

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation

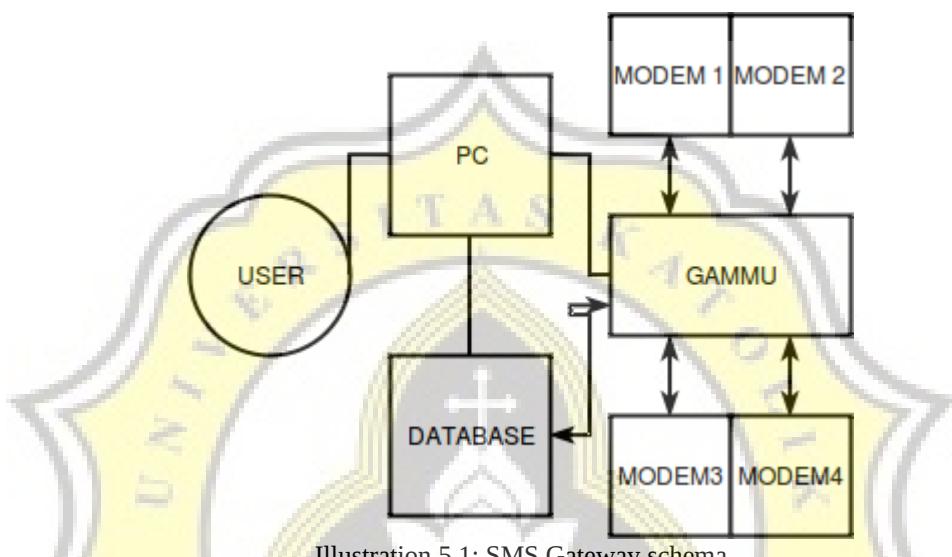


Illustration 5.1: SMS Gateway schema

This project need computer as a server, database, and modem for the succeed. The modems must be plugged into computer, then gammu read the connection between computer and modem. Gammu work under database. When database updated, gammu read it and process it. Gammu need to be config, so modem can be identify by gammu. Here some code must be config,

```
1. [gammu]
2. port = /dev/ttyUSB0
3. connection = at115200
4. synchronizetime = yes
5.
6. [gammu1]
7. port = /dev/ttyUSB1
8. connection = at115200
9. synchronizetime = yes
```

These code above are code to config gammu with 2 modems plugged. Port is set from where modem is plugged, connection can be replace with suitable config which written on gammu's document where can found on gammu website.

gammu-smsdrc

```

1. [gammu]
2. port = /dev/ttyUSB0
3. connection = at115200
4. debuglevel = 0
5.
6. [smsd]
7. Service = sql
8. Driver = native_mysql
9.LogFile = /var/log/smsdlog
10.      User = root
11.      Password = abcdef
12.      PC = Localhost
13.      Database = smsGateway
14.      PhoneID = telkomsel

```

gammu-smsdrc1

```

1. [gammu]
2. port = /dev/ttyUSB1
3. connection = at115200
4. debuglevel = 0
5.
6. [smsd]
7. Service = sql
8. Driver = native_mysql
9.LogFile = /var/log/smsdlog
10.      User = root
11.      Password = abcdef
12.      PC = Localhost
13.      Database = smsGateway
14.      PhoneID = indosat

```

These code above are code to config gammu modem 1 and 2. Debuglevel is used for debug mode. 0 is default, and give no extra information, 255 is the max level. Service and driver are service would be used to store data in to SQL Database. LogFile is file which would written by debug. User, Password, PC, Database is data that gammu need to access database.

5.2 Testing

In this project there must be several test should to do such as add contact, add group, compose message.



Illustration 5.2: No contact on phonebook

From image above, there's no contact shown yet, means no contact have been save on database. To save contact into database, the user must add new contact, this process will shown in image bellow.

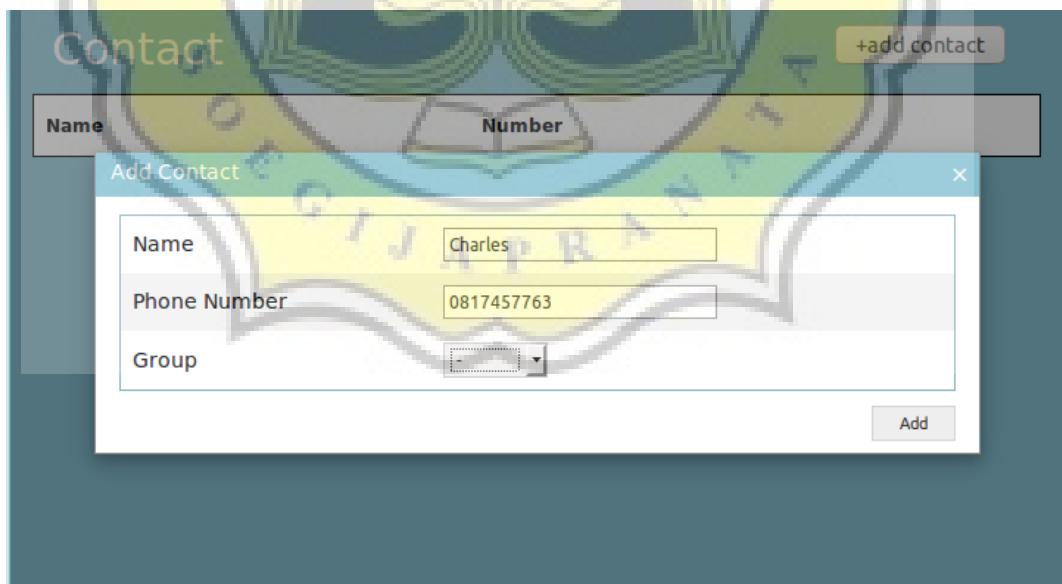


Illustration 5.3: Insert contact

From the image above show, to add a new contact user must input name, phone number and group if the contact is member of the group. If the user already fill all the add form then this project will saved the data into database, if the

contact is already exist in the database then this project will show notification "Contact is already saved with named Charles" if the name of those contact is Charles. If the contact is successfully to save in the database then the result can show in this project like image below.



Illustration 5.4: Contact added

Contact was succeed to save. Click delete on the right when contact wants to be deleted, and click the name of phonebook to edit the contact. The process to add a new group is same with the process to add a new contact. In image below will show the result from the group that already saved in this project.

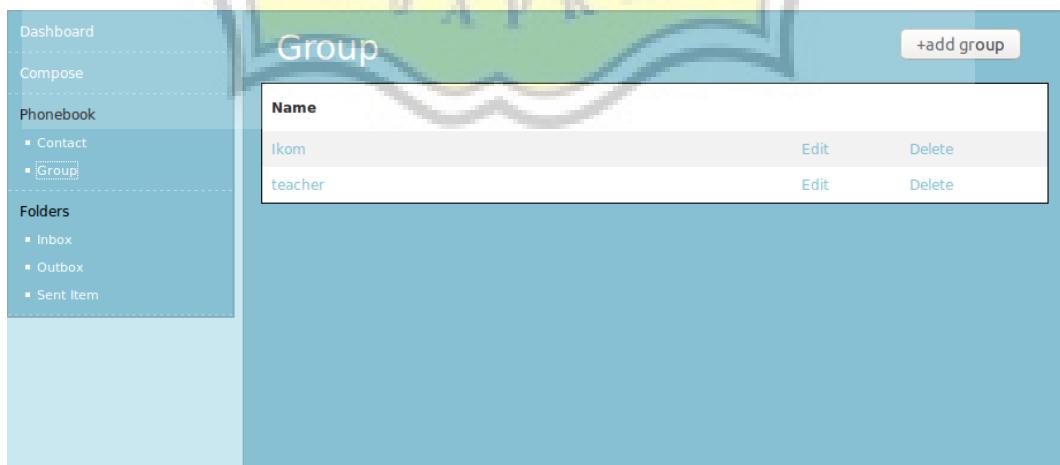


Illustration 5.5: Group menu

From image above, could be seen that there's 2 group have been created in this project. In image below will show the process to add a new group in this project.

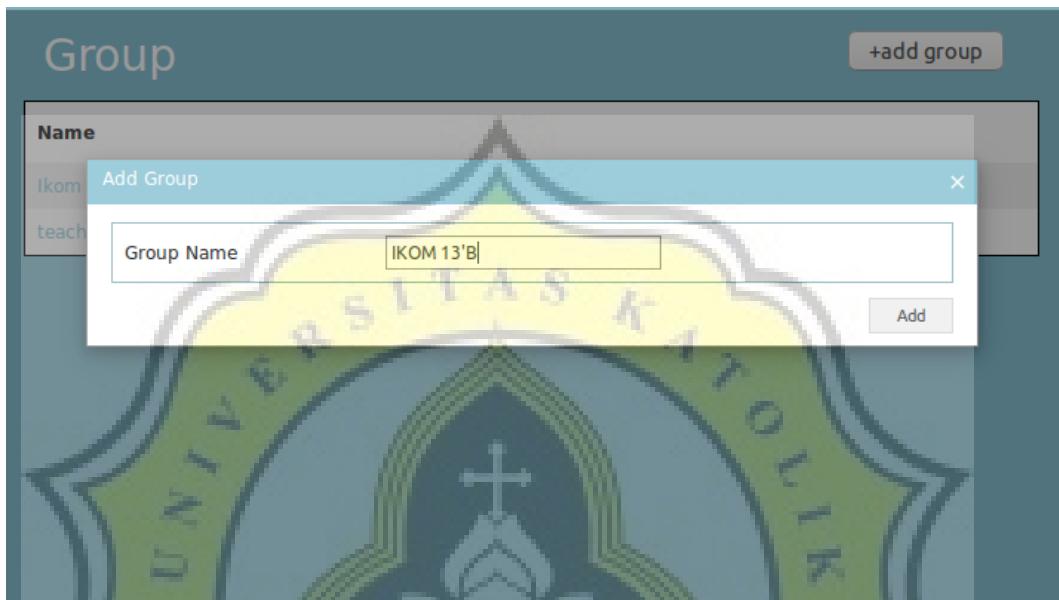


Illustration 5.6: Add group form

Same with the process to add a new contact, in this process user must input the name group that want to create. If the user already fill that form then this project will saved the data into database, if the group is already exist in the database then this project will show notification "Group have been created". If the group is successfully to save in the database then the result can show in this project like image below.

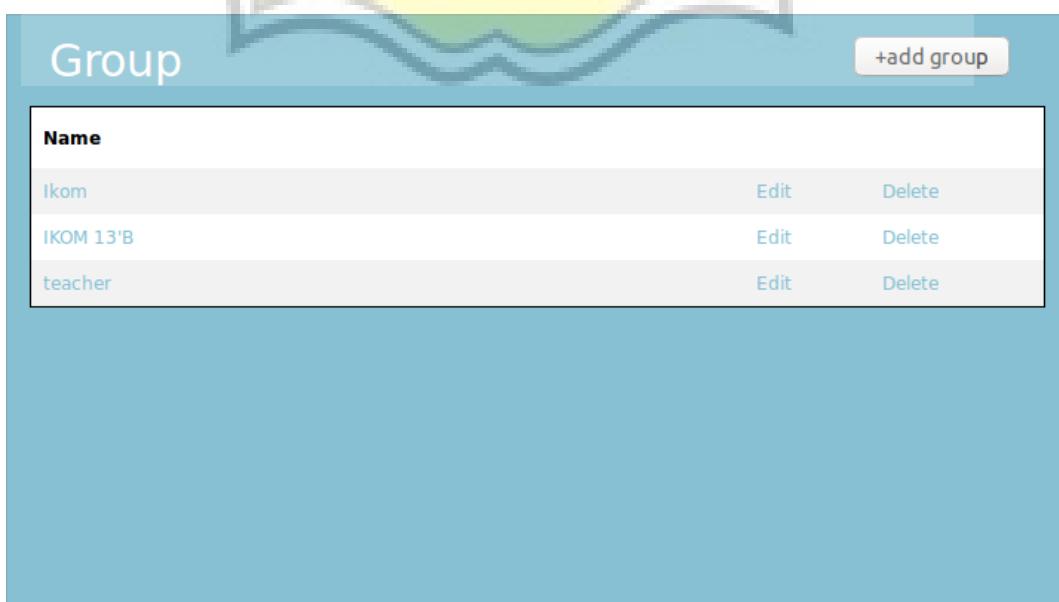


Illustration 5.7: Group display after create group

In image above is show all the group that saved in the database. Click on the name of the group to see what contacts are there. Click Edit to edit the name of the group, and delete to delete selected group. After the contact and group are created, the next menu in this project is to send the messages. In image below will show the send messages process.

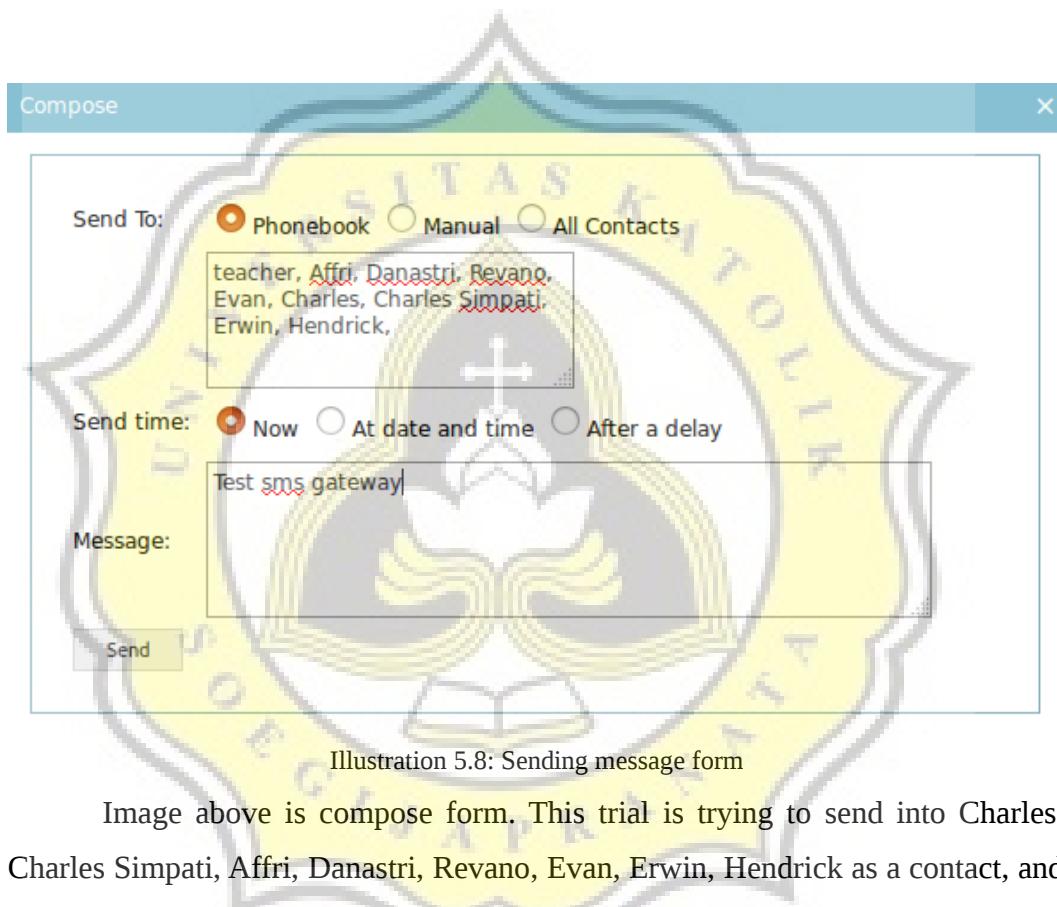


Illustration 5.8: Sending message form

Image above is compose form. This trial is trying to send into Charles, Charles Simpati, Affri, Danastri, Revano, Evan, Erwin, Hendrick as a contact, and Teacher as a group, where there are two contacts in it named Teacher Shinta with number 081578472016 and Teacher Rosita with number 08157655055.

InsertIntoDB	SendingTimeOut	DestinationNumber	TextDecoded	SenderId
2017-07-27 15:51:38	2017-07-27 15:51:38	+6285740951071	Test sms gateway indosat	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6287700221994	Test sms gateway xl	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6281578472016	Test sms gateway indosat	
2017-07-27 15:51:38	2017-07-27 15:51:38	+62817457763	Test sms gateway xl	
2017-07-27 15:51:38	2017-07-27 15:51:38	+628112885868	Test sms gateway telkomsel	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6281256821111	Test sms gateway telkomsel	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6287831979840	Test sms gateway xl	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6281227101594	Test sms gateway telkomsel	
2017-07-27 15:51:38	2017-07-27 15:51:38	+6281329655160	Test sms gateway telkomsel	
2017-07-27 15:51:38	2017-07-27 15:51:38	+628157655055	Test sms gateway indosat	

Illustration 5.9: Send message immediately

InsertIntoDB	SendingTimeOut	DestinationNumber	TextDecoded	SenderId
2017-07-27 16:36:12	2017-07-28 12:12:00	+6281578472016	Test send message using specific time indosat	
2017-07-27 16:36:12	2017-07-28 12:12:00	+628157655055	Test send message using specific time indosat	

Illustration 5.10: Send message with specific time

The process of compose will insert database into table outbox, as can see on image above, there are 10 messages which ready to execute by gammu. As can see on the image above, SenderID is differential. SenderID will auto generated itself by looking on destination number, then suit by each number's provider. As seen above there is a differential between illustration 5.9 and 5.10. As can see on illustration 5.9 time in InsertIntoDB and SendingTimeOut is same because send date is setted to now, but on 5.10 is different because send date is setted on send at date and time. When, modem succeed to execute, the datas on outbox will be moved into sent item.

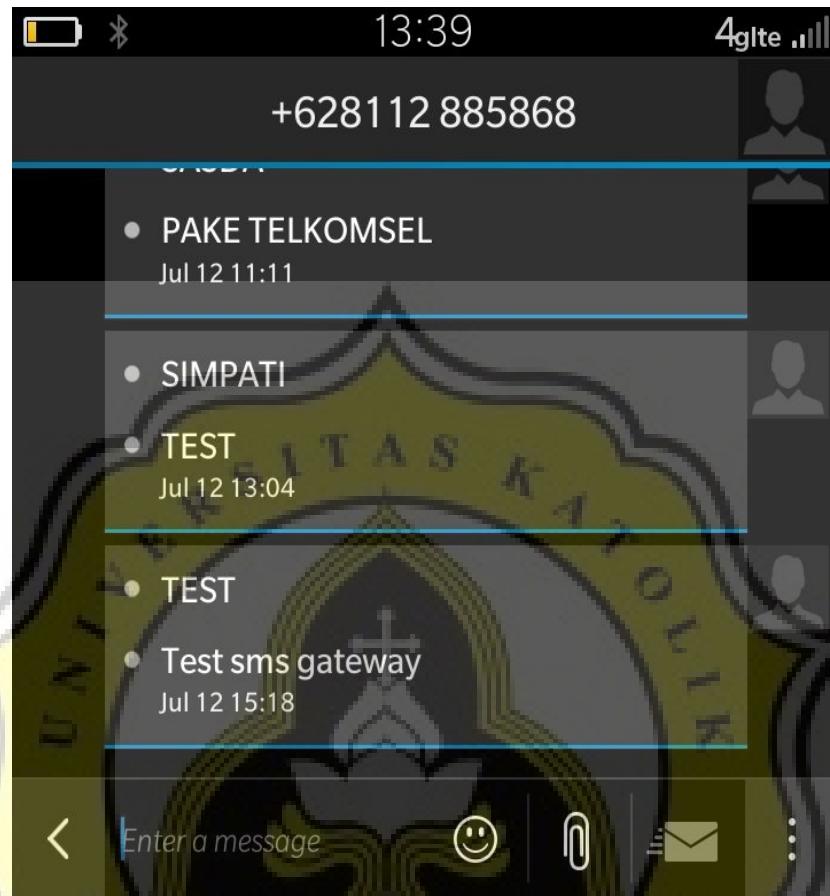


Illustration 5.11: Message from modem telkomsel

Image above is example of sms have been sent from gammu modem telkomsel.

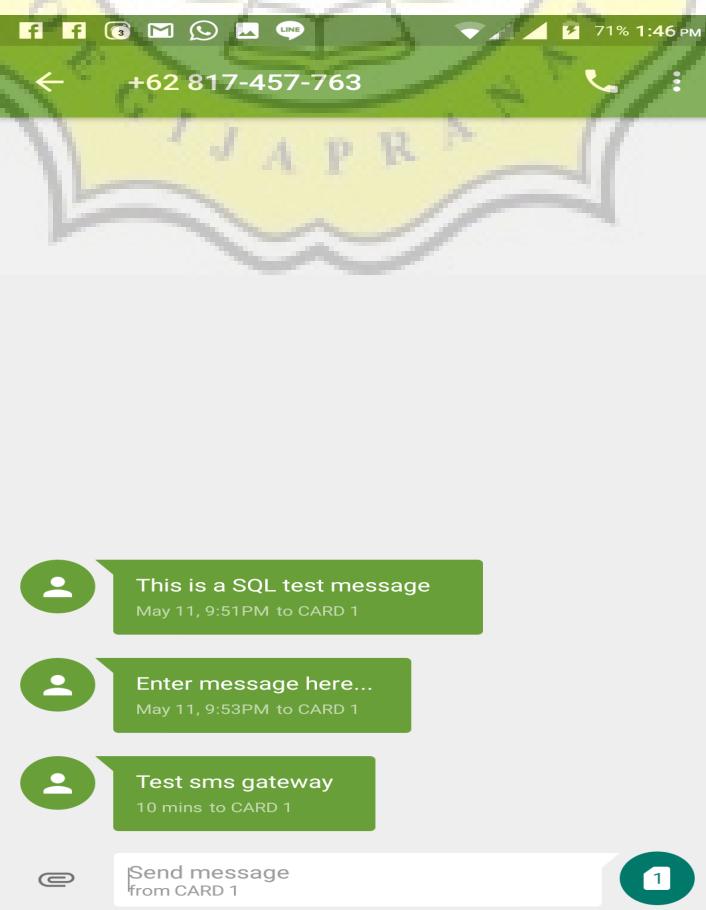




Image above is example of sms have been sent from gammu modem xl.