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28, 29 October 2014, Bandar Lampung, Indonesia

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Bandar Lampung University, Indonesia

In coorporation with :

THE UNIVERSITY OF KITAKYUSHU

3rd ICETD 2014

The Third International Conference On Engineering And Technology Development

28 -29 October2014
Bandar Lampung University (UBL)
Lampung, Indonesia

PROCEEDINGS

Organized by:

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PREFACE

The Activities of the International Conference is in line and very appropriate with the vision and mission of Bandar Lampung University (UBL) to promote training and education as well as research in these areas.

On behalf of the Second International Conference on Engineering and Technology Development (3rd ICETD 2014) organizing committee, we are very pleased with the very good response especially from the keynote speaker and from the participans. It is noteworthy to point out that about 80 technical papers were received for this conference.

The participants of the conference come from many well known universities, among others : University Kebangsaan Malaysia – Malaysia, IEEE – Indonesia, Institut Teknologi sepuluh November – Indonesia, Surya Institute – Indonesia, International Islamic University – Malaysia, STMIK Mitra Lampung – lampung, Bandung Institut of Technology – Bandung, Lecture of The Malahayati University, B2TP – BPPT Researcher – lampung, University of Kitakyushu – Japan, Gadjah Mada University – Indonesia, Universitas Malahayati – Lampung, Lampung University – lampung,

I would like to express my deepest gratitude to the International Advisory Board members, sponsor and also to all keynote speakers and all participants. I am also gratefull to all organizing committee and all of the reviewers who contribute to the high standard of the conference. Also I would like to express my deepest gratitude to the Rector of Bandar Lampung University (UBL) who give us endless support to these activities, so that the conference can be administrated on time

Bandar Lampung, 22 October 2014

Mustofa Usman, Ph.D
3rd ICETD Chairman

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Extreme Programming Study Method Case Study on Designing of Accounting Term Dictionary

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Abstract— ***Extreme Programming (XP) is a software development method that is simple and includes one of the agile methods pioneered by Kent Beck, Ron Jeffries, and Ward Cunningham. The main purpose of the Extreme Programming method is to reduce the cost of software changes, in traditional systems development methodologies, system requirements specified in the first phase of the project development and it is not changed. This means that the cost to the needs of the change that occurs in the later stages will be very expensive. The Results of this study are to determine how the weaknesses and strengths of the XP method of making an application accounting terms dictionary on a Smartphone.***

Keywords*— *XP, Accounting term, smartphone

I. INTRODUCTION

Agile Methods are developed for the traditional methodology, there are many things that make the development process can't be managed properly as the user desires. This methodology has been pretty much grown, they are:

1. *Extreme Programming (XP)*
2. *Scrum Methodology*
3. *Crystal Family*
4. *Dynamic Systems Development Method (DSDM)*
5. *Adaptive Software Development (ASD)*
6. *Feature Driven Development (FDD)*

Extreme Programming (XP) is a software development method that is simple and includes one of the agile methods pioneered by Kent Beck, Ron Jeffries, and Ward Cunningham. XP is one of the agile methods are the most widely used and became a very famous approach. The goals of XP is a team formed between small to medium sized course, not necessary to use a large team. It is intended to deal with unclear requirements and the change of requirements very quickly [1]

The main goal of XP is for a down the cost of a change Software.
In traditional systems development methodologies, system requirements specified in the early stages of project development and these permanent. This means that the cost of a change in requirements that happened to next stage will be an expensive. XP is directed for a lowering the cost of a change by introducing the basic values, principles and practical. By applying an XP, the development of a system must be more flexible to changes in

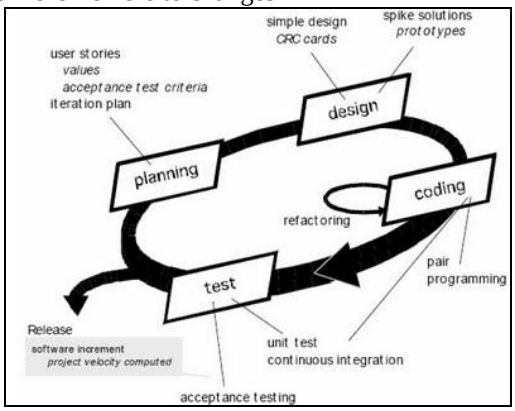

Fig1. Extreme Programming Process

II. MATERIALS AND METHODS

2.1 Literature Review

2.1.1 *Extreme Programming (XP)*

According to the Pressman [4] Extreme Programming processes are:

1. *Planning*

   This phase is started with *listening* is a collection activity requirements (needs) of a system that allows users of the technical team to understand the business context for a XP system and get a clear picture of the main features, functionality, and desired output. Listening leads to the creation of a collection of stories (usually also known as user stories) that describe the features, functionality, and the desired output for the system want to build.

2. *Design*

XP encourages the use of CRC cards (Class-Responsibility-Collaborator), where the CRC cards are used to identifying and organizing object-oriented classes. CRC card is only to design a system that is generated as part of the XP process.

3. *Coding*

The key Concepts for coding activity is a pair programming. XP recommends two persons to work together to create a code in a story. This concept provides a mechanism for solving a problem in real time (two or more people better than themselves) and quality assurance in real time.

4. *Testing*

XP acceptance tests specified by the users of the system and focuses on the features and functionality of the overall visible and was reviewed by the users of the system. *Acceptance tests originated of the user stories that have been implemented as part of the release system*

2.1.2 The Advantages of the XP Method

The target Extreme Programming is a team formed between small to medium sized course, do not need to use a large team. It is intended to deal with unclear requirements and the requirements changes very quickly. Extreme Programming is an agile method the most widely used and became a very well-known approach. XP is very minimum of documentation. This is accomplished to keep the agile methodology, because if it gets too much documentation (formal), then a software development methodology can no longer be classified in agile methods.

Every change or additional the functions and features can be delivered directly by outside the customer without having to make a formal letter which stated the request additions and changes. The developer can also respond instantly without having a formal statement, when it is also in accordance with the practice of collective ownership, although the currently a programmer may not be in place, the change or addition to the functions in the program code can be done by anyone who is ready.

2.1.3 The weakness of the XP method

1. *Developers should always be ready to change because change is always appreciated*.
2. Can not make a detailed code at the beginning (the principle of simplicity and also suggestions for doing what is necessary same day).

2.2 Reseach Method

The research method used in this research is descriptive method. Where is research descriptive study intended to describe the phenomena that exist, both natural phenomena and man-made phenomena. The phenomenon could be the shape, activity, characteristics, changes, relationships, similarities, and differences between one phenomenon with another phenomenon [2].

2.3 Implementation of XP on the Accounting Terms Dictionary

1. Planning

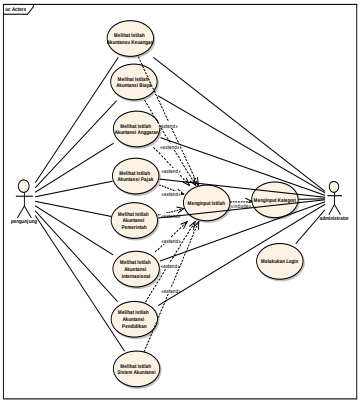

Fig. 2 Use Case Diagram

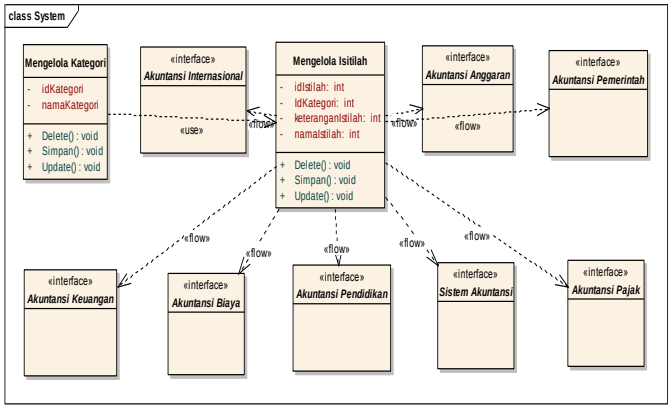

Fig 3. Class Diagram

2. Design

Fig 4. Home dministrator

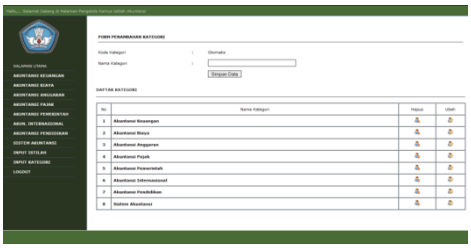

Fig 5. Input Category of Accounting Term

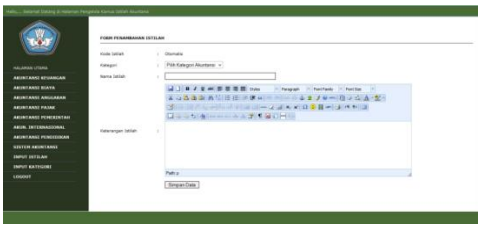

Fig 6. Input Page of Accounting Term

Fig 7. The main menu and Accounting Term

Fig 8. Accounting Term Detail page

3. Coding

After designing method done, then it will made the coding to make the program. Coding made with the PHP programming language.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta name="viewport"
content="width=device-width,
initialscale=1">
<title>Kamus Istilah Akuntansi</title>
<link rel="stylesheet"
href="themes/kamus.min.css" />
<link rel="stylesheet"
href="http://code.jquery.com/mobile/1.3.
2/jquery.mobile.structure-1.3.2.min.css"
/>
            <script
src="http://code.jquery.com/jquery-
1.9.1.min.js"></script>
            <script
src="http://code.jquery.com/mobile/1.3.2
/jquery.mobile-1.3.2.min.js"></script>
      </head>
      <body>
      <div data-role="page" data-
theme="a">
                  <div data-
role="header" data-
position="inline"><img
src="images/banner.jpg" width="100%"
class="ui-li-icon">
                  <a href="index.php"
data-icon="home" data-iconpos="notext"
data-direction="reverse">Home</a>
                  <a href="#" data-
icon="search job vacancy" data-
iconpos="notext" data-rel="dialog" data-
transition="fade">Cari Semua
Kategori</a>
                  <h1>Kategori Istilah
</h1>
      </div>
<div data-role="content" data-theme="a">
<ul data-role="listview">
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Keuangan</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Biaya</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Anggaran</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Pajak</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Pemerintah</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Internasional</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Akuntansi Pendidikan</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/money.png" class="ui-li-
icon">Sistem Akuntansi</a></li>
<li><a data-ajax='false' href="#" data-
transition="pop"><img
src="images/group.png" class="ui-li-
icon">Tentang Kami</a></li>
```

```
</ul>
</div>
<section><footer data-
role="footer"><h2>Copyright © 2013
Created By <a
href="http://blog.binadarma.ac.id/usman"
>Usman</a></h2>
</footer>
</section>
</div>
</body>
</html>
```

4. Testing

Software testing is meant to test all the elements that made the software is already in accordance with the expected. Software testing in this study using Black Box testing method. Black box testing is a fundamental aspect of software testing without considering internal logic structure of software. This method is used to find out whether the software is working properly. Here is one of the results of tests performed using the black box testing:

1. Login testing

TABLE 1
PENGUJIAN LOGIN

Input	Expected	observation	conclusion
Data (Correct)			
Username **holistic** ***Password*** **correct**	Showing page of users based on access	Users based on the access page displayed	Accepted
Data (incorrect)			
Username **holistic** ***Password*** **incorrect**	Displays messages username or password incorrect	Username or password incorrect message displayed	Accepted

2. Data input Testing Category

TABLE 2
DATA INPUT TESTING CATEGORY

Input	Expected	observation	conclusion
Data (Benar)			
Input **data**	The data can be saved into the database	The data storage can be done	Accepted
Update **data**	Data can be converted into the database	The data changes can be performed	Accepted
Delete **Data**	The data can be deleted from the database	The Elimination of data can be done	Accepted

III. CONCLUSIONS

The results of this research that XP has some strengths and weaknesses, the Additional advantages of XP Establish good communication with clients, Lowering the cost of development, Improving Communication and the nature of each respect among developers, the Additional weaknesses while XP cannot make a detailed code at the beginning.

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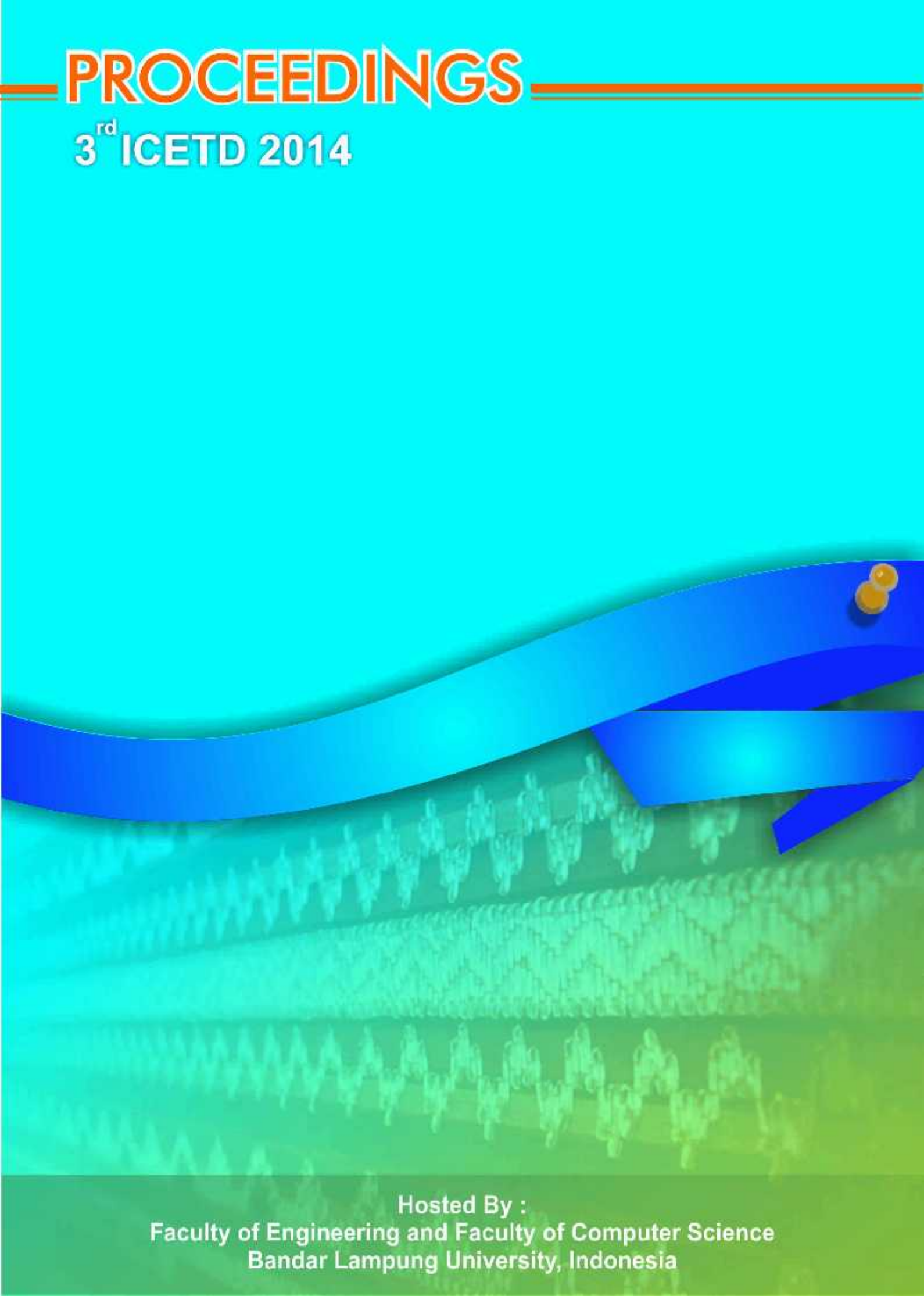

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