Development of Indonesian literary history learning media based on Bengkulu ethnic literature assisted by the Thunkable Application

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KEYWORDS	ABSTRACT
Ethnic Literature of Bengkulu History of Indonesian Literature Learning Media	This study aims to develop learning media for the History of Indonesian Literature Based on Bengkulu Ethnic Literature Assisted by the Thunkable Application. Good learning media is not only innovative and interactive with digital technology embedded in it, but also contains meaning in its teaching materials. This study uses the Research and Development (R&D) method, the research sample is students taking the History of Literature course, FKIP Unib. The research instrument used to collect data in this study uses a questionnaire and test techniques. There are three questionnaires that distributed in this study, namely a material expert, a media expert validation, and a student response. The test technique aims to determine the extent of students' understanding of the material after the learning media for the history of Indonesian literature based on Bengkulu ethnic literature assisted by the thunkable application is tested. The research produced a product in the form of Indonesian Literary History learning media based on Bengkulu Ethnic Literature by utilizing the help of the thunkable application. The researcher presents 10 original Bengkulu folk tales as part of the Literary History material. Students' knowledge of Bengkulu society's culture has increased and students' interest in learning has increased. This android-based learning media was validated by media experts, material experts, and also media users with a total overall result of 4.1, which in other words this media is suitable for use in learning activities. The combination of Indonesian literary history with Bengkulu ethnic literature received a good response from users.

Introduction

The polemic of online learning is still present even though the pandemic situation has been declared over. Nervousness in welcoming a new era in the education system in Indonesia makes the learning process and achievements less than optimal. Education actors, especially lecturers, are expected to explore models, methods, media, and teaching materials that will be used during learning in the post-pandemic era as a form of adaptation to the Independent Campus and Independent Learning policies in higher education. Especially learning media, this policy gives lecturers the responsibility to facilitate students in exploring knowledge both in and outside the classroom. Freedom to explore knowledge must be balanced with the presence of learning media that can be accessed anytime and anywhere by students.

Sanjaya (2014) said that media applies to various activities or efforts, such as media in conveying messages, magnetic or heat delivery media in the field of engineering. Media is used in the field of education so that the term becomes educational media. Enayati & Abbas (2020) in the International Journal of Language Education stated that media helps the learning process as a communication process to take place optimally. With this communication, the hope is that the learning process will be more effective, efficient, and enjoyable for students. In addition, Briggs in Rusman (2008) stated that learning media as: the physical means of conveying instructional content, books, films, videotapes, etc.

Furthermore, Briggs also stated that media is a tool to stimulate students so that the learning process occurs. This statement is in line with the opinion of Kustandi & Sutjipto (2011) who stated that learning media is an intermediary or messenger from the sender to the recipient of the message. More specifically, the understanding of media in the teaching and learning process tends to be interpreted as graphic, photographic, or electronic tools to capture, process, and rearrange visual or verbal information. While Indriana (2011) specifically said that media is a very useful tool for students and educators in the learning and teaching process.

Then, the statement was clarified by Miarso (2011) who said that learning media is everything that is used to convey messages and can stimulate the thoughts, feelings, attention, and will of the learner so that it can encourage a deliberate, purposeful, and controlled learning process. This concept indirectly implies that good learning media is interactive and innovative learning media for students. To meet these standards, a learning media must not only present integrated materials but must also be packaged with the latest technology so that it can stimulate students' thoughts, feelings, attention, and willingness to learn. Even social media such as Facebook, Twitter, and YouTube have connected fellow students all over the world. This social media has become the main means of interacting with the world (Cheng-Min, 2019).

Astiningsih & Partana (2020) said that 21st century millennial education is experiencing a rapid transformation involving educators and students. This transformation requires educators to be ready to face various challenges for 21st century educators and the industrial revolution 4.0 (Higgins et al., 2012). For example, the challenge of the presence of independent learning habits. As conveyed by Pribadi & Chung (2022) that the success of independent learning comes from the motivation and desire of students to be active in learning activities. Independent learning is defined as an active and constructive process in which students set learning goals and try to monitor, regulate, and control their cognition, motivation, and behavior, which are guided and limited by these goals and the contextual features of their environment (Jansson & Ene, 2016; Schunk, 2012).

Akmal et al. (2024) said that in teaching English as a foreign language (EFL), there is an increasing interest in developing the use of learning media for teachers. The developments that occurred ultimately forced educators to change EFL classes that focused on traditional sources into diverse learning sources (Yusuf et al., 2020) This phenomenon is not much different from what happens to teachers who teach Indonesian language. The role of media is believed to be able to increase students' interest and motivation to learn (Khothori & Suzanne, 2020; Berlian et al,, 2021). In addition, the development of learning media must pay attention to the user aspect, where most students are students who are familiar with digital technology in their daily lives. In other words, technology-based learning media will tend to be more accepted by students. Rejekiningsih et al. (2023) said that the increasing number of smartphone users in Indonesia provides significant prospects for the development of educational technology. Smartphones can be said to be the latest technology that is familiar to the public and can be integrated as one of the learning media Roemintoyo & Budiarto, 2021; Elmqaddem, 2019). In addition, as conveyed by Jengathe et al. (2015), Android or smartphone technology can provide effective and efficient learning material applications that can be used anytime and anywhere when needed. So far, the presence of LMS has been an alternative progress in the use of media in education, but Rawashdeh et al. (2021) said that LMS tends to be quite difficult for students who are using LMS for the first time, especially since using LMS takes more time. Suprihatin et al. (2022) said that the integration between offline and online improves the experience of using ICT and exploring scientific approaches. In addition, Simanjuntak et al. (2023) said that the presence of a combination of offline and online will help the individual learning process. The advantages of online learning are flexibility of time and place, diverse learning resources, and more colorful learning (Harahap et al., 2019). In addition to student dependence on teachers, Le et al. (2018) said that the presence of low learning outcomes is also due to the limitations of teachers in using various learning models. Therefore, blended learning is needed, where the use of technology to combine online and offline learning (Horn & Staker, 2015; Thorne, 2003).

Talking about applications as learning media also means talking about supporting facilities such as the internet. As stated by Hanafi & Samsudin (2012) that technology-based learning media requires an internet connection in order to be used communicatively. The use of application-based media tends to be ideal for use at least in junior high school students. This is supported by research conducted by Haneefa (2023) which states that the experience of digital and distance education in the kingdom is more difficult for young students, as in other countries. It is unlikely that elementary school students will have their own digital devices to learn.

The Thunkable application is an open source android-based application. This application makes it easy for users to create android-based applications. Thunkable has a smooth and modern appearance in terms of features so that it can attract users. The final result of the media in the form of software, besides being easily accessible, this media also has a simple operating system so that it can support the learning process

anytime and anywhere. In addition, the presence of learning media assisted by the Thunkable application is expected to make space and time more effective and help the learning process become more interesting and meaningful for students. History of Indonesian Literature is one of the literature courses in the Indonesian Language Education study program, University of Bengkulu. This course is divided into two sub-materials, the first is classical Malay literature and the second is modern Indonesian literature.

The development of learning media assisted by the thunkable application focuses on the first sub-material. In developing learning media assisted by the thunkable application in the History of Indonesian Literature course, researchers include ethnic literature from Bengkulu province as part of the teaching material. The goal is for students who are the alpha generation to recognize their local wisdom. Even for the digital era like today, taboo or mystical concepts tend to have a strong influence in regulating human behavior. For example, in the concept of Paraiyar cultural worship where the gods are tamed to create personal relationships between the glorified and the general public (Ramachandran & Hashim, 2014). This refers to how the gods have a role in people's lives to connect social reality with the supernatural world and to emphasize the active involvement of the gods in everyday life in the village (Valk & Lourdusamy, 2007). Furthermore, associated with Bengkulu local wisdom, it is expected that with the presence of Bengkulu ethnic literature, students can understand the customs, habits, and traditions reflected in Bengkulu ethnic literature.

Therefore, presenting learning media that is not only digital technology but also based on local wisdom is important to do.

Good learning media is not only innovative and interactive with digital technology embedded in it, but also contains meaning in its teaching materials. Through the development of Indonesian Literature History learning media based on Bengkulu ethnic literature assisted by the thunkable application, it is hoped that it can improve the quality of learning in literature courses and students can understand their local wisdom so that their love for the nation's culture increases. Relevant research on the development of learning media using an application similar to thunkable, namely the inventor application, was conducted by Haslinda (2017) where the results of the study were an increase in student learning completeness.

The results of the initial ability test were only (22%) while the results of the final ability test were (76%). Furthermore, the results of the test on understanding the values of local cultural wisdom in Makassar proved that (91%) students were able to find the values of local wisdom and describe them based on existing realities. The difference between the relevant research above and the research that the researcher will conduct is in the subjects that will be included in the research, where the researcher develops Indonesian Literature History learning media. In addition, the researcher presents teaching materials based on Bengkulu ethnic literature where the teaching materials will be embedded in learning media assisted by the thunkable application. The limited research on the development of the thunkable application as a tool in developing learning media, especially in the history of literature courses based on Bengkulu ethnic literature, is also the reason the researcher conducted this research.

Method

This research employs the 4D research and development model established by Thiagarajan (1974) as its primary methodological framework. The model comprises four sequential phases: define, design, develop, and disseminate. The selection of this 4D model aligns with the research objective of developing instructional media for the Bengkulu Ethnic-Based Literary History course.

During the definition phase, the researchers conducted a comprehensive needs assessment to identify the requisite specifications for the proposed learning media. The design phase involved the creation of an initial prototype utilizing the Thunkable application as the development platform. The implementation of Thunkable facilitated the design of interactive learning media tailored to meet user requirements.

The development phase constitutes a critical component of this research, wherein the designed learning media underwent feasibility evaluation by three distinct evaluator groups: material experts, media specialists, and end-users. This multifaceted evaluation aimed to ensure that the developed instructional media satisfied quality standards across various dimensions. Based on the assessment outcomes, the product underwent refinement prior to entering the dissemination phase.

The research instrument utilized in this study consisted of a questionnaire employing a five-point Likert scale comprising: strongly agree, agree, moderately agree, disagree, and strongly disagree. This questionnaire was constructed based on established indicators of instructional media quality and distributed to experts and users to obtain evaluative data regarding the developed learning media.

Data collection was conducted through the distribution of questionnaires to respondents comprising material experts, media specialists, and users. The respondents provided assessments of various aspects of

the learning media according to their respective expertise and perspectives. The data collected from these questionnaires formed the foundation for analyzing the feasibility of the developed instructional media.

Data analysis in this research employed a descriptive quantitative approach. The data obtained from the questionnaires were calculated using the formula $X = \Sigma X / N$ to derive the total score, where X represents the mean score, ΣX denotes the sum of scores, and N indicates the number of respondents. The calculation results were subsequently converted according to Suartama's (2010) five-scale conversion table to determine the product's feasibility category. Then the final results are converted according to the Table 1.

Table 1. Conversion score on a scale of five

VALUE INTERVAL	RANGE	CATEGORY
$X > Xi + 1{,}8\,Sbi$	4,21-5,00	Very Worthy
$Xi + 0{,}6SBi < X \le Xi + 1{,}8Sbi$	3,41-4,20	Worthy
$Xi - 0{,}6SBi < X \le Xi + 0{,}6Sbi$	2,61-3,40	Decent enough
$Xi - 1{,}8SBi < X \le Xi - 0{,}6Sbi$	1,81-2,60	less worthy
$X \le Xi - 1{,}8Sbi$	0-1,80	Not feasible

Based on the conversion Table 1., the learning media was classified as "Very Worthy" if attaining a score within the range of 4.21-5.00, "Worthy" for scores between 3.41-4.20, "Fairly Worthy" for scores between 2.61-3.40, "Less Worthy" for scores between 1.81-2.60, and "Not Feasible" if the score fell within the range of 0-1.80. These criteria served as benchmarks for evaluating whether the developed learning media was suitable for implementation in the Bengkulu Ethnic-Based Literary History course.

Results and Discussion

Definition

This stage is related to the analysis of needs related to users, namely lecturers and students. The purpose of this needs analysis is to determine the tendency of the use of learning media that has been used by both lecturers and students in literature courses. The researcher distributed a needs analysis questionnaire that was shared via Google Form to lecturers and students. The instrument trial showed that the CV obtained was 0.75 and 0.78, which means that the instrument is suitable for use. Furthermore, the researcher distributed the instrument to determine the media needs related to the history of literature course. The results showed a value of 3.92 from an average interval of at least 3, so in other words, students are interested in the learning media for the History of Indonesian Literature Based on Bengkulu Ethnic Literature. Therefore, based on the needs analysis carried out, it can be concluded that the development of the learning media for the History of Indonesian Literature Based on Bengkulu Ethnic Literature that the researcher carried out was in line with the needs of users, namely lecturers and students.

The needs analysis phase constitutes a critical preliminary step in the development process (Anggraeini, 2021), focusing on evaluating the requirements and preferences of the primary stakeholders—lecturers and students. This systematic assessment aimed to identify existing patterns of learning media utilization within literature courses and ascertain the potential receptiveness toward innovative instructional resources.

To ensure methodological rigor, researchers developed and distributed a needs analysis questionnaire via Google Form to both faculty members and student populations. Prior to full implementation, the research instruments underwent validation testing, yielding content validity (CV) ratios of 0.75 and 0.78 respectively. These statistical indicators exceed the threshold for instrument reliability, confirming their appropriateness for data collection purposes.

Following validation, the researchers proceeded with the comprehensive distribution of the assessment instrument to identify specific media requirements pertaining to the literature history course. The quantitative analysis (Khatami, et.al., 2020; Hollin, 2020) of the collected data revealed a significant preference indicator of 3.92 on a scale with a minimum threshold value of 3. This statistical outcome provides compelling evidence that students demonstrate substantial interest in and receptivity toward specialized learning media for the History of Indonesian Literature Based on Bengkulu Ethnic Literature.

The empirical findings from this needs assessment phase offer substantive validation for the research initiative. The data conclusively establish that the development of specialized instructional media focusing on Bengkulu ethnic literary traditions within Indonesian literary history corresponds directly with the expressed educational requirements and preferences of both instructional facilitators and learners. This alignment between development objectives and stakeholder needs reinforces the pedagogical relevance and potential efficacy of the proposed learning media.

The robust methodological approach employed (Yuan & Gomer, 2021) in this phase, combining instrument validation with comprehensive data collection and analysis, provides a solid foundation for subsequent development stages. By establishing this evidence-based justification, researchers ensure that the resulting educational technology intervention addresses genuine instructional gaps rather than presumed needs, thereby enhancing its potential for meaningful classroom integration and educational impact.

Design

At this stage, the researcher created a storyboard for the Indonesian Literature History course based on Bengkulu Ethnic Literature as a guide in designing the layout of the resulting learning media. The media design is adjusted to the learning scenario that has been prepared so that users when utilizing the learning media can understand the learning flow when combined with face-to-face learning. The researcher combined literary history by linking it to Bengkulu ethnic literature as part of an example of a literary work consisting of 10 Bengkulu ethnic folk tales. Furthermore, the researcher designed the layout of the learning media display can be seen in Fig. 1, Fig. 2, and Fig. 3.
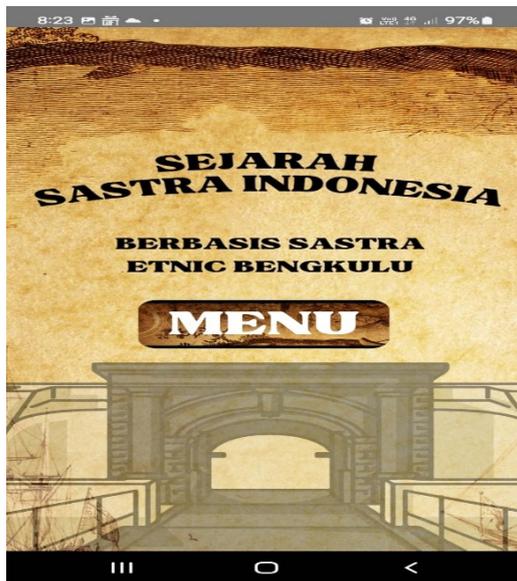

Fig. 1. Initial view when the application is opened   **Fig. 2.** View after the menu button is clicked

Fig. 3. Display of the main content of the learning media

In the learning media (Yuliansih, et.al., 2021; Puspitarini & Hanif, 2019) created by the researcher, users or students can find out the CPL and CPMK as well as the objectives of the course which function as a guide for students before carrying out learning activities. Furthermore, on the display there is an old literature button where in that section there are theories related to old Indonesian literature. The focus of the learning media developed is the presence of Bengkulu ethnic literature, so this media also contains a special button regarding Bengkulu ethnic literature with a focus on its folk tales. In this media there is also an evaluation section, where in that section there are questions in the form of multiple choice or essays to find out the extent of students' understanding of the material being taught.

In addition to the features mentioned, the learning media is also equipped with interactive elements such as visual aids and audio narration to enhance student engagement and support various learning styles. The inclusion of multimedia content not only makes the material more accessible but also helps in illustrating the cultural nuances found in Bengkulu ethnic literature. Moreover, students are encouraged to participate in discussion forums embedded within the platform, allowing for collaborative learning and the exchange of perspectives. This interactive environment fosters a deeper appreciation and critical understanding of local literary heritage. The learning media also provides feedback mechanisms, enabling students to receive immediate responses to their answers in the evaluation section, thus promoting reflective learning and continuous improvement.

Development

The research entitled Indonesian Literary History Learning Media Based on Bengkulu Ethnic Literature contains literary history materials related to Bengkulu ethnic literature. In relation to the development of learning media, the researcher focuses on the classical Malay literature sub-material to develop learning media based on Bengkulu ethnic literature assisted by thunkable application technology. The Bengkulu ethnic literature that is the focus of the researcher is folklore. The researcher will develop media through materials related to Bengkulu folklore as a manifestation of efforts to develop local wisdom insights as well as efforts to maintain the nation's culture. Classical Malay literature is a study that has been developing for a very long time and is still ongoing. Classical Malay literature is part of world literature. After the Indonesian Literary History Learning Media Based on Bengkulu Ethnic Literature is ready, the researcher then validates it with material experts and media experts and tests it on students to determine the feasibility of the media that the researcher produces.

Furthermore, the integration of Bengkulu ethnic literature—particularly its folklore—into the learning media not only enriches the content of classical Malay literature studies but also provides a more contextual and culturally relevant learning experience for students. By incorporating regional literature, the media emphasizes the diversity within Indonesian literary history and helps students recognize the value of local narratives in shaping national identity. The use of the Thunkable application (Vozna, et.al., 2023; Mailani, et.al., 2024) allows for the creation of an interactive and user-friendly interface, making the material more accessible and engaging. The media development process also follows a rigorous validation procedure involving subject matter experts and student testing, ensuring that both the content and design meet educational standards. This approach highlights the importance of integrating technology in preserving intangible cultural heritage while also adapting to modern learning needs. Through this media, students are expected not only to understand literary concepts but also to appreciate the rich cultural traditions embedded in Bengkulu folklore, thus fostering a deeper connection with their own cultural roots.

Material Expert Validation

This stage aims to determine the level of suitability of the material presented by the researcher in the media with the material in the Bengkulu ethnic-based literary history course. The material presented by the researcher is adjusted to the semester learning plan in the Literary History course. The material in the learning media focuses on the discussion of old literature so that it is synchronized with the topic of Bengkulu ethnic literature. In addition to the relevance of the material, this validation stage also looks at the feasibility of the questions as an evaluation for users. Furthermore, the use of language in the media and its implementation are also assessed for their feasibility by the material validator.

The validation process is crucial to ensure that the content delivered through the media not only aligns with academic standards but also effectively supports the learning objectives outlined in the course. During this stage, the clarity, accuracy, and depth of the material are examined to ensure that students can comprehend and engage with the topics presented. The structure and progression of the content are also reviewed to confirm that the material is logically sequenced and facilitates a coherent learning experience. Additionally, the evaluation questions included in the media—both multiple choice and essay formats—are analyzed to ensure they are appropriately challenging, clearly worded, and capable of measuring students' understanding of the material. The appropriateness of the language used in the media is another key

component, as it must be accessible to students while maintaining academic rigor. Feedback from validators at this stage provides essential insights that guide revisions, improving the overall quality and effectiveness of the learning media before it is implemented more widely.The results of the material validation can be seen in Table 2.

Table 2. Results of validation by material experts

No	Component	Total Score	Average	Category
1	Relevance of Material	21	3,9	Worthy
2	Exercises	20	3,8	Worthy
3	Language	18	4,0	Worthy
4	Implementation	10	4,0	Worthy
	TOTAL	69	3,9	**Worthy**

From the table above, it can be seen that the average score for the relevance of the material is 3.9, which means it is in the appropriate category. The evaluation questions presented in the media received an average score of 3.8 or were in the appropriate category. For language and implementation, both received an average score of 4.0, which was in the appropriate category. Overall, the assessment from the material expert received a total score of 3.9 with an appropriate category. The material, questions, language used, and interpretation of the material are adjusted to the learning media that the researcher developed, namely based on Bengkulu ethnic literature. Not only presenting various kinds of Bengkulu ethnic folklore, the researcher also presents Bengkulu culture in general. It is hoped that users can increase their knowledge about Bengkulu ethnic culture.

Media Expert Validation

The second stage is validation of eligibility by media experts where to determine the eligibility of the product the researcher is assisted by media experts, namely lecturers who are experts in digital technology so that they can provide relevant assessments of the learning media that the researcher designed. The focus of the assessment consists of two main topics, namely how the learning media looks and how the performance of using the media is. The results of the media validator assessment can be seen in Table 3.

Table 3. Results of media expert validation

No	Component	Total Score	Average	Category
1	Display of learning media	20	3,9	Worthy
2	Use	18	4,0	Worthy
	TOTAL	**38**	**3,95**	**Worthy**

The assessment by the media validator shows that the display of the learning media gets a total score of 3.9 or is categorized as feasible. The media displayed is suitable for users, namely students, where the design presented by the researcher is simple and functional so that users remain focused on the material on the media. Next is the average for media functionality, which is 4.0, which means it is categorized as feasible. The validator checks for the smooth use of the media, the results of which are that there are no significant delays when the learning media is used. In addition, all the selection buttons presented on the media can be used properly so that the learning media created by the researcher gets a total average of 3.95 or is categorized as feasible.

User Response

At this stage, the researcher distributed the learning media that had been validated by material and media experts to users to find out how users responded to the Bengkulu ethnic literature-based learning media that the researcher presented. The results of user responses to the learning media can be seen in Table 4.

Table 4. User response results

No	Component	Total Score	Average	Category
1	Learning	16	4,0	Worthy
2	Material	25	3,8	Worthy
3	Display of learning media	15	4,1	Worthy
4	Use	13	4,1	Worthy
	TOTAL	**70**	**4**	**Worthy**

Based on the table above, it can be seen that learning activities assisted by learning media for the history of literature based on Bengkulu ethnic literature get an average of 4.0 or are categorized as feasible. Users understand the learning flow with the help of the media, in addition, students' knowledge of Bengkulu ethnic literature increases. Second, is the material component where user responses show an average score of 3.8 or are categorized as feasible. The appearance of the learning media gets an average score of 4.1 or is categorized as feasible. Users respond well to the appearance of the media and think that the media presented is interesting because it makes it easy for users to access material from each user's gadget. The last is the user response to the use of the media. Where users think that the media presented is easy to use with an average value of 4.1 or falls into the feasible category. The total average is 4.0 so it can be concluded that the learning media for the history of literature based on Bengkulu ethnic literature assisted by the thunkable application that the researcher developed is feasible for use in learning activities.

Conclusion

This development research produces a product in the form of a learning media for Literary History based on Bengkulu Ethnic Literature. The media developed was tested for its feasibility by the validator, there were material, media, and user tests. The final result of the material test got an average value of 3.9 or was categorized as feasible. The media test got an average final value of 3.95 or was categorized as feasible. Finally, the results of the user response showed an average value of 4.0 or was categorized as feasible. The final average score was 3.95 so it can be concluded that the media for learning Literary History based on Bengkulu ethnic literature assisted by the thunkable application that the researcher developed is feasible for use in learning activities. This study also has limitations, therefore the researcher hopes that this development research can initiate other further research such as 1) Development of Indonesian Literature History Learning Media Based on Bengkulu Ethnic Literature can inspire the creation of media in other literature courses, 2) Variations in questions need to be added to strengthen the concept of the material for users, 3) Further research may be able to conduct trials on a wider scale so as to produce Indonesian Literature History Learning Media Based on Bengkulu Ethnic Literature with a wider scope of use, and 4) Further research is needed to measure the effectiveness of using Indonesian Literature History Learning Media Based on Bengkulu Ethnic Literature such as classroom action research.

Declarations

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