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AN INVESTIGATION OF LIBRARY INTEGRATED MANAGEMENT SYSTEM , AND ITS STATUS IN ENGINEERING COLLEGES AFFILIATED TO ANNA UNIVERSITY IN CHENGALPATTU DISTRICT

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ABSTRACT:

The location of libraries, and specifically the integration of technology and libraries, is greatly influenced by the development and advancement of information and communication technology (ICT). The current article illustrates the status and challenges surrounding library integration at college libraries connected to Anna College in the Chengalpattu area. In the amended check, it is stated unequivocally that 92.50% of the libraries in the Chengalpattu district are automated. Additionally, there are currently some underlying concerns that are not automatic, such as a lack of infrastructure, limited funding, a shortage of staff, and the absence of human education in libraries. Additionally, it provides a status view of the software packages that libraries and modules use. This study focuses specifically on the issues that arise during the adoption and use of library integration software systems, including their accessibility, suitability, and challenges.

KEYWORD:

1.1 Library Integration, Aided college libraries, issues of Library Integration, Automation ,Library Software

INTRODUCTION:

Information technology (IT) has had a significant impact on library and information services, particularly in the last 40 years. The main reason for this is because IT operates with great performance, efficiency, and capacity to handle large amounts of information and distribute it effectively. The internal operations of the library and information centers are effectively managed by computers. Technologies of information and communication (ICTs) are widely recognized for their capacity to transmit data more effectively and efficiently than in the past. A crucial step in this regard has been the introduction of computers into the library's "housekeeping" operations. In contrast to industrialized countries where library automation was first used in the 1960s, library automation efforts started in India in the 1980s. With the establishment of the Information and Library Network (INFLIBNET), which serves as the national agency for coordinating the automation of university libraries in India, special libraries in the country were the first to adopt automation and networking activities. University libraries in India then followed suit.

1.3 REVIEW OF LITERATURE

The literature on library automation highlights the multifaceted nature of this field, encompassing not only the technological advancements but also the organizational and user-centric considerations that shape its implementation (Comşa et al., 2012)

The field of library automation has evolved from conventional manual operations to sophisticated automated technologies that improve operational efficiency and user experience. According to Egunjobi and Awoyemi (2012), the use of web-enabled software such as Koha has transformed library automation by providing a comprehensive foundation for efficiently managing library resources. This movement is consistent with the broader trend of digital transformation in several sectors, including libraries, which are rapidly integrating technology to suit customer expectations (Zhang, Liu, & Mathews, 2015).

Furthermore, Ahmad et al. (2023) describe how collaborative software designs have paved the path for human-bot interactions that can help librarians manage resources and provide services. Such creative techniques represent a paradigm shift in the way libraries operate, moving towards a more collaborative and automated environment.

Open-source software has developed as an essential component of library automation, particularly in resource-constrained contexts. The implementation of Koha in Nigerian libraries has been hailed as a significant step forward, assisting in overcoming the obstacles associated with proprietary systems (Gupta et al., 2010). This breakthrough emphasizes the importance of accessibility and adaptability in library systems, allowing institutions to adjust solutions to their individual needs without incurring significant costs.

Furthermore, Arachchi and Perera's (2018) research on Continuous Integration and Continuous Delivery (CI/CD) in software project management shows that automation has the ability to significantly streamline library operations. Adopting CI/CD approaches can increase libraries' response to changing user needs and the general efficiency of their services.

While the existing literature gives useful insights into library automation, significant knowledge gaps remain. For example, empirical research is needed to analyze the long-term effects of automation on library user engagement and satisfaction. Furthermore, the convergence of digital humanities and digital libraries, as observed by Zhang et al. (2015), requires deeper investigation to understand how these domains might synergistically enhance library services.

The literature surrounding library automation highlights its critical role in enhancing the efficiency and effectiveness of library services in various educational contexts. (Akparobore & O. Akparobore, 2019) emphasizes that libraries must embrace automation to remain relevant in the information age, suggesting that automation facilitates core library functions such as acquisition, organization, dissemination, and maintenance of information. Their findings indicate that automation not only improves access to information for users but also fosters interconnectivity among libraries, thereby enriching the overall library experience.

Building on this foundation, (Peter Olagoke & Adeniyi Kolawole, 2019) delve into the performance implications of library automation for librarians in private universities in South-West Nigeria. They argue that traditional record-keeping methods are inadequate in the face of the burgeoning information landscape, necessitating a shift towards automation. Their research underscores the advantages of resource sharing and time-saving for both library staff and patrons, asserting that automation significantly transforms library operations by allowing for more efficient management of resources. The authors highlight that automation liberates librarians from repetitive tasks, thereby enabling them to deliver services more promptly and effectively

In a similar vein, (J, 2019) explores the status of library automation among aided college libraries in Bengaluru, revealing that the adoption of automated systems is essential for maximizing library utility for students and faculty. The study illustrates that automation not only streamlines library operations but is also a prerequisite for accreditation by the National Assessment and Accreditation Council (NAAC). Key benefits identified include time savings, enhanced information management capabilities, and the provision of modern IT-based services such as Online Public Access Catalogs (OPAC) and barcode technology. The discussion also references previous studies that have identified obstacles to effective library automation, such as inadequate funding and lack of skilled professionals, suggesting that while progress is being made, challenges remain that could hinder the full realization of automation's potential.

1.4 NEED AND SCOPE OF THE STUDY

According to reports, the Chengalpattu district in Tamil nadu is among the state's top educational hubs and is now the location of colleges. Through excellent and competent instruction, the educational institutions in the Chengalpattu district are committed to providing students with ample opportunities for the all-around development of their skills and building a strong foundation for dedicated and committed service, ultimately contributing to the betterment of India. There are 31 private aided institutions in the Chengalpattu district, most of which provide education to students from both rural and urban backgrounds. Because of this, the libraries at these colleges ought to live up to user expectations by putting library integration into practice.

1.5 OBJECTIVES OF THE STUDY

- To know the college strength and collection available in aided college libraries.
- To determine which software is utilized for library integration and which aspects of library services and functions are integrated PDF.
- To discover barriers to library integration confronted by using library staff.
- To become familiar with the services offered by the library by using the library integration service.
- To learn about the security services and hardware that the library offers

1.6 METHODOLOGY

All 31 college librarians receiving private assistance were given the structured questionnaire; 25 of them responded, yielding an 81% response rate. After conducting a phone contact with the respondents to obtain comprehensive data, the incomplete surveys were approved. Authors extracted journal articles, books, and other materials for secondary data from internet databases such as Scopus, EBSCO-host, and Emerald. The three sections of the questionnaire cover demographic data, library user, strength, collection, and integration. In order to lower patient respondents' levels of annoyance and improve response rates and quality, the Likert five-point scale was used.

1.7 Student strength in engineering colleges in Chengalpattu district :

Table 1.1 : Student strength in Engineering college

No of students	Frequency	Percentage
1 - 500	04	13%
501 - 1000	10	32%
1001 - 2000	15	48%
Above 2000	2	7%

Figure -1 Student strength

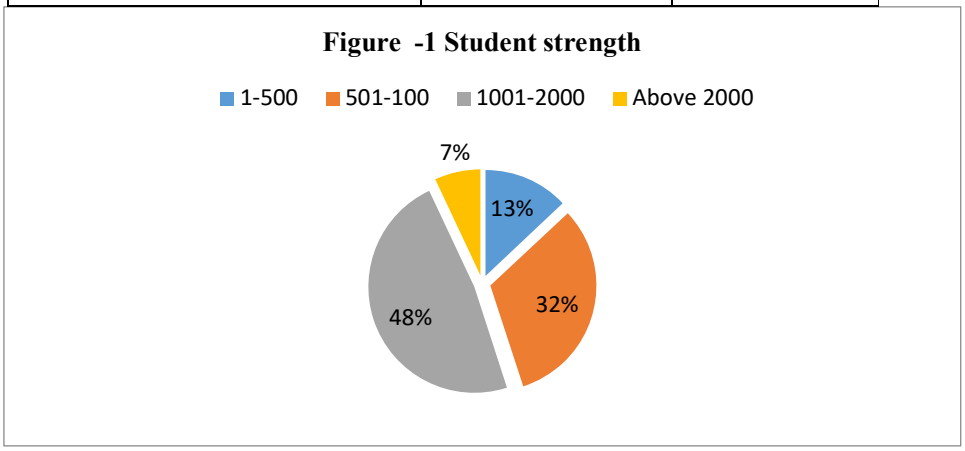


Table- 1 shows the number of students enrolled in Chengalpattu, Tamilnadu's private aided colleges. According to Table 1, 48% of private-aided institutions have student strengths between 1000 and 2000, and 32% have student strengths between 501 and 1000. These are followed by 13% and 7%, respectively, by student strengths between 1 and 500 and over 2000.

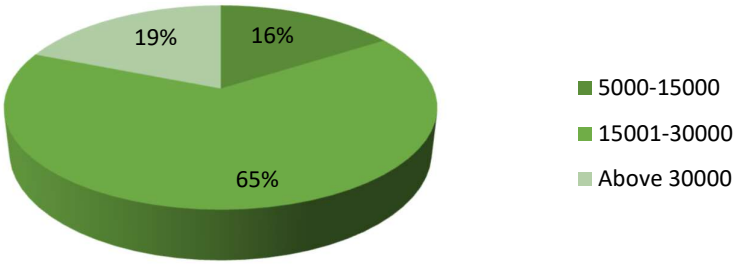
1.8 Library collection

The collected data and subsequent analysis clearly show that the collections are kept in the form of printed books that are labeled as reference books, textbooks, books in the book bank, magazines, back volumes of periodicals, and CD-ROMS by the libraries of different private aided colleges in Chengalpattu, Tamilnadu . Table- 2 shows the collection of libraries at Private-aided College Libraries.

Table 1.2 : Library collection in Engineering college in Chengalpattu district

Library collection	Frequency	Percentage
5000 - 15000	05	16%
15001- 30000	20	65%
30000 and Above	06	19%

Figure - 2 Library collection



According to table -2, 16% of libraries have total collections that fall between 5000 and 15000, 65% have total collections that fall between 15001 and 30000, and 19% have total collections that fall above 30000 books.

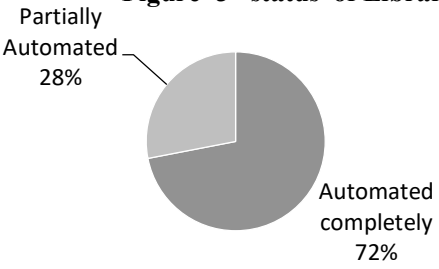
1.9 Status of Library integration in affiliated colleges in Chengalpattu district :

ICT development and expansion is significant to library and information research, particularly library integration. The state of library integration at the associated colleges is displayed in Table 1.3. Chengalpattu district libraries.

Table 1.3 : Status of Library integration

Integration Status	Frequency N	Percentage (%)
Integrated completely	20	65%
Partially Integrated	11	35%

Figure -3 status of Library integration



Based on Table 1.1, it can be inferred that out of the 31 libraries assessed, 20 (65%) have comprehensive integration, whereas 11 (35%) have partial automation. According to their needs, it shows that most libraries are automated using both proprietary and publicly available precursor software.

1.10 Software used for Library integration in Chengalpattu District

Software plays a vital role in automating the Library. Any library must carefully choose its software. Software will be selected with consideration for people, infrastructure, needs, and financial support. The associated college libraries situated in the Chengalpattu area are the main locations where Auto Lib software is utilized. Table 1.3 shows how the automation software is presented.

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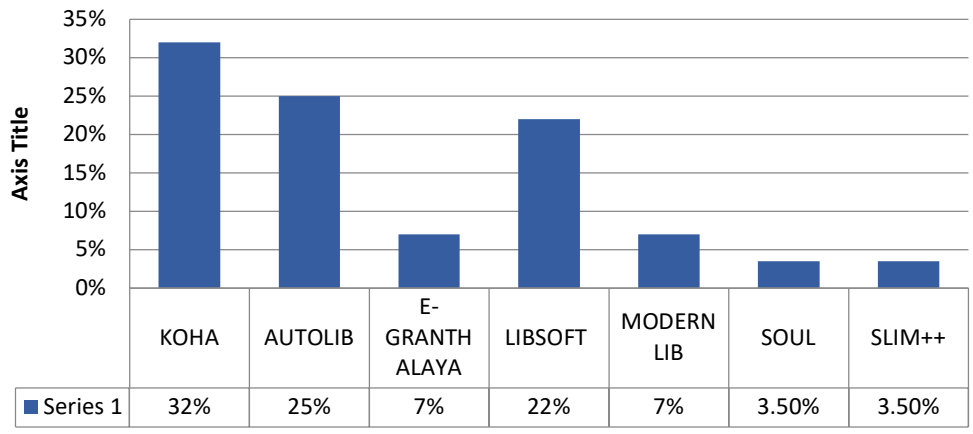
Table - 1. 4 : Software used for library Integration

Name of the Software	Frequency	Percentage
KOHA	10	32%
AUTOLIB	08	25%
E- GRANTHALAYA	02	7%
LIBSOFT	07	22%
MODERNLIB	02	7%
SOUL	01	3.5%
SLIM ++	01	3.5%

Table 4 shows that 32% of libraries utilize KOHA, 25% use Autolib, 22% use Lib soft, 7% use E- Granthalaya and Modern lib, and 3.5% use SOUL and SLIM, in that order.

Figure - 4 Software used for Library integration



1.11 Availability of ICT infrastructure and Library security in the Library

Table - 1.5: ICT infrastructure in Library

ICT infrastructure	Frequency	Percentage
Computers in Library	25	81%
Server	15	49%
Bar code (Library security)	28	90%
UPS	20	65%
Printer	22	70%
Scanner	16	51%

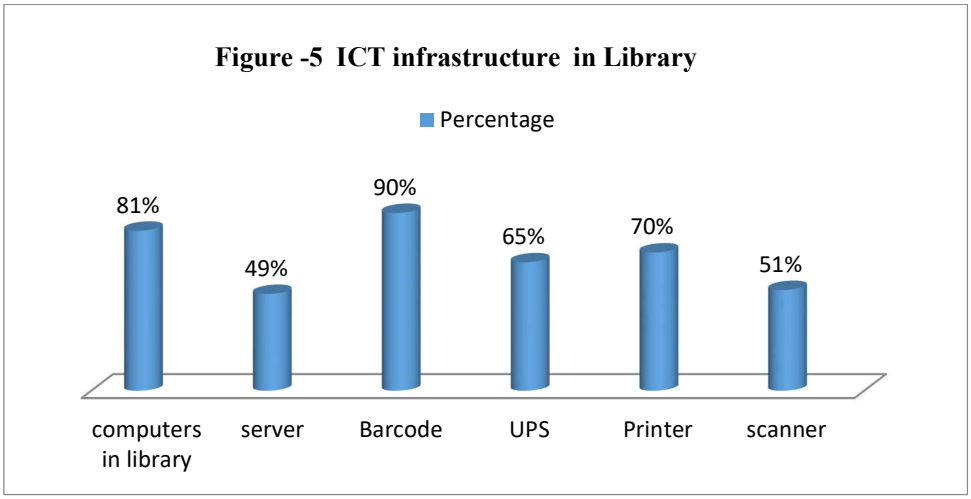


Table -5 shows that 81% of libraries have computers, 49% have a separate server for keeping records, 90% have barcode technology installed for security and circulation, 65% have a separate UPS for the library, 70% have printers, and 51% have scanners.

1.12 Type of Library service offered through Library Integration service

Table - 1. 6 : Library integration service offered

Library integration service	Frequency	Percentage
OPAC	31	100%
SDI and CAS	22	70%
Question bank service	28	90%
Circulation service	31	100%
Inter library loan	18	58%
Book bank facilities SC/ST	15	49%
Reference service	23	74%

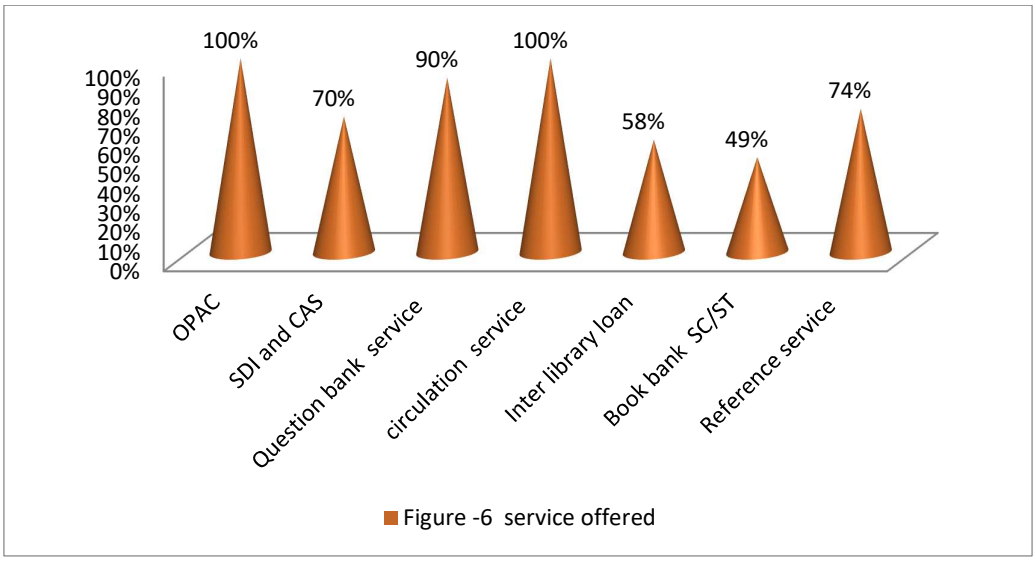


Table - 6 shows that OPAC has 100%, SDI and CAS services have 70%, question banks have 90%, circulation has 100%, interlibrary loans have 58%, book bank facilities have 49%, and reference service has 74%.

1.13 BARRIERS FACED DURING THE POST AUTOMATION PROCESS

Automation in libraries facilitates effective and efficient patron service by staff, but it's important to think about maintenance and potential problems that can develop after installation. The primary challenges may include poor financing for training and development, incompatibility between outdated hardware and software, user awareness, technical problems, updating to the most recent version, etc..

Table - 1.7 : Barriers faced the during post automation process

Impact of Library Integration	**Frequency**	**Percentage**
Insufficiently skilled personnel	15	49%
Users' inadequate understanding of IT	08	25%
Absence of assistance from the higher authorities	10	32%
Inadequate infrastructure	11	35%
Absence of support for the upgraded software version	20	65%
Lack of space	22	70%

Figure -7 Barrier in Library integration

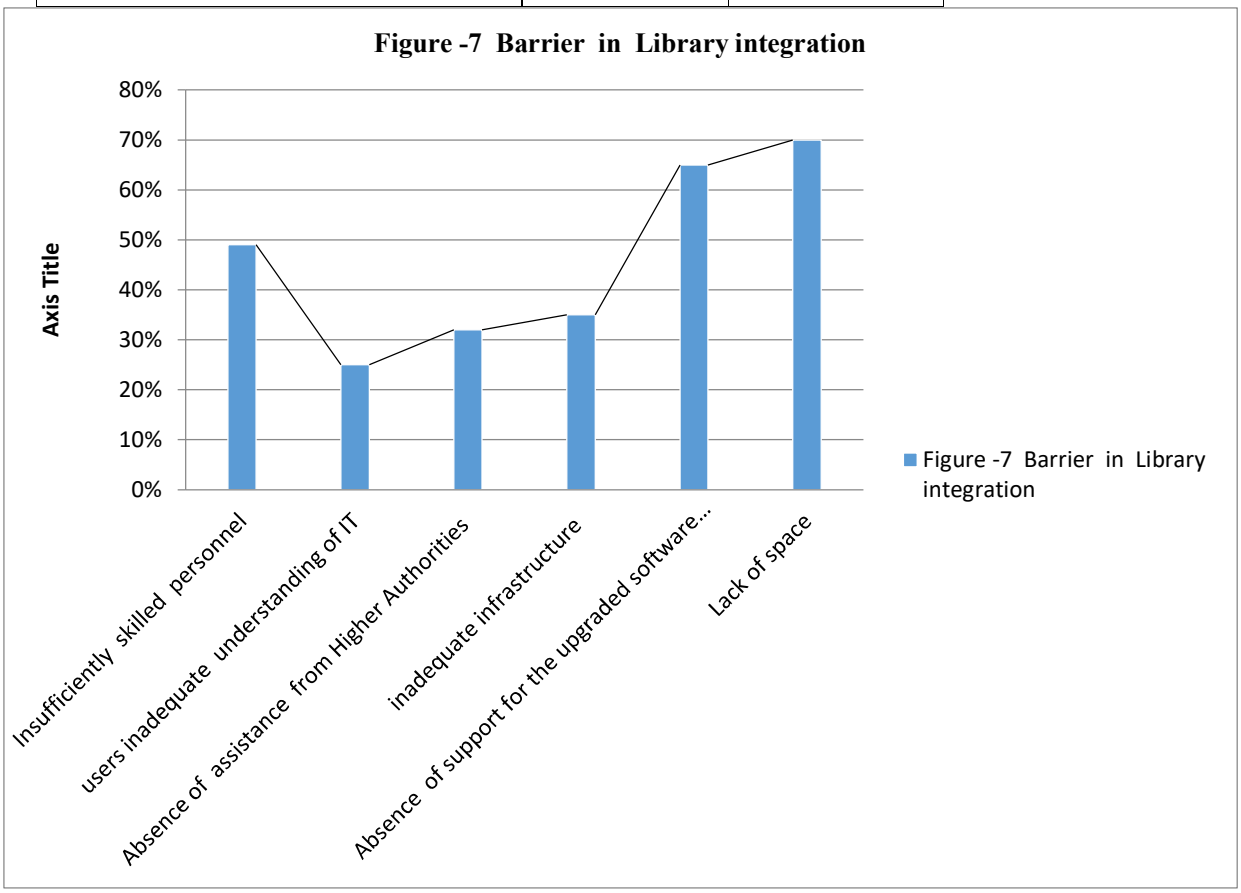


Table- 7 demonstrates that the main issue with the post-automation process is that 49% of students reported that

there was not enough skilled staff, followed by 25% who said that staff members did not know enough about IT, 32% who said there was no higher authority, 35% who said there was inadequate infrastructure, 65% who said they were still using outdated software, and 70% who said there was not enough space**.**

1.14 Findings of the Study

- It has been discovered that 48% of colleges enroll between 1000 and 2000 students, while 65% of institutions have a library collection of between 15000 and 30000 items.
- Based on the collected data, it is evident that most of the selected libraries have access to OPAC, the web, e-journals, e-books, repositories, digitalization, and other IT-based services. Electronic devices are also available in the library. Workstations, LCD projectors, and large-capacity servers are a few examples. In addition to these libraries, there are more resources available as well, such as bar code printers, CCTV, Bar code technologies, file servers, inverters, and battery backup.
- It is found that only fewer than 65% of the selected libraries have automation fully implemented, and more than 35% of the libraries have automation partially implemented.
- Based on the respondent's information, almost all libraries employ software like Auto lib, Koha, and Libsoft.
- Acquisition, circulation, cataloging, and other functions are totally automated in most libraries. Other functions, such as serials, reference services, stock or physical verification, etc., are fully automated.
- Based on the data submitted by the participants, it was found that in most management institutes, the network connects all departments—teaching, non-teaching, and research. Furthermore, most institutes have Wi-Fi connectivity available
- Many college libraries now have separate Internet connections for various uses. Based on the data provided by the respondents, it can be observed that most libraries offer a separate internet connection that allows users to access a range of services. Furthermore, other online duties are carried out by libraries, including as acquisition, circulation, and physical verification. It has been noted that most of the chosen libraries make substantial use of the internet across a wide range of applications.

1.15 CONCLUSION

1. In society, libraries are well known for gathering and conserving information. These institutions provide a continual stream of knowledge that everyone, regardless of location or time, may easily access. However, there are a number of obstacles to the successful automation of libraries, including the requirement for good planning, a sound budget, a lack of knowledge of the accepted formats, and a lack of competent or trained labor.

2. From the study's results, the researcher deduced that most college libraries use the cataloging and circulation modules. More libraries might use KOHA in the future since it is an open-source software.

3. Librarians must evaluate their automation requirements and plan the selection and deployment of automation systems (information and communication technology) in order to offer customers more effective and superior services. The priorities and objectives of the organization must be met by these systems. It's undeniable that real change is occurring. College libraries are now realizing that automation of their collections is unavoidable and that they cannot ignore the shift in fear of being cast off as outdated.

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