Application of Messaging Based on Web Service

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Abstract-Nowadays, information being so important to people, if we have information automatically we have power. Looking to the issue that information is growing rapidly everyday, we have innovation to make a messaging feature to help people do an exchange about information. Our messaging feature was made based on web service, so the feature will work properly not only in the web application, but also in other programming languages especially for mobile applications. This feature was made to help IT Directorate to share the information between the members. Hopefully this system can make a better way to share the information, especially in IT Directorate itself.

I. INTRODUCTION

Information become very important this day. One of the effective way to share information is by using messaging features (e-mail, SMS, Chatting, etc.).According to the fact that says information is power, we as the team who work for internship in IT Directorate have one innovation about messaging system. The system can accommodate people to share information, especially for people of BINUS Group. This system's focus is about the web service, so hopefully this messaging feature can be held in other gadget and make it a multiplatform messaging that can help people of BINUS to share information, help the study activities in BINUS University, help to do some research in IT Directorate, etc.

Our system have some features. First, create message and send it to a person with his/her BINUS ID (such as NIM(Student's Code), Lecturer's Code, etc.). Second is create message and send it to a class, this feature will help lecturers to contact their class' students individually. Third is create message and send it to people of BINUS who have the same interest as the sender, this feature will help researcher or everybody who have information and want to share it to people who have same interest as the sender. The message can be sent with the three features above simultaneously, so the sender no need make a new message and send it to different person or class and so on.

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II. METHODS

Requirement analysis

In our opinion, as user of messaging feature in *binusmaya*, there are several issues about that system. First, we cannot make a message and send them to other BINUS' people. Second, we cannot reply to the sender of message. So according to the issues, we think it will be great if we make a system with some features to accommodate that issues. So we make a messaging system with three main features that we have already discuss on the introduction.

System analysis and design

We make some diagram based on Roger Pressman Theory (1), but seems the theory is for Object-Oriented Programming so we make some modification on the diagram.

1. Data model

There is two diagram in data model, first use case diagram and second activity diagram. We made a use case diagram to explain what member can do in our system.



Diagram 1 : Use Case Diagram, the data model figure what member can do in our system.

2. Flow model



Diagram 2: Data Flow Diagram, data flow diagram figure about data flow of our system.



Diagram 3:MVC Diagram, mvc diagram is our modification, actually this diagram should be class diagram. Considering that we are not using any object in PHP so we made a modification about this diagram, figure of database and function.

4. Behavior model



Diagram 4:State Diagram – Member, figure about what member can do after login.



Diagram 5:State Diagram - Create Message, figure about how to make a message.



Diagram 6:State Diagram - Reply Message, figure about how to reply a message.



Diagram 7:State Diagram - View Inbox, figure about how to view inbox.



Diagram 8:State Diagram - View Sent Message, figure about how to view sent message.



Diagram 9:State Diagram - View Trash, figure about how to view trash.



Diagram 10:State Diagram - Delete Message, figure about how to delete message.

Code generation

After make the system design so we implement that design as a code program. We use PHP to make the web application, and PHP NuSOAP to make the web services.

Testing

All of the member of team test the program using White Box and Black Box testing.

Implementation

This system have not been implemented yet.

Maintenance

We will do the maintenance after the system be implemented.

III. RESULTS

We have no results yet.

IV. DISCUSSIONS

There are several issues during making the program. At the beginning, we were not truly understand the concept about web service, so we were struggling to understand it. Beside the technical issue, we had a limit about coordinating the team, especially when made a meeting schedule between us.

V. CONCLUSIONS AND RECOMENDATIONS

This messaging feature can be held on other programming language, because the system based on web service so hopefully this system will be a multiplatform messaging later. The system have three main features, first sending message to people of BINUS individually, second sending message to class in BINUS, third sending message to people of BINUS who have same interest as sender.

The system is making a better way to share information so it is good to use this feature for helping you sharing the information that you have. This messaging system can be implemented in *binusmaya* so everyone of BINUS' people can use this system easily.

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