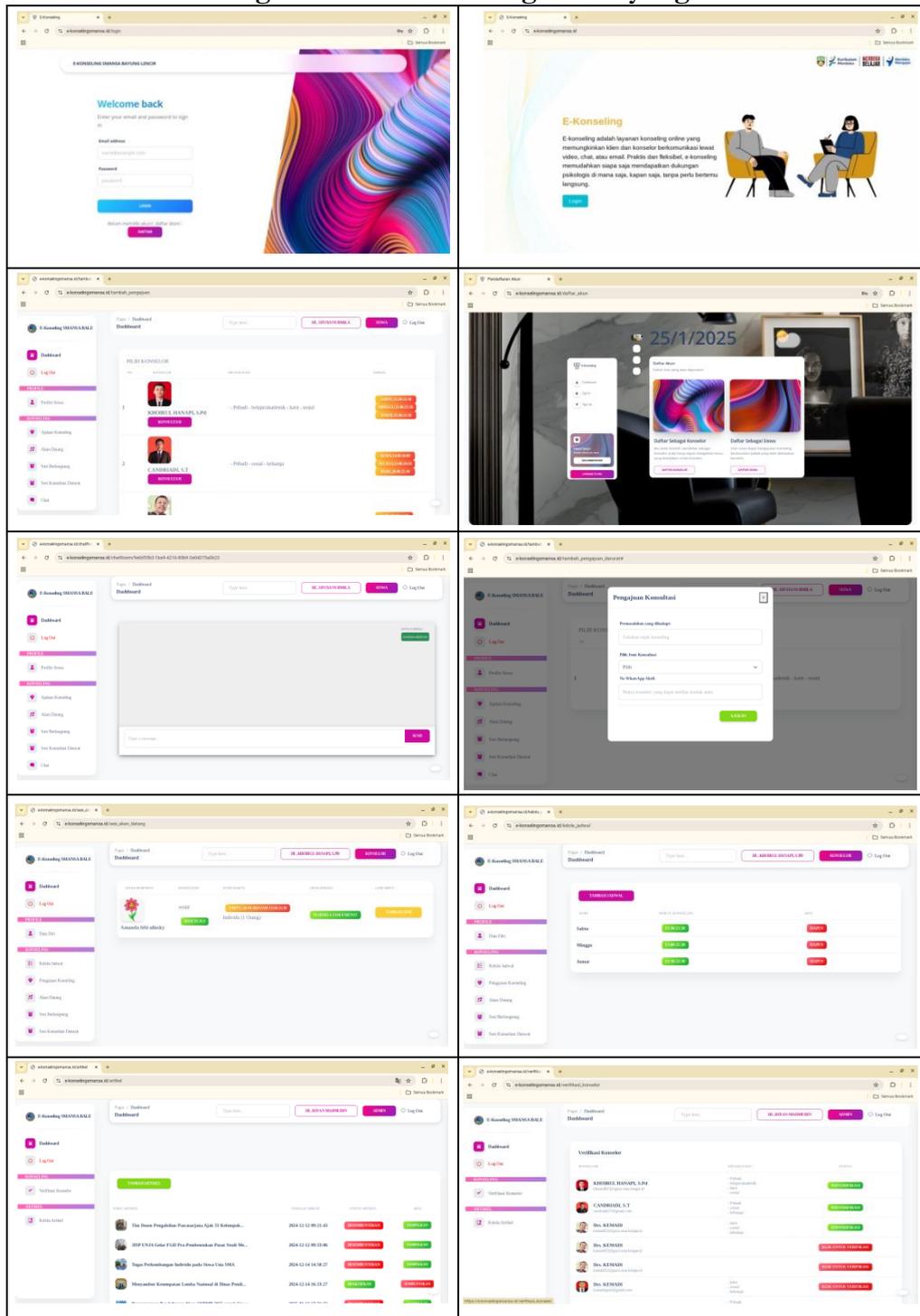

Image 1. Website Design Display with Various Features Developed

The development of the website-based cyber counseling model is designed as a response to the need for more flexible, modern, and relevant guidance and counseling services that meet the needs of students in the digital age. This innovation aims to provide wider and

more practical access for students, especially in overcoming various obstacles such as time limitations, embarrassment, or a lack of opportunities for face-to-face consultations. According to Islam (2023) in today's digital era, there is a need for digital innovation in the field of guidance and counseling that can help students optimize their development.
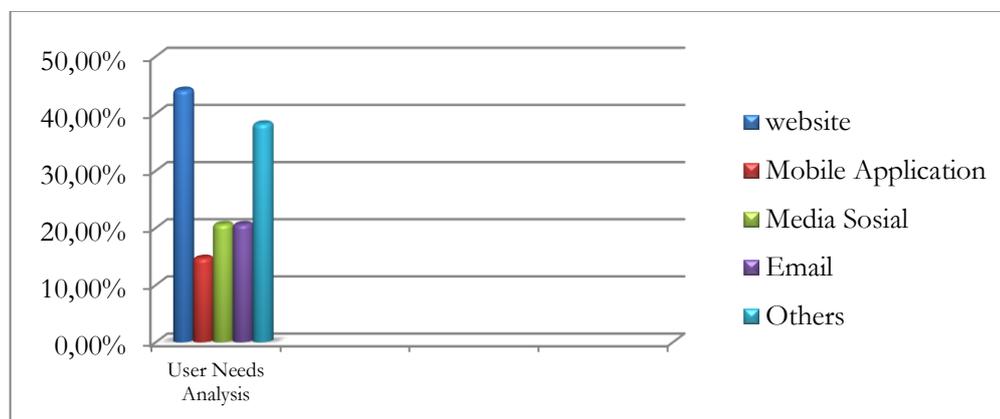
Image 2. Graph of User Media Needs Analysis Results

The needs analysis results show that the use of e-counseling media at SMA Negeri 1 Bayung Lencir still requires further attention. A total of 56% of students in the study subjects stated that they had never used the e-counseling services available at the school. This indicates that the majority of students have not utilized this facility, even though e-counseling has great potential to help students resolve various issues flexibly and in a modern way. Among the students who have used e-counseling services, various media were used to access the service. The majority, 44% of students, utilized the website as the primary medium to access the e-counseling service. This shows that web-based platforms are the most common choice, likely seen as easier to access and more informative. A total of 15% of students used mobile applications for the e-counseling service. Although the percentage is lower than that of the website, the use of mobile applications indicates student interest in more practical and up-to-date technology. Social media and email were each used by 21% of students.

The use of social media reflects students' preferences for platforms that have become a part of their daily activities. Meanwhile, email is still used as a formal medium considered suitable for personal and detailed communication. However, 56% of students still have not utilized the e-counseling services at school. This may be due to a lack of socialization, minimal promotion, or students' lack of understanding of the benefits of e-counseling. Additionally, this prototype was designed using responsive technology based on HTML, CSS, and JavaScript for the user interface, PHP or Node.js framework for data management, and MySQL database for securely storing information, equipped with data encryption and user authentication to ensure the confidentiality of student information. This is expected to improve the efficiency, accessibility, and effectiveness of guidance and counseling services in educational institutions.

Results of Product Feasibility Testing by Subject Matter Experts and Media Experts on the Development of the Web-Based Cyber Counseling Model
Based on the results of the product feasibility test, it shows that the web-based cyber counseling model prototype meets the very high-quality standards according to the assessments from media experts and subject matter experts. This evaluation was conducted

to ensure that the developed product not only has technical reliability but also relevance and content suitability with the goals of counseling and guidance.

Tabel 3. Percentage of Media Feasibility Test Scores

| No	Aspect	Number of Items	Scor (X)	Scor Max	%	Criteria
1	User Interface Design	3	15	15	100%	Very Feasible
2	Accessibility and Usability	3	15	15	100%	Very Feasible
3	Interactive Features	3	14	15	93%	Very Feasible
4	Security and Privacy	3	15	15	100%	Very Feasible
5	Technical Performance	3	15	15	100%	Very Feasible
	Quantity	**15**	**74**	**75**	**98.6%**	Very Feasible
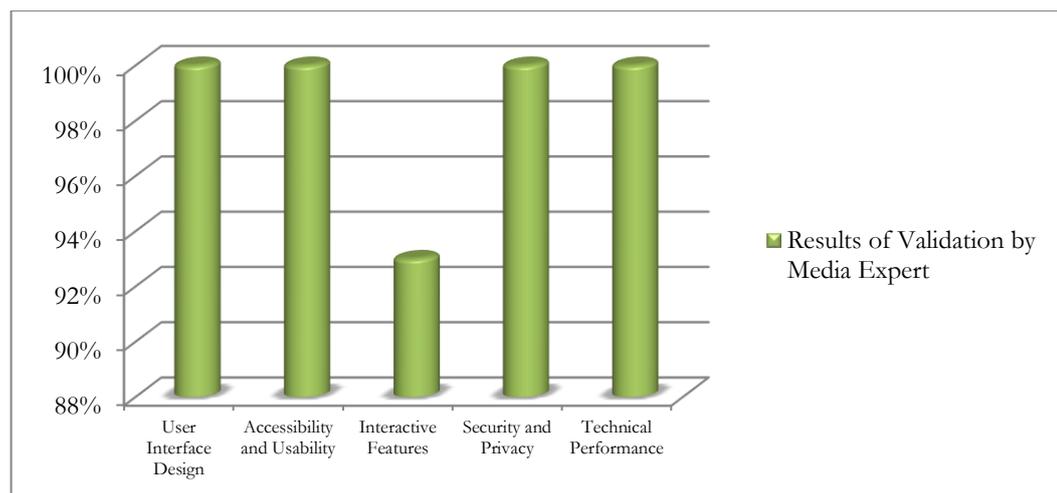
Image 3. Results of Validation by Media Expert

Based on the validation results conducted by media experts, this product received a feasibility score of 98.6%, which falls into the 'very feasible' category. This assessment includes aspects such as interface design, navigation, feature clarity, and system security, all of which were considered excellently designed and optimally meeting user needs.

Table 4. Percentage of Material Feasibility Test Scores

No	Aspect	Number of Items	Scor (X)	Scor Max	%	Criteria
1	Reliability	3	12	15	80%	Feasible
2	Responsiveness	3	13	15	86,6%	Very Feasible
3	Assurance	3	13	15	86,6%	Very Feasible
4	Empathy	3	13	15	86,6%	Very Feasible
5	Tangibles	3	15	15	100%	Very Feasible
	Quantity	**15**	**66**	**75**	**88%**	**Very Feasible**
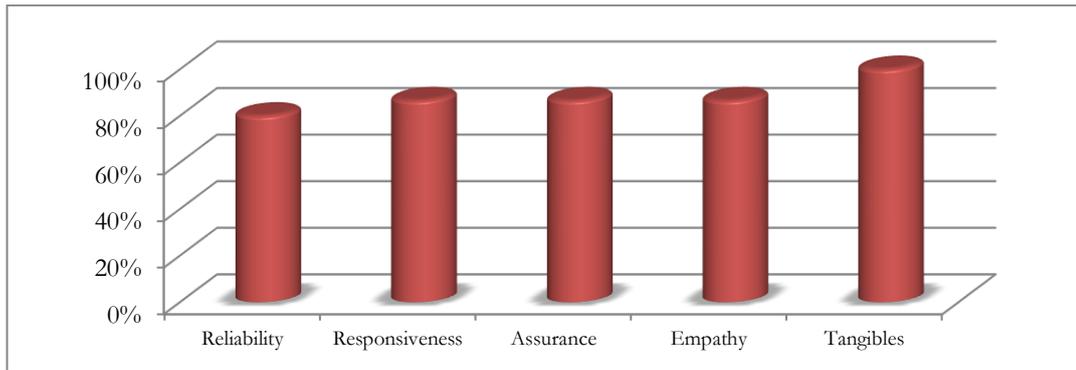
**Image 4.** Results of Validation by Material Expert

Meanwhile, the validation results from the material experts indicate a feasibility score of 88%, also categorized as "highly feasible." This assessment covers the alignment of counseling materials with students' needs, content accuracy, and the contribution of features to students' personal development. The material experts concluded that the content and system functions have been appropriately designed to support effective guidance and counseling services. Overall, the feasibility test results from both experts demonstrate that this prototype is highly ready for implementation. The system not only meets the necessary technical criteria but also ensures maximum benefits in supporting guidance and counseling services at SMA Negeri 1 Bayung Lencir.

Results of Student and BK Teacher Responses to the Development of the Cyber Counseling Model Based on Website
The responses gathered from students and Guidance and Counseling (BK) teachers regarding the development of the website-based cyber counseling model demonstrated very positive reception and support for further implementation of this system. In a small group trial involving 15 students, the responses yielded a score of 79.5% in the "Feasible" category, indicating that most students found the prototype adequately aligned with their needs, though there are still some aspects that require improvement to enhance user experience.

Table 5. Percentage Score of Small Group Student Response Results

No	Indicator	Number of Items	Scor (X)	Scor Max	%	Description
1	Usability	5	296	375	78.9	Feasible
2	Functionality	4	229	300	76.3	Feasible
3	Security and Privacy	3	197	225	87.6	Feasible
4	User Satisfaction	4	232	300	77.3	Feasible
	Quantity	**16**	**954**	**1200**	**79,5**	Feasible
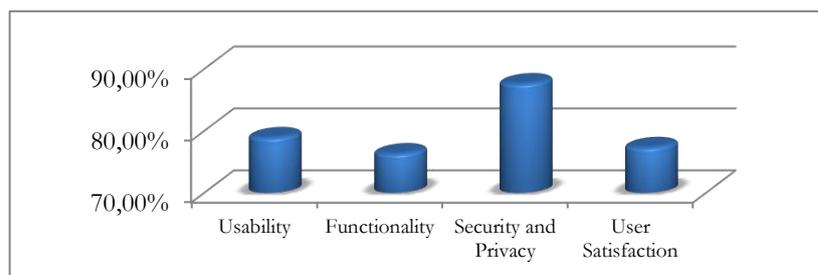
Image 4. Graph of Guidance and Counseling Teacher Response Results

CONCLUSION

Based on the results of the discussion, the process of developing a website-based cyber counseling model for Guidance and Counseling services at SMA Negeri 1 Bayung Lencir is carried out systematically through the stages of needs analysis, design, development, and product evaluation. The results of the product feasibility test by material experts and media experts show that the web-based cyber counseling model developed has a very high level of feasibility, namely in the very feasible category, while the results of student and Guidance and Counseling teacher responses to the web-based cyber counseling model show very good acceptance in the very feasible category.

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