

# CHAPTER 5

## SOLUTION IMPLEMENTATION

### 5.1 Implementation Strategy

In order to develop the system, the author used a lot software tools and hardware with certain specification. The software tools that the author used are:

- Microsoft Windows XP Professional Service Pack 2 as the operating system.
- Microsoft Office Word XP 2002
- Microsoft Office Excel XP 2002
- Microsoft Office Vision 2003
- Microsoft Office Front Page XP 2002
- Macromedia Dreamweaver MX 2004
- Microsoft Notepad
- VertrigoServ 1.20
  - Apache
  - MySQL 3.23.47[2]
  - PHPMyAdmin 2.6.3-pl1[3]

Also, the hardware that is used in developing the system:

- Notebook with the necessary specification of:
  - Intel Centrino Core 2 Duo 1.66 MHz
  - RAM DDR2 512 MB

- Personal Desktop Computer with the necessary specification of:
  - Intel Pentium 4 LGA 2.66 MHz
  - RAM DDR1 1024 MB

In order to operate the system well, there is only one requirement that need to be fulfilled: any working computer that can connect to internet. The web-based tracking system provides great flexibility and easiness. The system can be accessed from anywhere with just internet connection.

## 5.2 Testing Implementation

The testing method that will be used to test the system is by using precondition and post condition testing method. It means, the author will input certain command to the system, and the result will be recorded, whether it return the correct result or not. This method of testing is also known as black-box testing. This mean the main point of the testing is to find out the result.

**Table 5.1 Black Box System Testing Table and the Results.**

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
1	Home Page	Open the homepage	Home Page opened	OK
2	Home Page Components	Open the homepage	Complete Home Page displays and links	OK

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
3	Home Page Components	Open "Berita dan Kabar"	"Berita dan Kabar" shown properly	OK
4	Home Page Components	Open "Profil Perusahaan"	"Profil Perusahaan" shown properly	OK
5	Home Page Components	Open "Tentang Kami"	"Tentang Kami" shown properly	OK
6	Home Page Components	Open "Hubungi Kami"	"Hubungi Kami" shown properly	OK
7	Tracking System Home Page	Open Tracking System Homepage	Tracking System homepage shown properly	OK
8	Tracking System Home Page	Input Tracking "ID Pengiriman"	Tracking result shown perfectly	OK
9	Tracking System Home Page	Cancelling input of "ID Pengiriman"	Input deleted	OK
10	Tracking System Home Page	Login into the account	Login successful	OK
11	Tracking System Home Page	Clearing Login information with cancel button	Login information cleared	OK

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
12	Tracking System Home Page	Login into the account with wrong username or password	Cannot login and back to the homepage	OK
13	Login feature	Admin's login	Show: Input Pengiriman baru, Update posisi pengiriman, Tambah Destination, Lihat Laporan pengiriman yang sedang dikirim, Lihat Laporan pengiriman yang telah terkirim.	OK
14	Login feature	Employees' Login	Show: Input Pengiriman baru and Update posisi pengiriman.	OK
15	Admin's Login	"Input Pengiriman Baru"	Go to input new entry page	OK
16	Admin's Login	"Update Posisi Pengiriman"	Go to update shipment position page	OK
17	Admin's Login	"Tambah Destination"	Go to add destination page	OK
18	Admin's Login	"Lihat Laporan pengiriman yang sedang dikirim"	Go to the report generator on sending shipment page	OK
19	Admin's Login	"Lihat Laporan pengiriman yang telah terkirim"	Go to the report generator on sent shipment page	OK
20	Admin's Login	Log Off	Back to Home Page	OK

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
21	Admin's "Input Pengiriman Baru"	Input the form with unique shipment ID	Input saved	OK
22	Admin's "Input Pengiriman Baru"	Input the form with used shipment ID	return error due to used ID	OK
23	Admin's "Update Posisi Pengiriman"	Input the the Shipment ID	Result is shown on the screen	OK
24	Admin's "Tambah Destination"	Input a new destination and the ID	Input saved properly	OK
25	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Show the report	Report shown properly	OK
26	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Sort the report by Shipment ID	Report Sorted by Shipment ID	OK

<b>No.</b>	<b>Testing Category</b>	<b>Pre Condition (Input)</b>	<b>Post Condition (Result)</b>	<b>Remark</b>
27	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Sort the report by Origin	Report Sorted by Origin	OK
28	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Sort the report by destination	Report Sorted by destination	OK
29	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Sort the report by sender Name	Report Sorted by sender name	OK
30	Admin's "Lihat Laporan pengiriman yang sedang dikirim"	Sort the report by shipment date	Report Sorted by Shipment date	OK
31	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Show the report	Report shown properly	OK

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
32	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Sort the report by Shipment ID	Report Sorted by Shipment ID	OK
33	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Sort the report by Origin	Report Sorted by Origin	OK
34	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Sort the report by destination	Report Sorted by destination	OK
35	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Sort the report by sender Name	Report Sorted by sender name	OK
36	Admin's "Lihat Laporan pengiriman yang telah dikirim"	Sort the report by shipment date	Report Sorted by Shipment date	OK

No.	Testing Category	Pre Condition (Input)	Post Condition (Result)	Remark
37	Employees' Login	"Input Pengiriman Baru"	Go to input new entry page	OK
38	Employees' Login	"Update Posisi Pengiriman"	Go to update shipment position page	OK
39	Employees' "Input Pengiriman Baru"	Input the form with used shipment ID	return error due to used ID	OK
40	Employees' "Update Posisi Pengiriman"	Input the the Shipment ID	Result is shown on the screen	OK
41	Employees' Login	Log Off	Back to Home Page	OK

### 5.3 Implementation Procedure (Documentation)



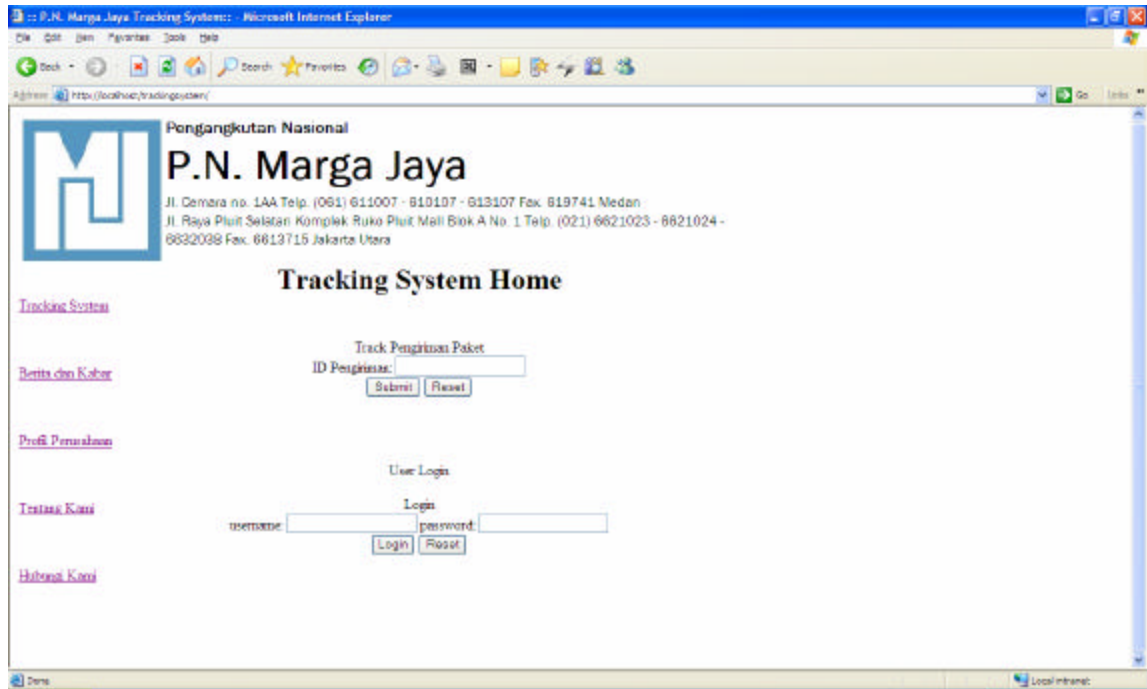


Figure 5.1 Home Page

This is the tracking system home screen. User can input ID pengiriman into the form (even without login). If the shipment is exist, then it will show something such as “Posisi pengiriman anda saat ini dari **Lampung** menuju **Padang**” and “**Pengiriman anda akan tiba dalam waktu 9 hari** as shown in figure 5.2

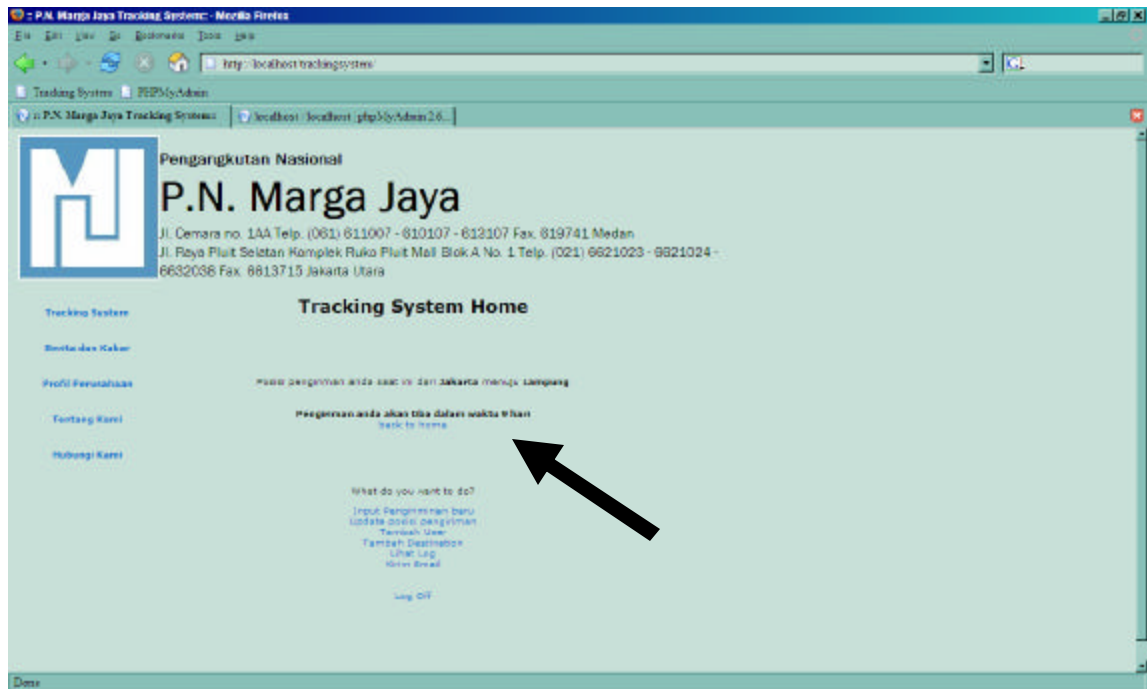


Figure 5.2 The exist shipment

If the shipment isn't exist, then it will show "Pengiriman tidak ditemukan. Harap periksa ulang kode pengiriman anda.", as shown in figure 5.3

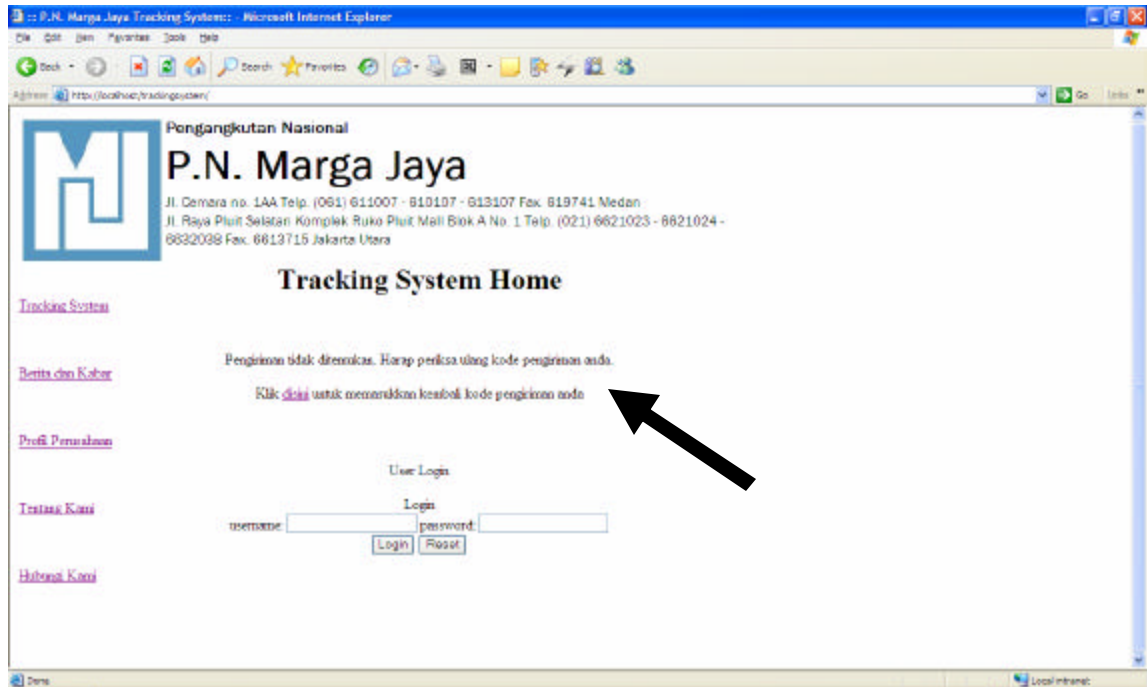


Figure 5.3 Non-existent shipment

However, figure 5.4 will be shown if the delivery is succeeded and reached the destination already by showing the message: “Pengiriman anda telah sampai di tujuan”

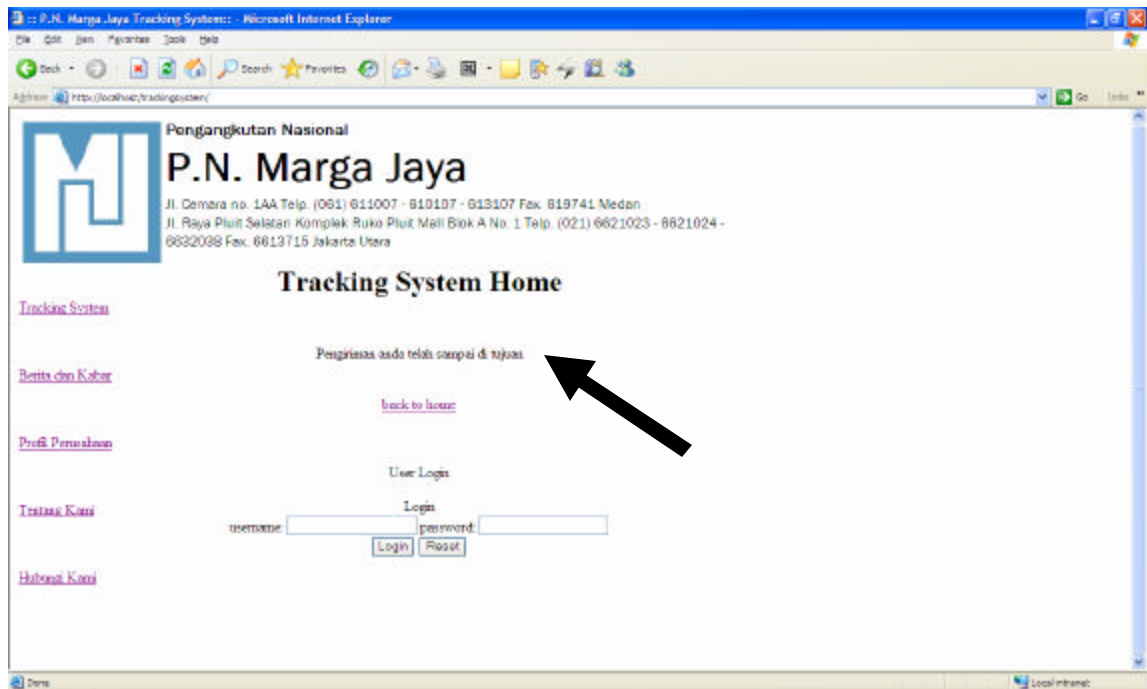


Figure 5.4 Reached Destination Shipments

If the user login correctly, then the user will be brought to a new menu, depending on the users. Administrator will be brought to the figure 5.5 screen

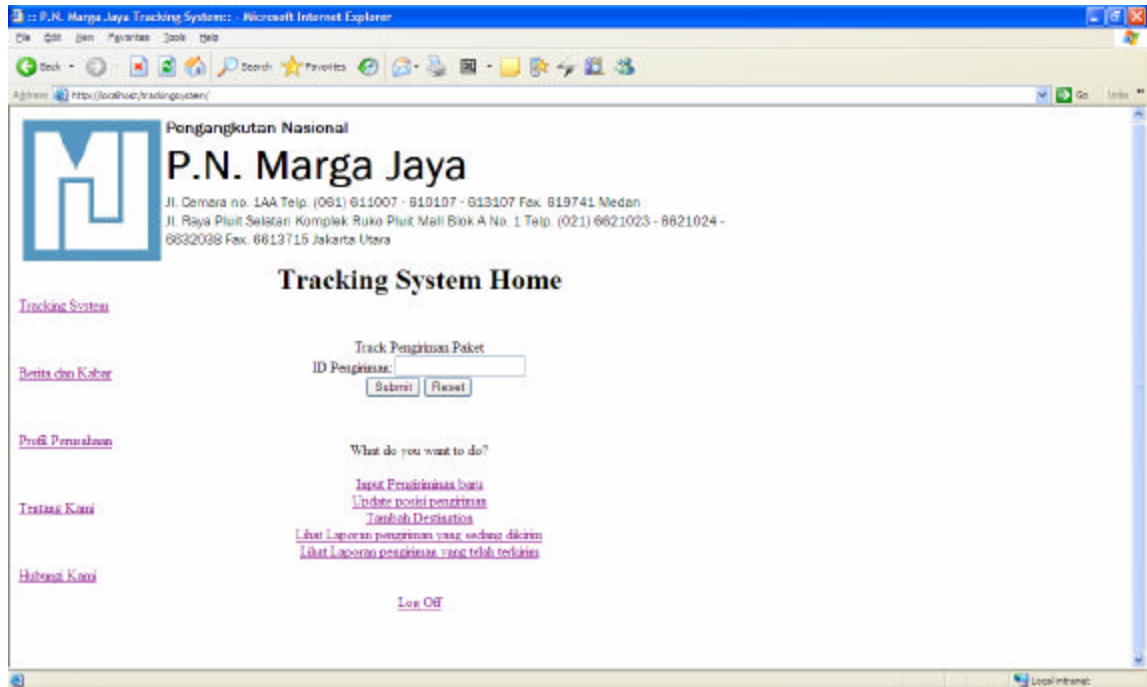


Figure 5.5 Administrator's page of features

While employees of certain shipping point will be shown figure 5.6 screen, due to some of the limited features that can be accessed by the certain shipping point employees

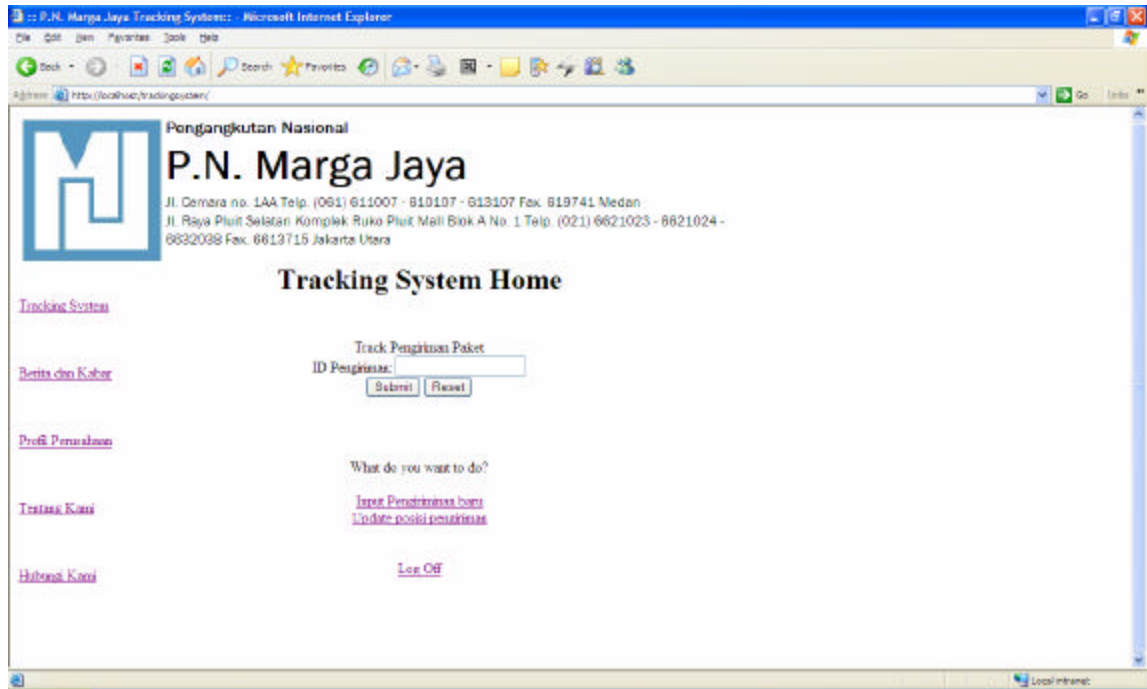


Figure 5.6 Employees' page of features

Both administrator and employees can update the shipping position, however, administrator can update the position in wherever the place such in figure 5.7

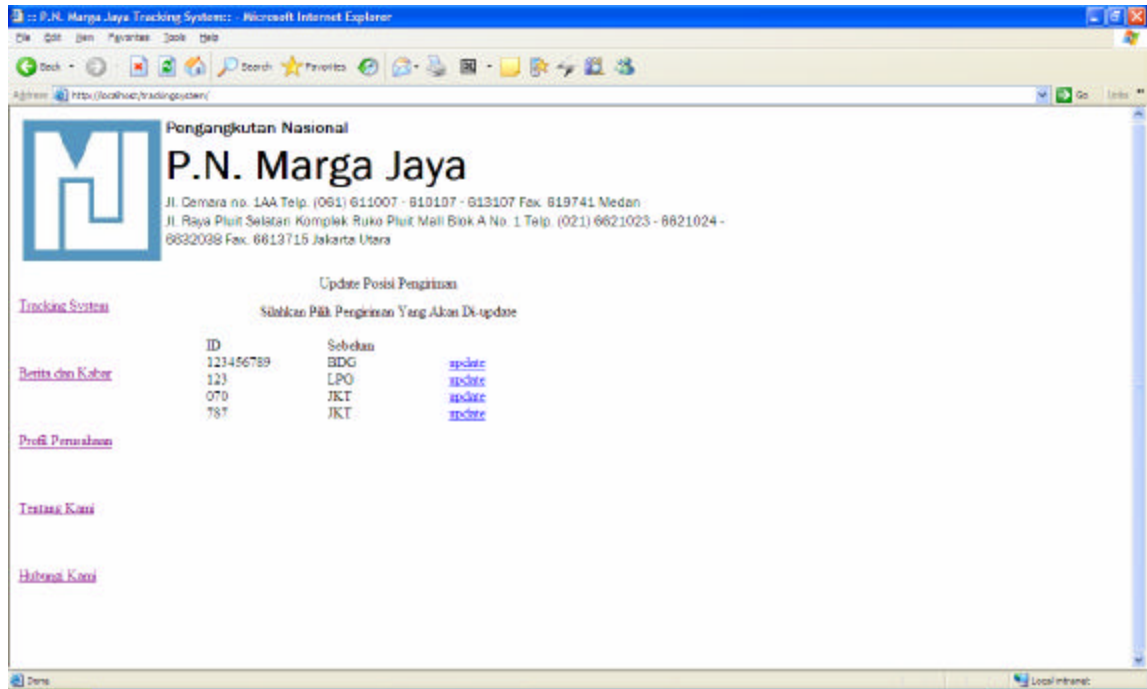


Figure 5.7 Administrator's position update Screen

While the users (employees) that are in the shipping point can update the shipment position in such figure 5.8

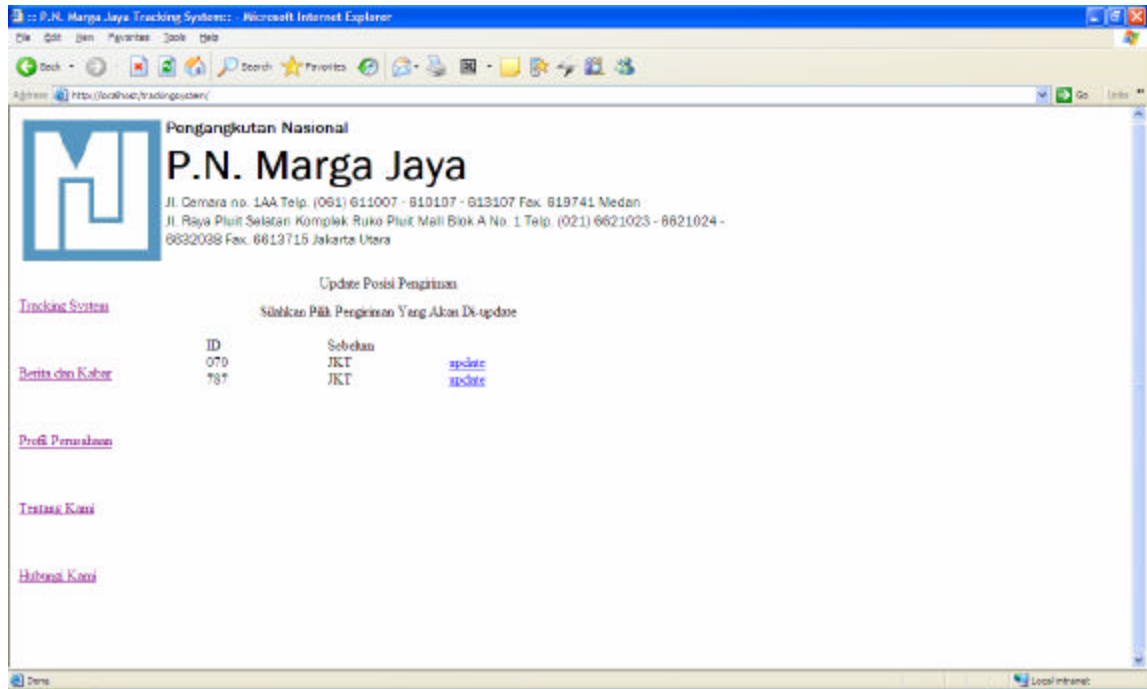


Figure 5.8 User's Position Update Screen

However, if there are no shipment in the place then there will be "Tidak ada pengiriman baru yang melewati tujuan ini" message as in figure 5.9



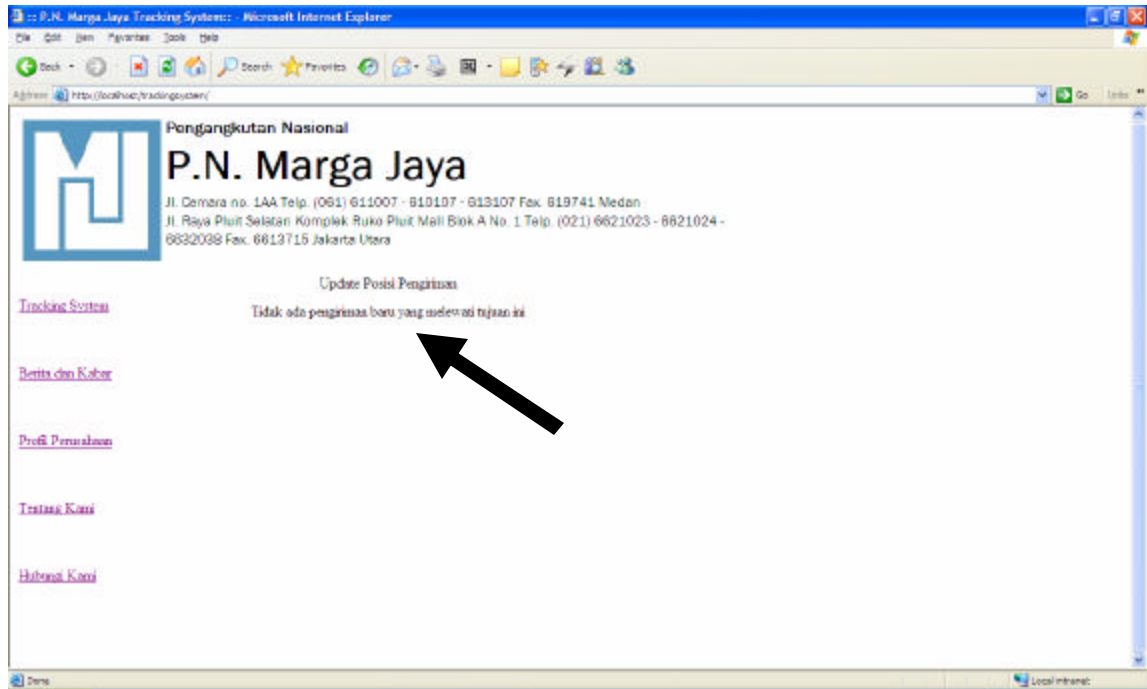


Figure 5.9 User's Position Update Screen when no shipment

Employees can input a new shipment to the system. Once inputted, then we already know where the shipment is originated by the login log. Example, If a Jakarta employee were to input shipment, then the origin will be from Jakarta, and there is no way to change that, as we can observe in figure 5.10

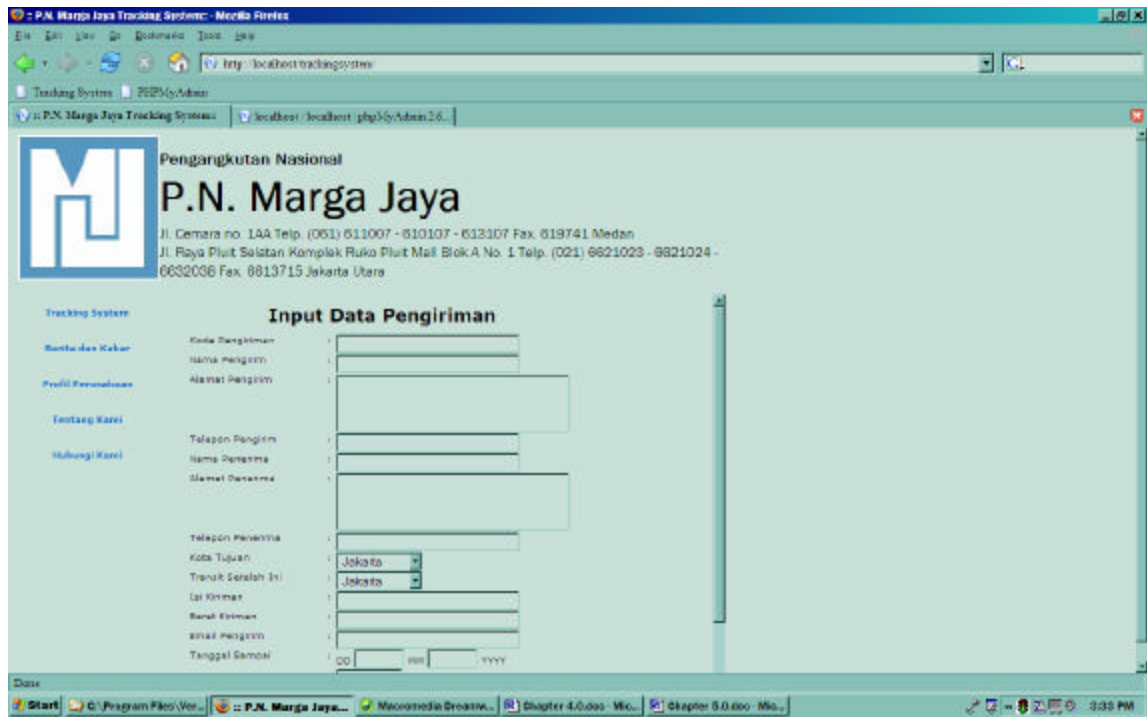


Figure 5.10. Input Shipment Screen

Administrator can also add more shipping points with “Tambah destination” menu, and will be directed to figure 5.11

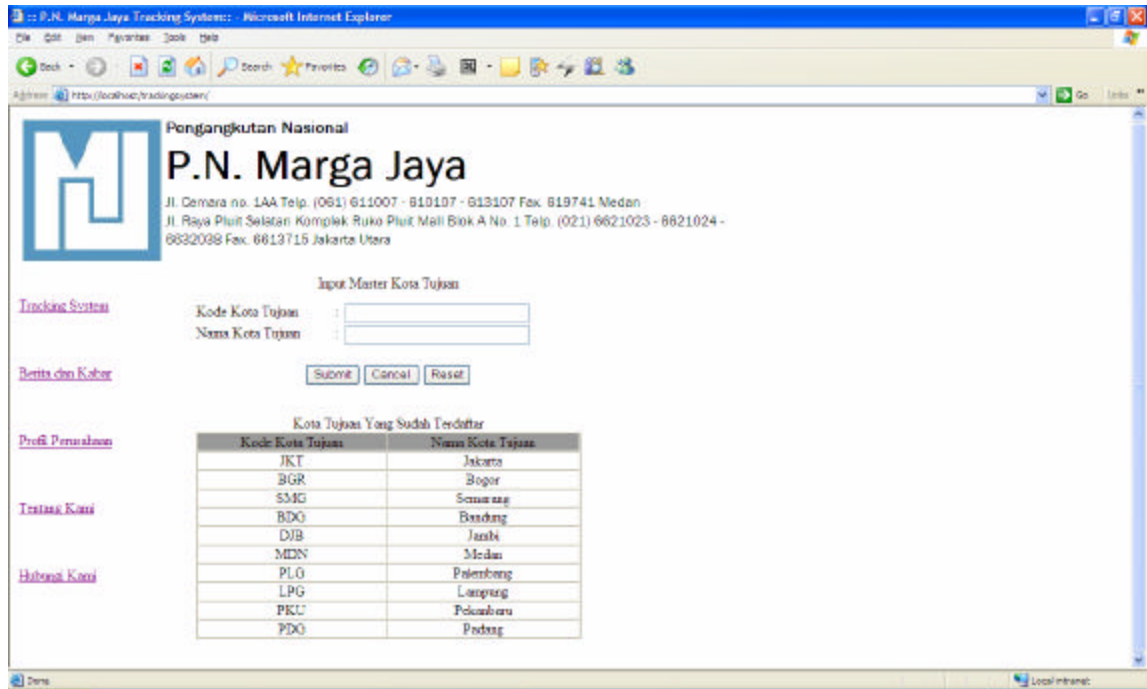


Figure 5.11 Admin's add destination screen

Administrator can also request a report of the shipping and print it out as in figure 5.12.

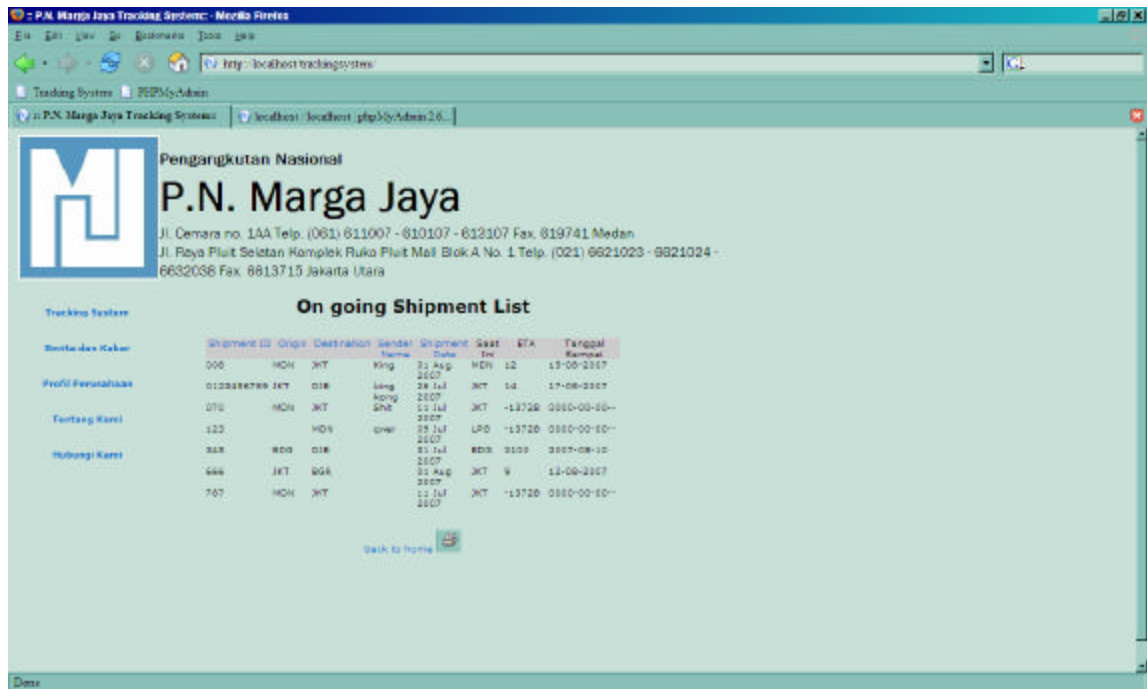


Figure 5.12 Ongoing shipment List

At almost final stage of the documentation, the website components beside the tracking system: “Berita dan Kabar”, “Profil Perusahaan”, “Tentang Kami”, and “Hubungi Kami”, as figured in figure 5.13, 5.14, 5.15, and 5.16.

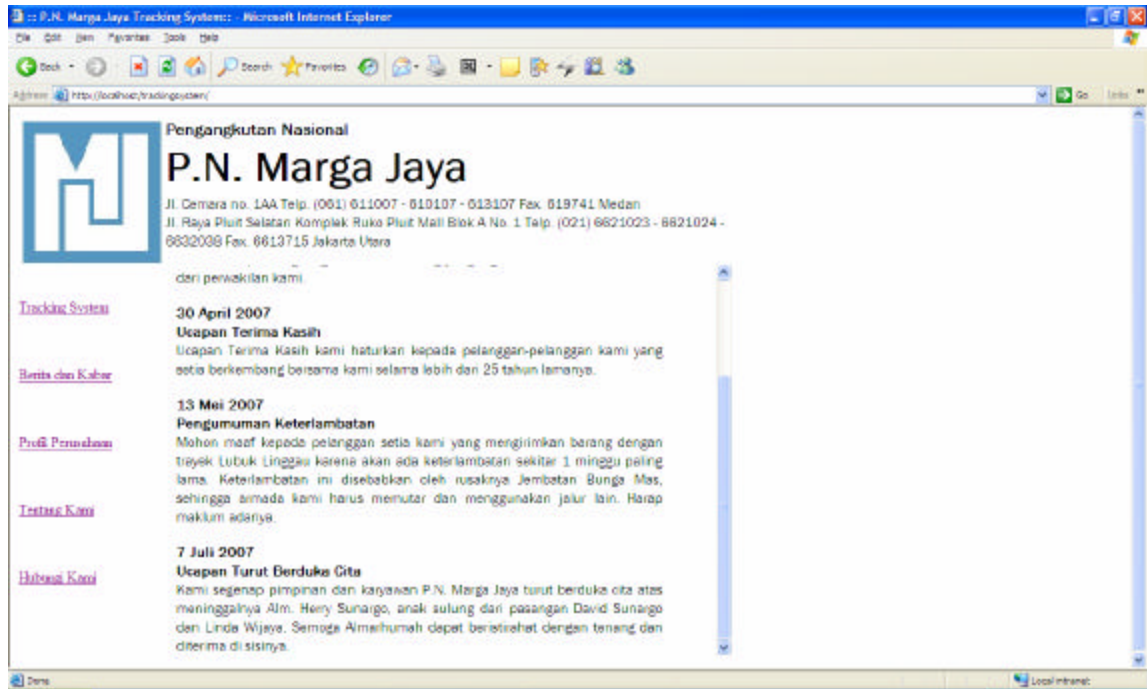


Figure 5.13 Berita dan Kabar



Figure 5.14 Profil Perusahaan

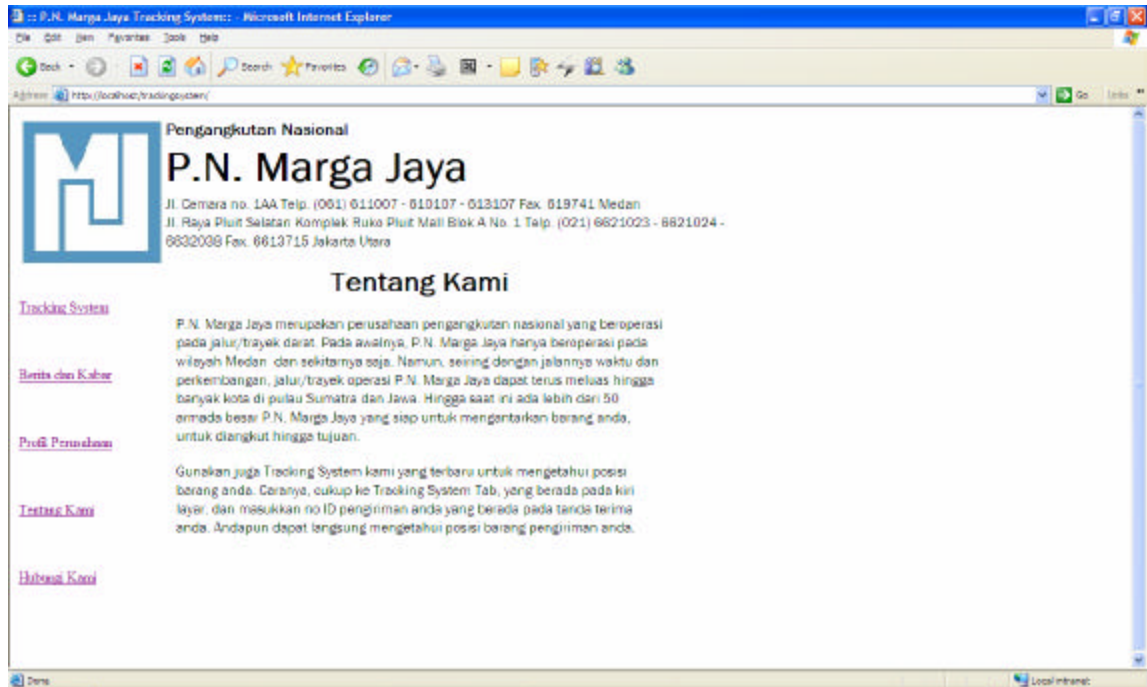


Figure 5.15 Tentang Kami

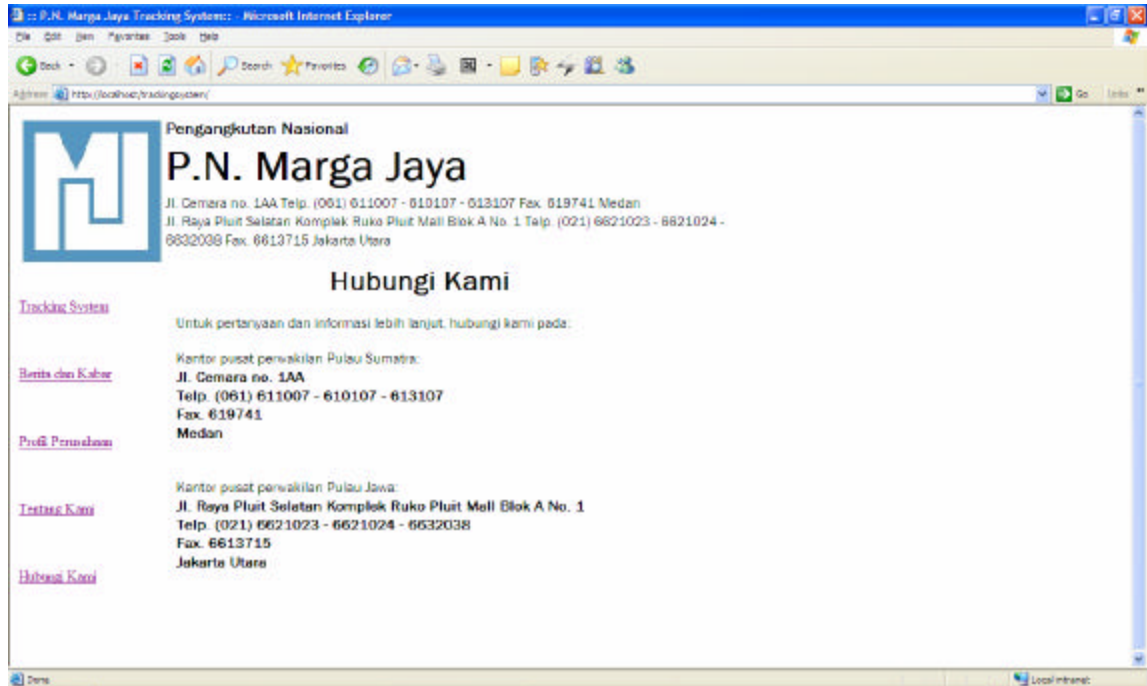


Figure 5.16 Hubungi Kami