

THE RESULTS OF STUDENT MOBILITY REPORT

**IMPLEMENTATION OF LEARNING MYSQL DATABASE AT
NANJING VOCATIONAL COLLEGE OF INFORMATION AND
TECHNOLOGY FOR THE CREATION A WEBSITE IN THE
HEROS RENT CAR**



By:

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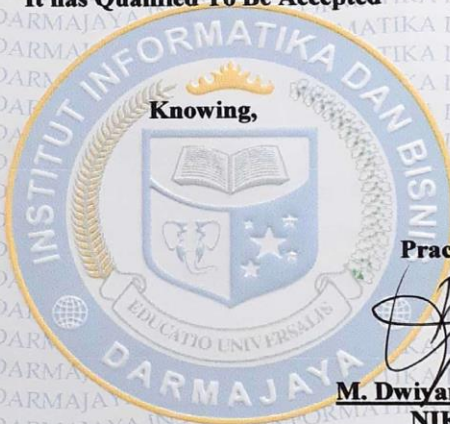
**COMPUTER SYSTEM DEPARTMENT
FACULTY OF COMPUTER SCIENCE
INFORMATICS AND BUSINESS INSTITUTE DARMAJAYA
BANDAR LAMPUNG
2021**

SIGNATURE APPROVALS
RESULTS OF REPORT
PRACTICE WORK OF STUDENT MOBILITY

**IMPLEMENTATION OF LEARNING MYSQL DATABASE AT NANJING
VOCATIONAL COLLEGE OF INFORMTION AND TECHNOLOGY FOR THE
CREATION A WEBSITE IN THE HEROS RENT CAR**

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CURRICULUM VITAE

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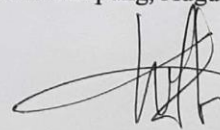
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I hereby declare that all the information i have presented above is correct.

Bandar Lampung, August 17th 2021



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SUMMARY

In undergoing the student mobility program for 1 semester at Nanjing Vocational College of information and Technology (NJCIT). The author has the opportunity to study the use of MYSQL Workbench 8.0 CE which is used to learn about creating a database in the Database Technology course, where the author is required to submit in a major assignment at the end of the semester in the course.

The final project that the author implements in this report is the creating website using the PHP programming language and MYSQL as the database which will help Heroes Rent Car in data management for their business. so, that it can facilitate their work. in making this website using several software such as Xampp with version 7.4.22 as a stand-alone server (localhost), consists of Apache HTTP programs (server), MySQL (database). Before building a website, a database is needed. for the database the author uses the MYSQL Workbench 8.0 CE application as taught in the Database Technology course.

PREFACE

Praise the author, pray to god almighty who has bestowed his gift so that the author can complete a report practice work of student mobility entitled “ Implementation Of Learning Mysql Database At Nanjing Vocational College Of Informtion And Technology For The Creation a Website in The Heros Rent Car ”. This report is compiled as a report on practical work carried out in the country of China, namely at the Nanjing Vocational College Of Information and Technology campus which was held from March 11th, 2021 to June 29th, 2021.

The report was prepared with help from different sides, and the writer expressed gratitude to:

1. Mr. Ir. Firmansyah Y.A., MBA., MSc., as the Chancellor IIB Darmajaya.
2. Mr. Dr. RZ. Abdul Aziz, ST., MT., as the Vice Chancellor I IIB Darmajaya.
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8. Mr. Novi Herawadi Sudibyo,S.Kom.,M.Ti thank you for allowing me to do research on Heros Rent Car.
9. Author’s parent are Mr. Aminoto and Mrs. Fatimah who have provided prayers, motivation and support for the success of the author.
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during their studied at Nanjing Vocational College Of Information and Technology (NJCIT).

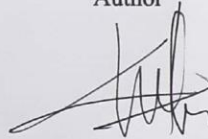
11. Melina, Heri and Nasril and all my classmates in the courses the author took who always help the outhor while studied at Nanjing Vocational College Of Information and Technology (NJCIT).

12. All the parties taht the author cannot mention one by one, and have helped the completion of this report.

Recognizing that there are still many flwas and errors in both the composition and the languages used, it is hoped for constructive advice and criticism. I hope this report benefits all of us.

Bandar lampung, August 17th, 2021

Author



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CHAPTER 1 INTRODUCTION

1.1 Background

Transportation is one of the needs in carrying out daily activities in the community. In this era, where everything moves quickly, shifting the existing conventional business system. Conventional business processes that take a long time will affect the level of performance of the business. In the car rental business sector, the use of computer technology and the internet is still little used. Generally, computer and internet technology used in supporting the car rental business is only a means of communication to customers, namely making phone calls.

In this final project, it is done because there are so many car rental business owners who use conventional methods in terms of data management, one of which is Heros Rent Car. Heros Rent Car itself is a company engaged in rental car rental that stands in the city of Bandar Lampung. On Heros Rent Car, the data management system still uses book keeping as well as inputting customer identity data, the type of car being rented and the total cost.

With current technological developments, a new innovation is needed by utilizing information technology, one of which is a website. Currently the website is not only used as an information system but is also used to make someone's job easier, one of which is the car rental business. there are several impacts if still to use conventional methods, such as when an mistakes occurs during transactions, rentals or returns. So, that it can hinder for data management which can distrub the process of making the final report on the Heros Rent Car.

Therefore, it is necessary to design a system to overcome these problems, one of which is by building a software design that is expected to minimize mistakes in the rental and return process. Based on the description of the background above, it can

be seen that the system is needed in a Heros Rent Car. After the author has done some research, it can be concluded that the author will raise the issue with the title "**Implementation Of Learning Mysql Database At Nanjing Vocational College Of Informtion And Technology For The Creation a Website In The Heros Rent Car**". This system is expected to help car rental business owners in managing all their business data.

1.2 Formulation Of The Research

Based on the background that has been described, the problem in this research is how to implement the MYSQL database in making a webiste at Heros Rent Car so that it can make it easier to manage business data.

1.3 The Scope Of Research

1.3.1 Scope of Problem

So that the research is more focused and does not expand from the discussion in question, it can be limited as follows:

1. This information system uses several freeware and open source software such as PHP and MySQL.
2. The method used is *Waterfall*.
3. Data management system at Heros Rent Car, Bandar Lampung.

1.3.2 Research Site

This research was conducted at the Heros Rent Car company, Bandar Lampung.

1.4 Research Purpose

This research has the following benefits:

1. Analyze the data management process at Heroes Rent Car.

2. Analyzing the need for a data management system that will be used for the management of heros rent cars.
3. Design and build a website-based data management system for computerized business operations at Heros Rent Cars.

1.5 Benefits of Research

Benefits of this research:

1. The results of the analysis of problems in the ongoing data management process.
2. The results of the analysis of the needs of a website-based data management system at Heros Rent Car.
3. The establishment of a website-based data management system and facilitate administrators in inputting data.

1.6 Systematics of Writing

CHAPTER 1 INTRODUCTION

This chapter contains the background of the problem, the formulation of the problem, the scope of the research, the benefits and objectivies of the research and the systematics of writing.

CHAPTER II LITERATURE REVIEW

This chapter contains basic theories related to the research conducted by the author.

CHAPTER III RESEARCH METHODS

This chapter explains the problem-solving framework, data collection methods, problem analysis, interface design and what tools are used in making a website using the PHP proگرامing language and MYSQL as the database.

CHAPTER IV RESULTS AND DISCUSSION

This chapter contains the result of making a website using the PHP proگرامing language and MYSQL as the database and use the Xampp software which

functions as a web server. This website has several menus such as the number of cars, order data, customer data, and account data.

CHAPTER V CONCLUSION

This chapter contains conclusions and suggestions related to the discussion in this practical work report.

REFERENCES

ATTACHMENT

CHAPTER II LITERATURE REVIEW

As the basis for the theories supporting this research, I quote several theories put forward by experts.

2.1 Car Rental

One example of the cars offered for rental dates back to 1906. The German company Sixt was founded in 1912 under the name Sixt Autofahrten und Selbstfahrer (Sixt Car Cruises and Self Drivers). Joe Saunders of Omaha, Nebraska initially started by borrowing a Ford Model T in 1916, but by 1917, the Ford Livery company was leasing 18 Model Ts for 10 cents per mile.

Car rentals are companies that rent out cars for short periods of time, generally from a few hours to a few weeks. Often set up with many local branches (allowing the user to return the vehicle to a different location), and especially located near airports or busy city areas.

Car rental companies operate by buying or leasing a number of vehicles from other companies or providers of vehicle units and renting them out to customers for revenue (earnings). Rental fleets can be structured in a variety of ways that can be directly owned.

2.2 Database

The database management system (DBMS) is the software that interacts with end users, applications, and the database itself to capture and analyze the data. The DBMS software additionally encompasses the core facilities provided to administer the database. The sum total of the database, the DBMS and the associated applications can be referred to as a "database system". Often the term "database" is also used loosely to refer to any of the DBMS, the database system or an application associated with the database .

Computer scientists may classify database-management systems according to the database models that they support. Relational databases became dominant in the 1980s. These model data as rows and columns in a series of tables, and the vast majority use SQL for writing and querying data. In the 2000s, non-relational databases became popular, referred to as NoSQL because they use different query languages.

Database or database is a collection of data that is managed in such a way based on certain conditions that are interconnected so that it is easy to manage. Through this management, users can find it easy to find information, store information and dispose of information.

2.3 MYSQL

According to [1] “ MYSQL is an RDBMS (database server) that manages databases to quickly accommodate very large numbers and can be accessed by many users”.

According to [2] MySQL is an open source database server that is quite popular in existence. With various advantages it has, making this database software widely used by practitioners to build a project. various computer applications written in various programming languages can access the MySQL database.

According to the opinion of some of the experts above, it can be concluded that MySQL is an open source DBMS with two license forms, namely Free Software (free software) and Shareware (proprietary software whose use is limited). So MySQL is a database management system that uses the SQL language as a communicator between the application software and the database server.

2.4 Website

The website was first created by Team Berners-Lee in the late 1980s and only officially went online in 1991. The initial goal of the Berners-Lee team to create a website was to make it easier for researchers in their workplaces to exchange or make changes to information. At that time, the website began to be used for free by the public and was announced by CERN on April 30, 1993. Websites can be owned by individuals, organizations, or companies. In general, a website will display information or one particular topic, although nowadays many websites display various information on different topics.

Website is a collection of from the web pages, which are usually summarized in a domain or subdomain, which is located within World Wide Web (WWW) on the Internet. A web page is a document written in HTML (HyperText Markup Language) format. Which is, almost always accessible via HTTP protocols that convey information from the website server to display to users via a web browser. All publications from these websites can be form an information network very large. The pages of the website will be able to accessed via a URL commonly referred to as Homepage. This URL manages the pages site to be a hierarchy, hyperlinks on the page it governs readers and tell them the overall arrangement and how this information flows. Website is a medium information that is on the internet. The website is not can only be used for deployment information only, but can be used for various kinds of educational, government and business activities [1].

Published in the journal [3] that according to opinion pandu "Web is an application that contains document multimedia (text, images, sound, animation, video) in it that uses the protocol HTTP (hypertext transfer protocol) and for access using the software called browsers". Website functions include Promotional Media,

Marketing Media, Information Media, Educational Media, Media Communication.

2.5 XAMPP Control Panel

XAMPP is a computer software package whose naming system is taken from the acronym Apache, MySQL (formerly) / MariaDB (now), PHP, and Perl. While the suffix "X" at the beginning of the word comes from the term cross platform as a symbol that this application can be run on four different operating systems, such as Linux OS, Windows OS, Mac OS, and also Solaris.

History records, XAMPP software was first developed by a project team called Apache Friends and until now it has been included in the release version 7.3.9 which can be obtained for free with the GNU (General Public License) label.

XAMPP is free software, which supports multiple operating systems, and is a compilation of multiple programs. XAMPP is an easy-to-use web server that can serving dynamic web page display [4].

CHAPTER III RESEARCH METHODS

3.1 Problem Solving Framework

The author uses a waterfall method in the development system in this research, because in that method the system cannot run, when a problem occurs the process stops, because it cannot go to the next stage. Even if the possibility of problems due to previous errors, the process must fix the previous stages so that this problem does not come. In system development can be seen in the flowchart below at Figure 3.1.

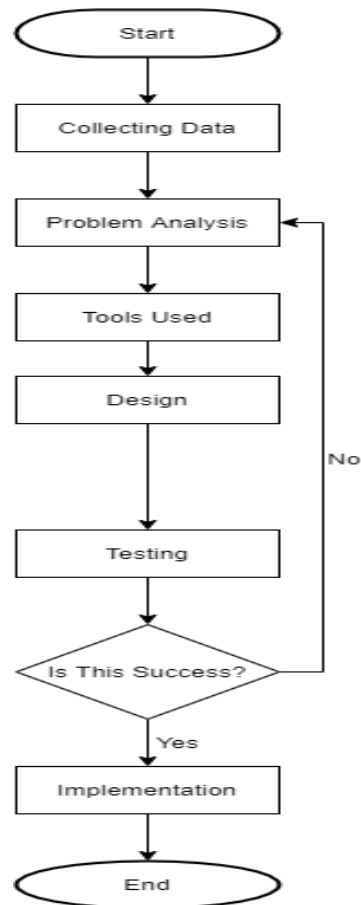


Figure 3.1 Research Stage

3.2 Methods of Collecting Data

The data collection stage is carried out to make it easier to analyze the data management system car rental, the techniques used in data collection are:

1. Primary Data

Primary data is data collected from the original source. Primary data collection is divided into two ways:

a. Observations

Observation is primary data, a data obtained directly from sources original data in order to get accurate and in accordance with what is needed. So the observation technique will get car data, price details, and the flow of rentals at Heros Rent Car.

b. Interview

The next stage after the observation stage is the interview. Interview conducted by directly interviewing related parties. The purpose of this stage is to obtain the information needed by the author in designing and building the system to be made.

2. Secondary Data

Secondary data is data obtained by researchers from available sources, namely studies references. Data collection at this stage uses journals and E-books available on the website as reference materials and references in research.

3.3 Problem Analysis

Below is an analysis carried out in making a car rental data management system:

1. What is the most effective way to simplify data management in the car rental business?
2. Can the create of a website system make it easier to manage car rental business data?

Based on the above analysis, The process of gathering requirements is carried out in an incentive and detailed manner to specify software requirements so that it can be understood what kind of software is needed by the user. Software requirements specifications at this stage need to be documented. The author

makes a website system using the PHP and MYSQL programming languages as the website. The system was created with the aim of making it easier to manage data in the rental business because the system contains several data such as the number of cars data, order data, customer data, and account data. So that it can make it easier for administrators to check the data that has been inputted.

3.4 Tools used

the tools needed to create a data management website for a car rental business using the PHP and MYSQL programming languages as a database is to create a database design on the website that contains what tables will be used and what columns are needed. After that determine the web server used and the framework needed, this time the author uses the XAMPP Control Panel as a web server and the Framework used using SB Admin 2. if have determined what is needed then the next step is to make a website design and coding. If everything is complete and made as desired, computer specifications are also needed to support website creation, the specifications are:

Table 3.1 Computer Device Specification

Device	Information
Operating System	Windows 10
Processor	Core i3 or Higher Version
Memory (RAM)	4GB or yang lebih tinggi
Harddisk	100 GB

for the software needed to create a website-based car rental data processing system, namely:

Table 3.2 Software requirements

Software	Information
Web Server	Xampp Control Panel
Database	MySQL Workbench 8.0 CE
Programming	Visual Studio Code
Design	Draw.IO

3.5 Design

In system planning, it will discuss the description of the Entity Relation Diagram (ERD), Logical Design and Physical Design on the design of data management systems in the car rental business. The Entity Relation Diagram can be seen below:

3.5.1 Entity Relation Diagram (ERD)

Is a graphical representation that describes the relationship between people, objects, places, concepts, or events in an information technology (IT) system. ERD uses data modeling techniques that can help define business processes and serve as the basis for relational databases. For the ERD it is can be seen at Figure 3.2.

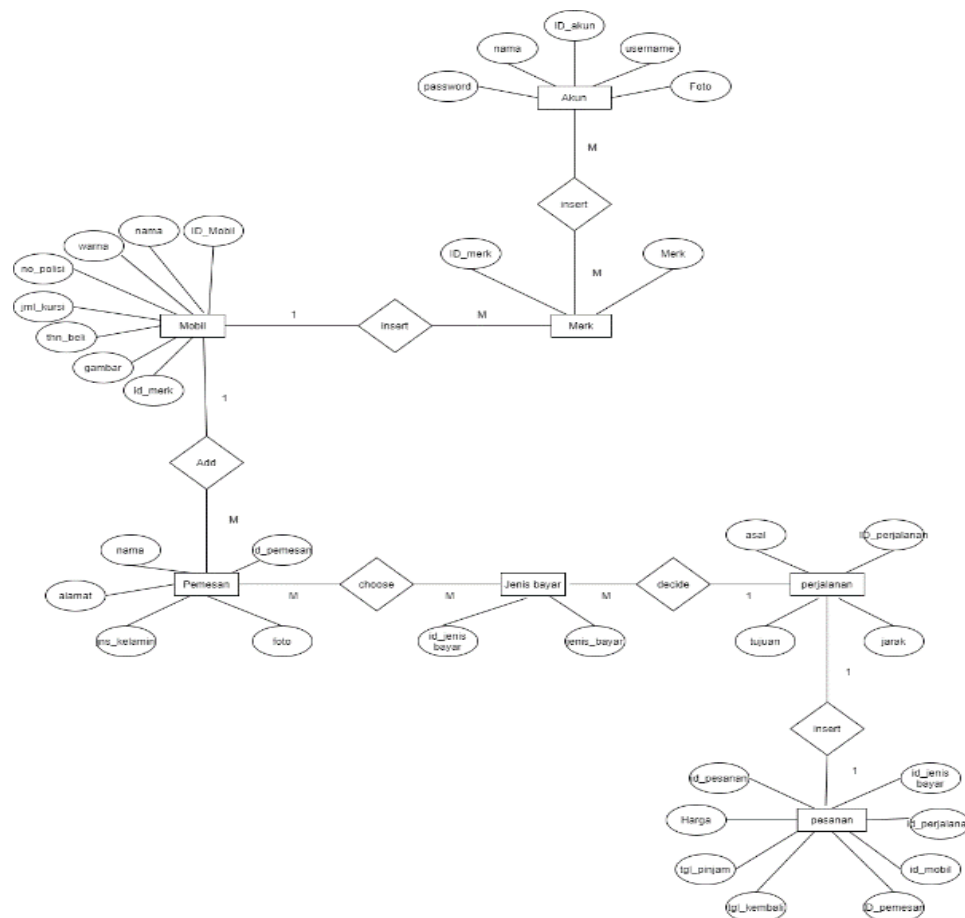


Figure 3.2 Entity Relation Diagram(ERD)

3.5.2 Logical Design

Logical database design is the process of transforming (or mapping) a conceptual schema of the application domain into a schema for the data model underlying a particular DBMS, such as the relational or object-oriented data model. This mapping can be understood as the result of trying to achieve two distinct sets of goals there are representation goal and data management goals.

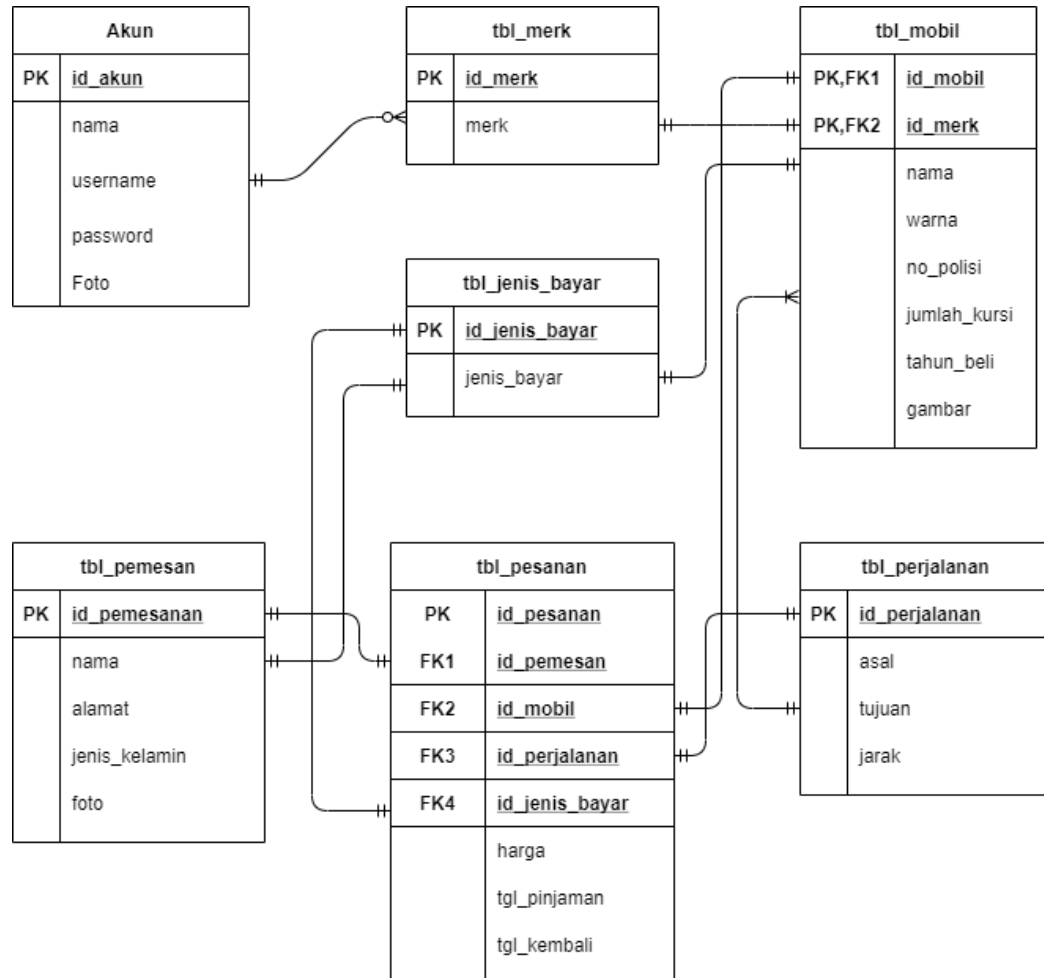


Figure 3.3 Logical Design

3.5.3 Physical Design

The physical design of your database optimizes performance while ensuring data integrity by avoiding unnecessary data redundancies. During physical design, you transform the entities into tables, the instances into rows, and the attributes into columns. After completing the logical design of your database, you now move to the physical design.

Table 3.3 Table From admin Account

Field	Type	Default	Description
<i>(PK) id_akun</i>	Int (11)	NOT NULL	Account ID (Primary Key)
Nama	Varchar (50)	NULL	Name of administrator
Username	Varchar (15)	NULL	Username of admin
Foto	Varchar (60)	NULL	Photo of admin

Table 3.4 Table From Payment Type

Field	Type	Default	Description
<i>(PK) id_jenis_bayar</i>	Int (11)	NOT NULL	ID of Payment type (primary key)
Jenis_bayar	Varchar(20)	NULL	Payment Type

Table 3.5 Table From Brand

Field	Type	Default	Description
<i>(PK) id_merk</i>	Int (11)	NOT NULL	ID of brand (primary key)
Merk	Varchar (20)	NULL	Name of Brand

Table 3.6 Table from Car

Field	Type	Default	Description
<i>(PK) id_mobil</i>	Int (11)	NOT NULL	ID name of car (primary key)
Nama	Varchar (30)	NULL	Name of car
Warna	Varchar (20)	NULL	Color of car
No_polisi	Varchar (10)	NULL	Police number
Jumlah_kursi	Int (1)	NULL	Number of seats
Tahun_beli	Int (4)	NULL	Year of buying a car
Gambar	Varchar(100)	NULL	Picture of Car
(FK) Id_merk	Int (11)	NULL	ID of Brand (Foreign Key)

Table 3.7 Table from customer

Field	Type	Default	Description
(PK) Id_pemesan	Int (11)	NOT NULL	ID of customer (primary key)
Nama	Varchar (50)	NULL	Name of customer
Alamat	Varchar(100)	NULL	Address of customer
Jenis_Kelamin	Enum	NULL	Customer Gender
Foto	Varchar(100)	NULL	Photo of customer

Table 3.8 Table of Trip

Field	Type	Default	Description
(PK) id_perjalanan	Int (11)	NOT NULL	ID of trip (primary key)
Asal	Varchar(20)	NULL	Customer origin
Tujuan	Varchar(20)	NULL	Destination
Jarak	Int (3)	NULL	distance

Table 3.9 Table of Order

Field	Type	Default	Description
(PK) id_pesanan	Int (11)	NOT NULL	ID of order (primary key)
Harga	Int (11)	NULL	Order price
Tgl_pinjam	Date	NULL	Borrow date
Tgl_kembali	Date	NULL	return date
(FK) id_pemesan	Int (11)	NULL	ID of customer (Foreign key)
(FK) id_mobil	Int (11)	NULL	ID of car (foreign key)
(FK)id_perjalanan	Int (11)	NULL	ID of trip (Foreign Key)
(FK)id_jenis_bayar	Int (11)	NULL	ID of Payment Type (Foreign Key)

3.6 System Interface Design

The proposed system interface consists of one access right, namely the Admin access rights system interface. The system to be built is used by all website-based access rights.

The proposed system interface design with administrator access rights is as follows:

a. Admin login page interface

After registering an account, the admin can login on the login page by entering the username and password. The design of the admin access login interface is as shown in Figure 3.4.

The figure shows a login interface within a rectangular border. At the top center, it says "Welcome!". Below this, there are three rounded rectangular input fields stacked vertically. The first field is labeled "Username :", the second is labeled "Password :", and the third is a button labeled "login".

Figure 3.4 Login Page Interface Design

b. Homepage Admin Access Interface

On the admin access home page, admins can perform several activities such as inputting data, adding data and deleting data. The design of the Home page interface For Admin Access Is As Shown In Figure 3.5.

The figure shows an admin dashboard layout. On the left is a vertical sidebar menu with the following items: "Herost Rent Car", "Dashboard", "Data Merk", "Data Mobil", "Data Pemesan", "Data jenis bayar", "Data perjalanan", "Data pesanan", and "Manajemen Akun". The main content area is titled "Aplikasi Herost Rent Car" and contains a "Administrator" button at the top right. Below the title are four buttons: "Data Mobil", "Data Pemesan", "Data Pesanan", and "Data Akun". At the bottom of the main area is a section titled "Akun yang sedang login" which includes a placeholder box and a list of fields: "Nama :", "Username :", "Tanggal & jam login :", and "Server :".

Figure 3.5 Admin Access Homepage Design

c. Brand Data Page Interface

On this page the admin can add car brand data available on the Heros Rent Car, for the design of the brand data page it can be seen in Figure 3.6.

<p>Heros Rent Car</p> <p>Dashboard</p> <p>Data Merk</p> <p>Data Mobil</p> <p>Data Pemesan</p> <p>Data jenis bayar</p> <p>Data perjalanan</p> <p>Data pesanan</p> <p>Manajemen Akun</p>	Administrator						
	<p>Data Merk</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Tambah Data</p> <p>Nama Merk</p> <input type="text" value="Ketik"/> <p>+Tambah x Batal</p> </div> <div style="width: 45%;"> <p>Daftar Merk</p> <p>Show 10 <input type="text" value="▲"/> <input type="text" value="▼"/> entries</p> <table border="1"> <thead> <tr> <th>no</th> <th>merk</th> <th>aksi</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> </div> </div>		no	merk	aksi		
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Figure 3.6 Brand Data Page Design

d. Car Data Page Interface

On the mobile data page, the admin is required to add the name of the car, the color of the car, the police number, the year of purchase and the image of the car. on this page the admin can also delete data if a mistakes occurs. for the design of the car data page it can be seen in Figure 3.7.

<p>Heros Rent Car</p> <p>Dashboard</p> <p>Data Merk</p> <p>Data Mobil</p> <p>Data Pemesan</p> <p>Data jenis bayar</p> <p>Data perjalanan</p> <p>Data pesanan</p> <p>Manajemen Akun</p>	Administrator										
	<p>Data Mobil</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Tambah Data</p> <p>Nama Mobil</p> <input type="text" value="Ketik"/> <p>Nama Merk</p> <input type="text" value="Ketik"/> <p>Warna Mobil Warna Mobil</p> <input type="text" value="Ketik"/> <input type="text" value="Ketik"/> <p>No polisi Tahun Beli</p> <input type="text" value="Ketik"/> <input type="text" value="Ketik"/> <p>Gambar Mobil</p> <input type="button" value="Choose File"/> <p>+Tambah x Batal</p> </div> <div style="width: 45%;"> <p>Daftar Mobil</p> <p>Show 10 <input type="text" value="▲"/> <input type="text" value="▼"/> entries</p> <table border="1"> <thead> <tr> <th>no</th> <th>mobil</th> <th>merk</th> <th>kursi</th> <th>aksi</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> </div> </div>		no	mobil	merk	kursi	aksi				
no	mobil	merk	kursi	aksi							

Figure 3.7 Car Data Page Design

e. Customer Data Page Interface

On the customer data page the admin can add data in the form of the buyer's name, gender, address and photo of the buyer. for the design of the customer data can be seen in the Figure 3.8.

The screenshot shows the 'Customer Data Page Interface' for 'Heros Rent Car'. The page is titled 'Administrator'. On the left is a sidebar menu with items: Dashboard, Data Merk, Data Mobil, Data Pemesan, Data jenis bayar, Data perjalanan, Data pesanan, and Manajemen Akun. The main content area is divided into two panels:

- Data Pemesan:** Contains a 'Tambah Data' section with a 'Nama Pemesan' text input (placeholder 'Ketik'), a 'Jenis Kelamin' dropdown menu (selected 'Laki laki'), an 'Alamat Pemesan' text input (placeholder 'Ketik'), and a 'Foto Pemesan' section with a 'Choose File' button and 'No file chosen' text. At the bottom are '+Tambah' and 'x Batal' buttons.
- Daftar Pemesan:** Shows a table with columns 'No', 'Nama', 'Jenis kelamin', and 'aksi'. Above the table is a 'Show 10 entries' dropdown. Below the table is the text 'Showing 1 to 2 of entries'.

Figure 3.8 Customer Data Page Design

f. Payment Type Data Page Interface

On the payment type page, the admin can add data in the form of the type of payment chosen by the customer. for the payment type page design can be seen in the Figure 3.9.

The screenshot shows the 'Payment Type Data Page Interface' for 'Heros Rent Car'. The page is titled 'Administrator'. On the left is a sidebar menu with items: Dashboard, Data Merk, Data Mobil, Data Pemesan, Data jenis bayar, Data perjalanan, Data pesanan, and Manajemen Akun. The main content area is divided into two panels:

- Data Jenis Bayar:** Contains a 'Tambah Data' section with a 'Jenis Bayar' dropdown menu (placeholder 'Ketik'). At the bottom are '+Tambah' and 'x Batal' buttons.
- Daftar Jenis Bayar:** Shows a table with columns 'No', 'Jenis Bayar', and 'aksi'. Above the table is a 'Show 10 entries' dropdown. Below the table is the text 'Showing 1 to 2 of entries'.

Figure 3.9 Payment Type Data Design

g. Travel Data Page Interface

on the travel data page the admin can input data in the form of city of origin, city of destination and how far the distance traveled, for the travel data page payment can be seen in the figure 3.10.

Figure 3.10 Travel data Page Design

h. Order Data Page Interface

On the order data page the admin inputs data such as the name of the customer, the car ordered, the date of borrowing and returning and the total payment. for the order data page design can be seen in the figure 3.11.

Figure 3.11 Order Data Page Design

i. Account Management Data Page Interface

On this page the admin can add an account that is allowed to access the heros rent car data management system website for the data entered in adding an account in the form of name, username, password and administrator photo. for the account management data page can be seen in the figure 3.12.

Figure 3.12 Account Management Data Page Design

3.7 Testing

at the testing stage of this system is to try whether the existing system can run as needed, to do testing it is necessary to do several things such as trying to see if there is an error when entering or an error that can affect the data entry process. so because of that, a test like the following is needed:

3.8 Implementation

The coding phase of the program is accompanied by the implementation and system testing stages. The new system can be used by the heros rent car administrator as a media container for data management. If there are deficiencies or additional system requirements, the community will re-communicate with researchers.

CHAPTER IV RESULT AND DISCUSSION

4.1 System Testing

Before implementing the system, a system test is needed to ensure whether the system created can run well or not. if the testing has been done, then the next step is to implementation. There are several things that must be done in the system testing, for the testing to be carried out are:

a. Import Database To Website

the first test is to determine whether the database can be directly connected to the website, if it is successful in importing the database into phpmyadmin then it is certain that the database entered is connected to the website. We can be seen in the figure 4.1

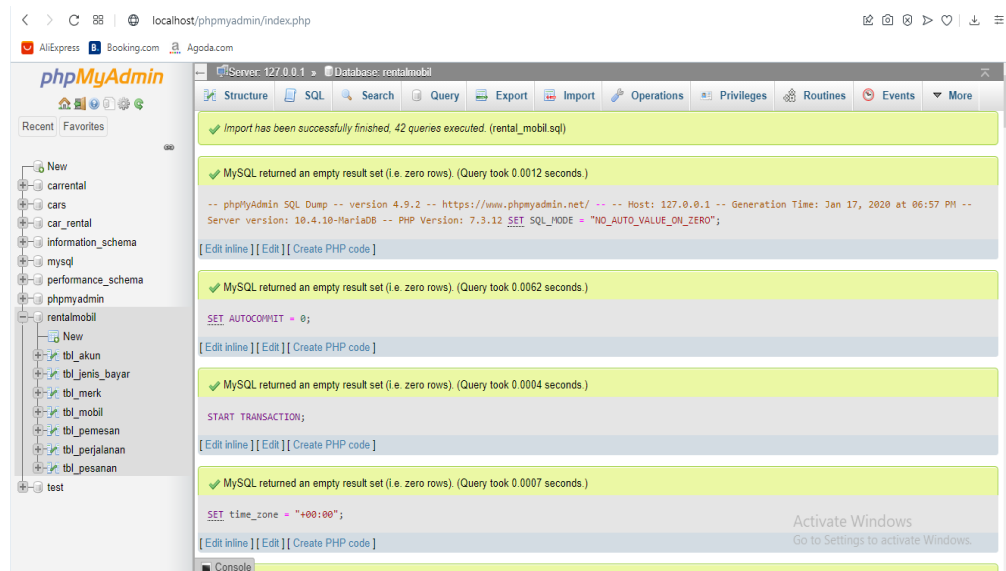


Figure 4.1 Import Database to Website

b. Login to the Website

If you have connected the database with the website, the next step is to find the website domain according to the website folder name that will be run, before looking for the website domain, make sure the website folder already exists or not in the xampp folder on localdisk c, if it is confirmed that the folder there

then we can find the website that we want to run. If it is found, the login page will appear as shown below in the figure 4.2.

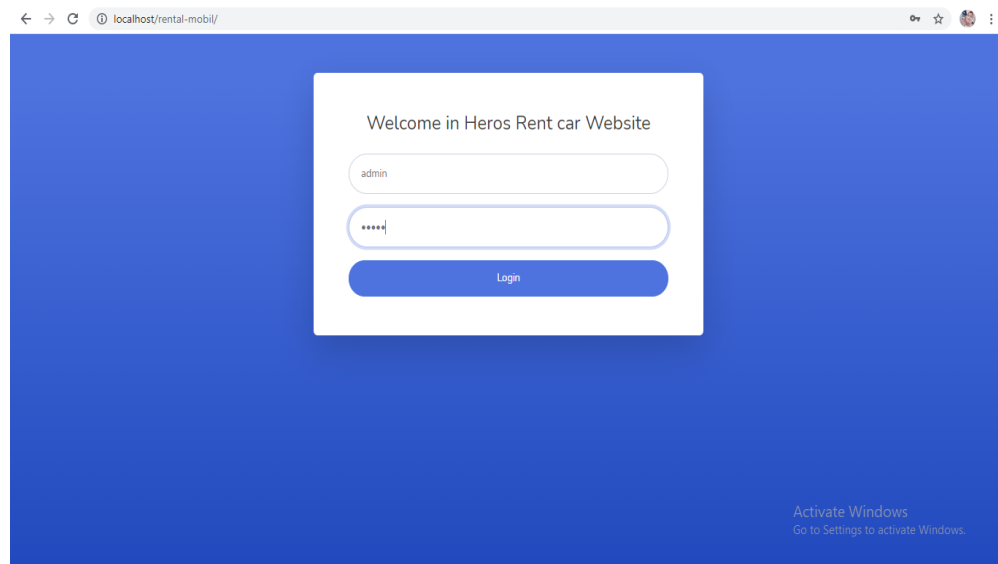


Figure 4.2 Login to Website

c. Display Website Page

If the domain name has been found and the admin can enter the dashboard page, it means that the website can run as desired. for the web page can be seen in Figure 4.3.

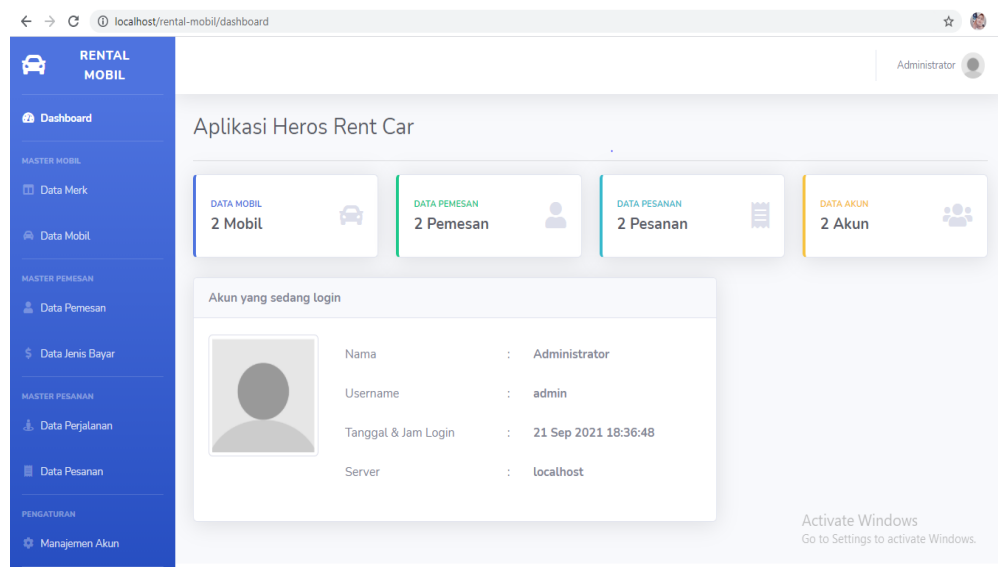


Figure 4. 3 Testing Website Page

d. Input Data

If you have entered the dashboard page then the next step is to ensure whether all the desired menus are in accordance with their needs, if they are appropriate then the next step we try to input data, if you have successfully added data, a message will appear as shown below at figure 4.4

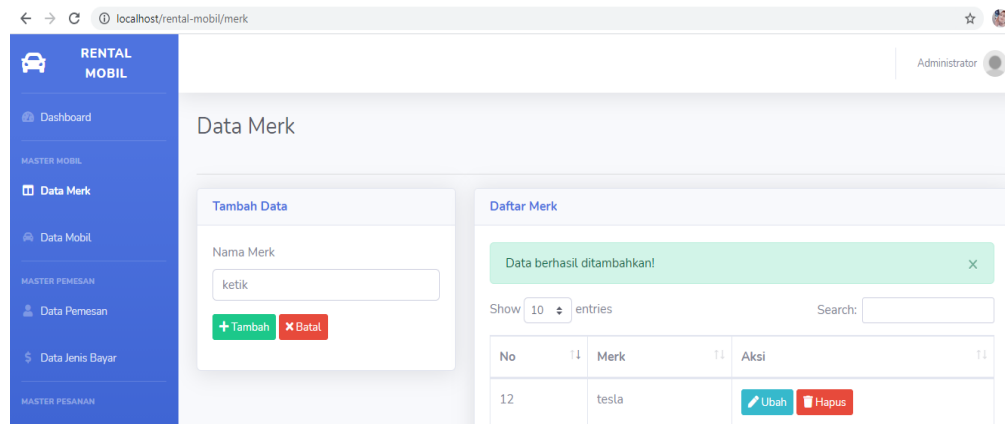


Figure 4.4 Testing Input Data

e. Change a Data

The next step is let's try to change a data, whether the data we want to change can change as desired or an error appears in the system. If the data has changed, a message will appear as shown below at figure 4.5.

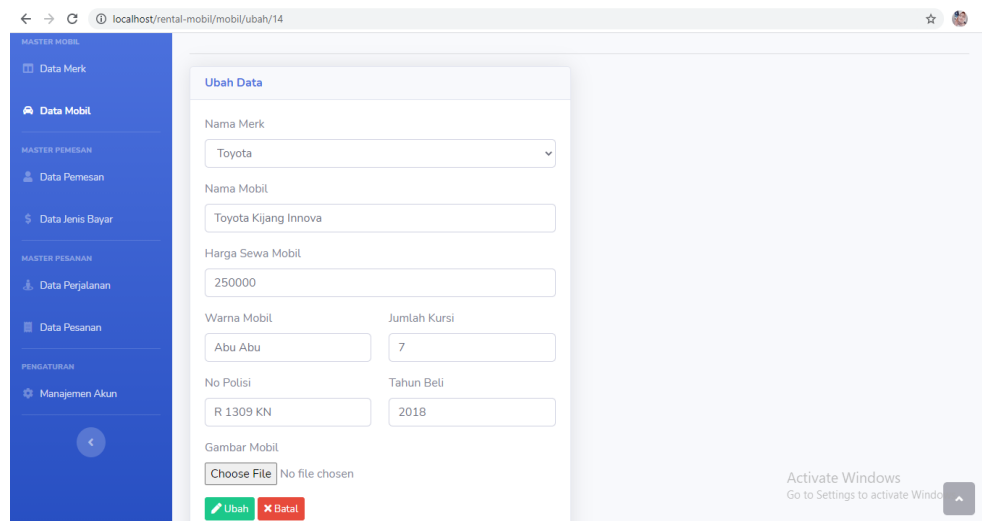


Figure 4.5 Testing Change a Data

f. Delete a Data

If adding data is successful then let's try to delete the data, if the desired data has been deleted it will display a message like the image below at figure 4.6.

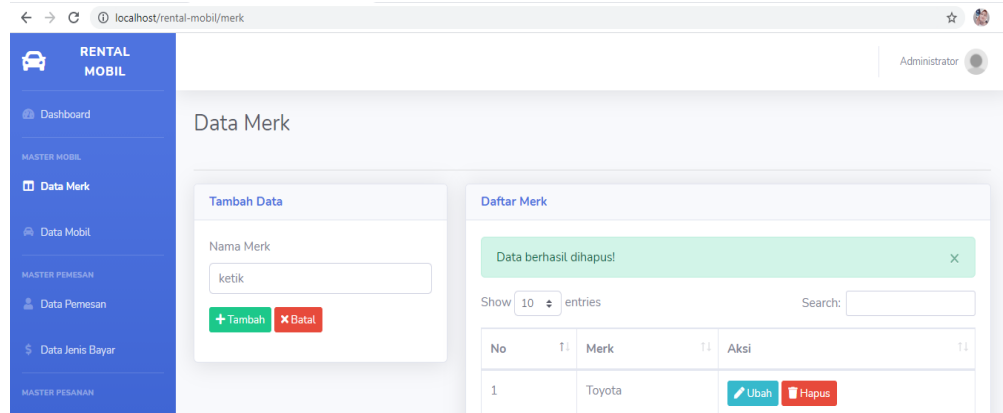


Figure 4.6 Testing Delete a Data

g. Display Data Details

The next test is whether the website can display the details of a data, if it can display it then it is certain that the website is in accordance with its needs. to see the details of a data it can be seen in Figure 4.7.

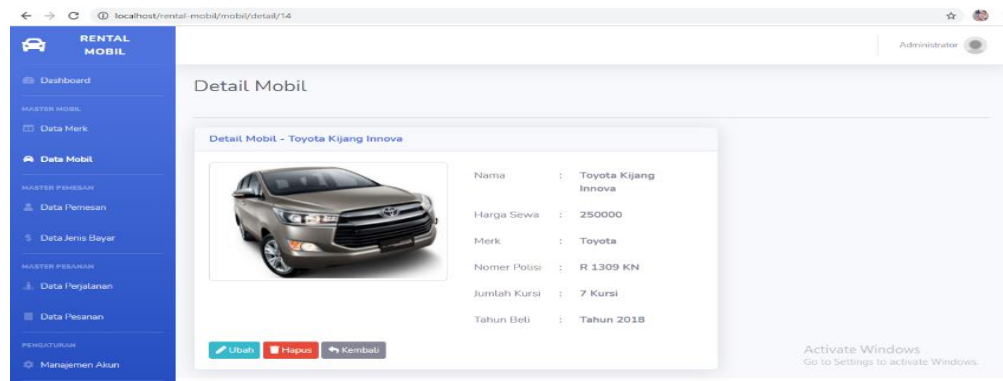


Figure 4.7 Testing Data Details

h. Log out from Website

if you have done all the trials and they are successful, then the next step is to try to logout from the website, if there is a message like the image below, it is

certain that you can logout from the account that entered the website. for the login menu can be seen in Figure 4.8.

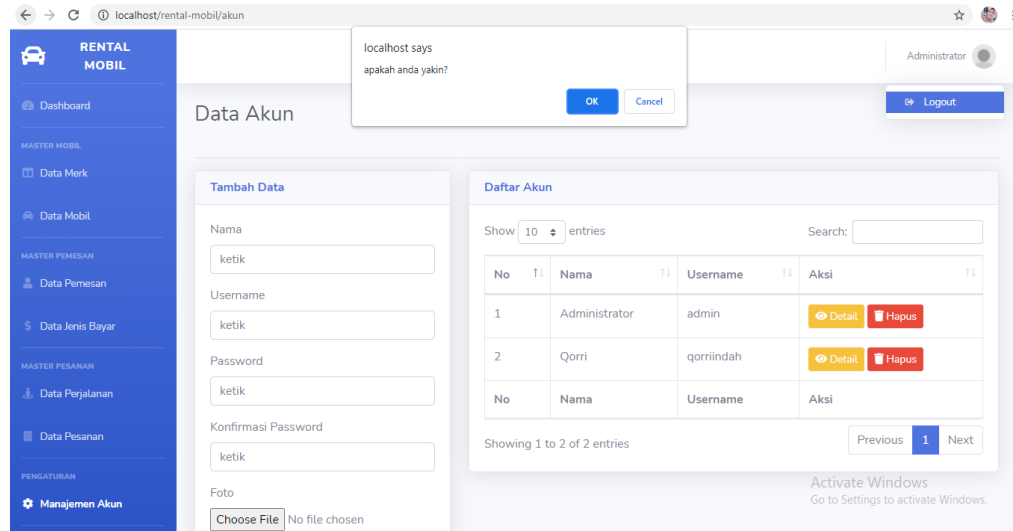


Figure 4.8 Testing Log out From Website

4.2 Implementation

In the discussion of the results of making the application, it is explained in the form of a program display that has been run. The explanation of the function of each menu contained in the administrator's display of this website is as follows:

4.2.1 Login Menu Display

on the admin login menu display, you can enter the website by entering the admin username and password, the login display can be seen in the figure 4.9.

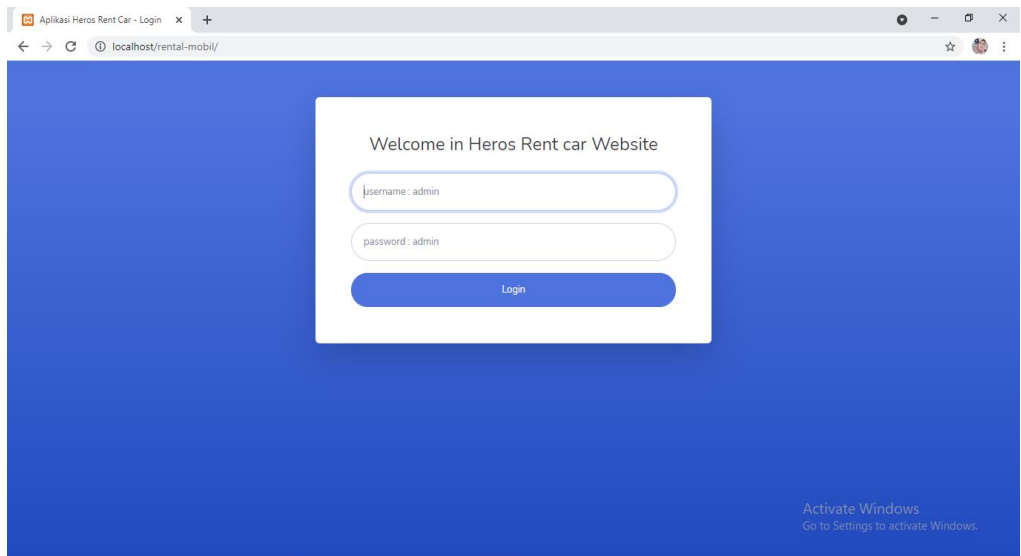


Figure 4.9 Login Menu Display

4.2.2 Dashboard Menu Display

On the admin access home page, admins can perform several activities such as inputting data, adding data and deleting data. The design of the Home page interface For Admin Access Is As Shown In Figure 4.10.

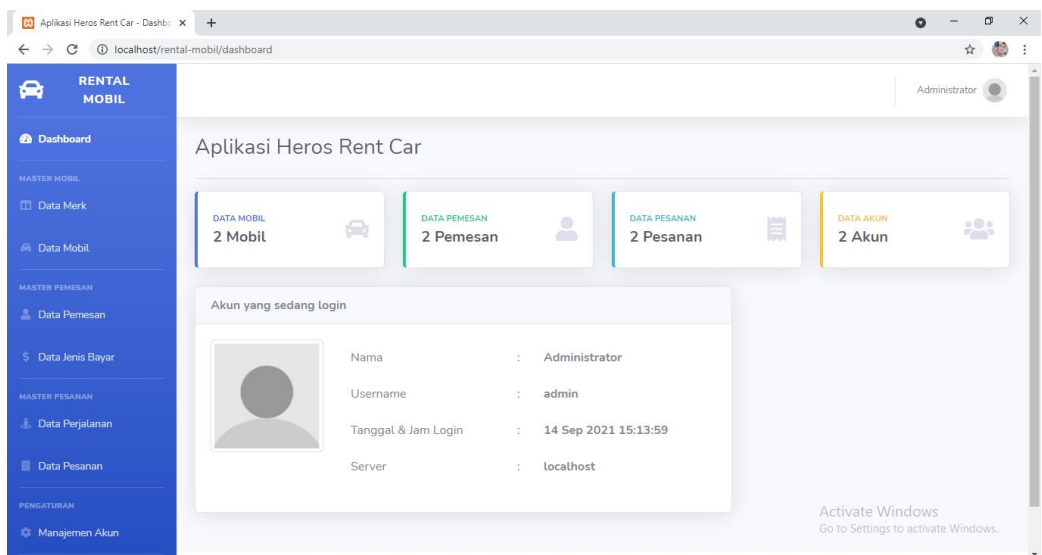


Figure 4.10 Dashboard Menu Display

4.2.3 Merk Data Display

On this page the admin can add car brand data available on the Heros Rent Car, for the design of the brand data page it can be seen in Figure 4.11.

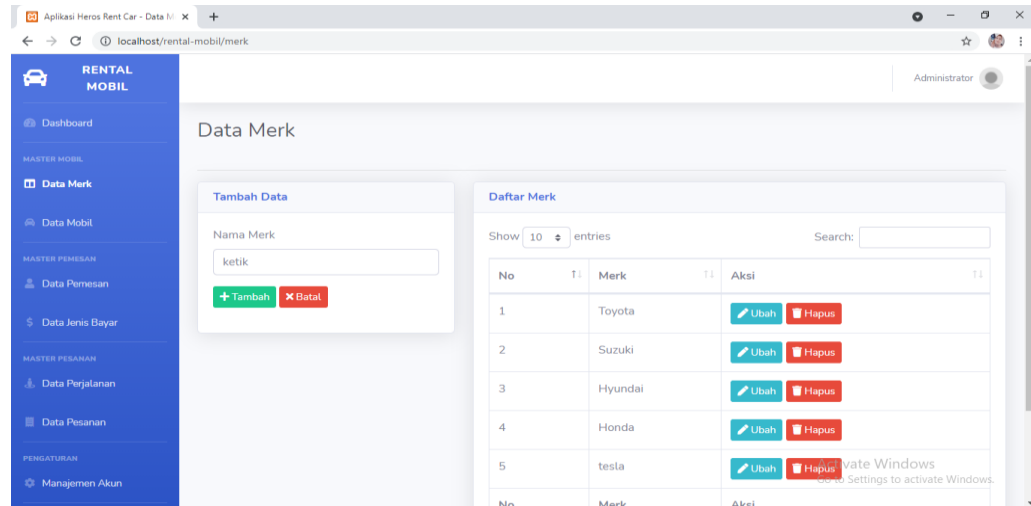


Figure 4.11 Merk Data Display

4.2.4 Car Data Display

On the mobile data page, the admin is required to add the name of the car, the color of the car, the police number, the year of purchase and the image of the car. on this page the admin can also delete data if a mistakes occurs. for the design of the car data page it can be seen in Figure 4.12.

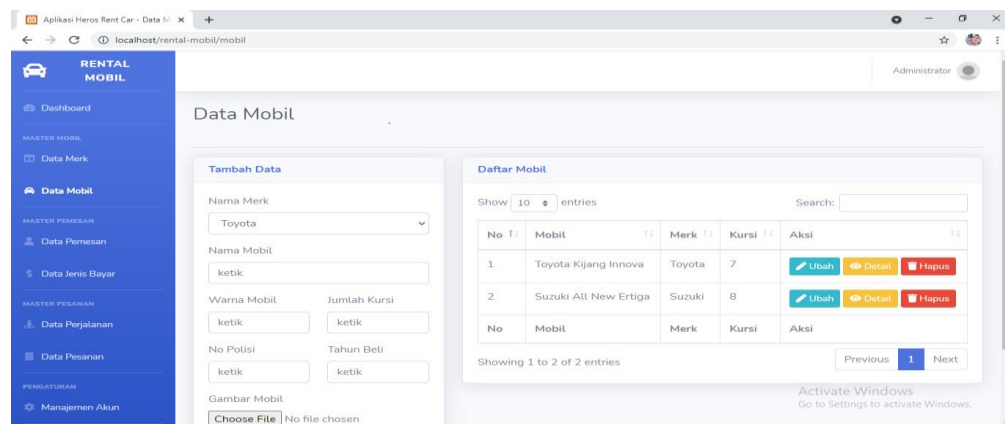


Figure 4.12 Car Data Display

4.2.5 Customer Data Display

On the customer data page the admin can add data in the form of the buyer's name, gender, address and photo of the buyer. for the design of the customer data can be seen in the figure 4.13.

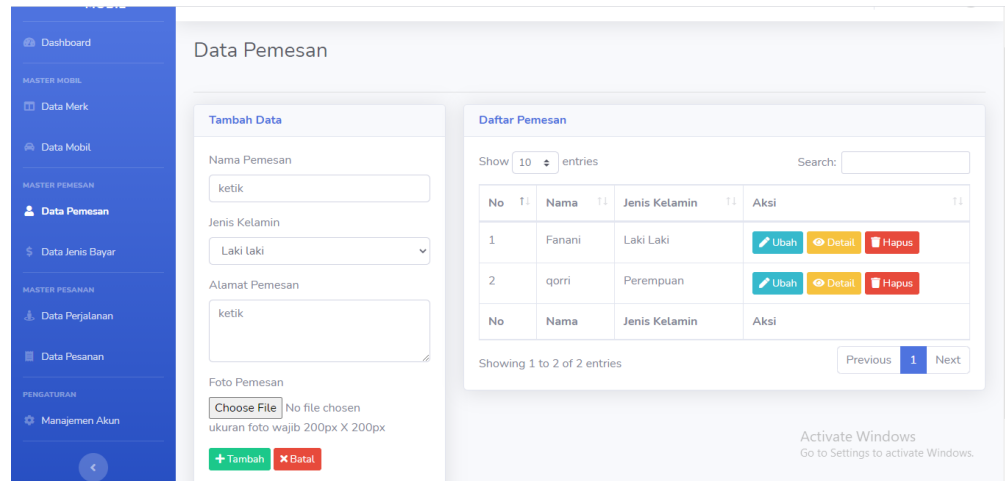


Figure 4.13 Customer Data Display

4.2.6 Payment Type Display

On the payment type page, the admin can add data in the form of the type of payment chosen by the customer. for the payment type page design can be seen in the figure 4.14.

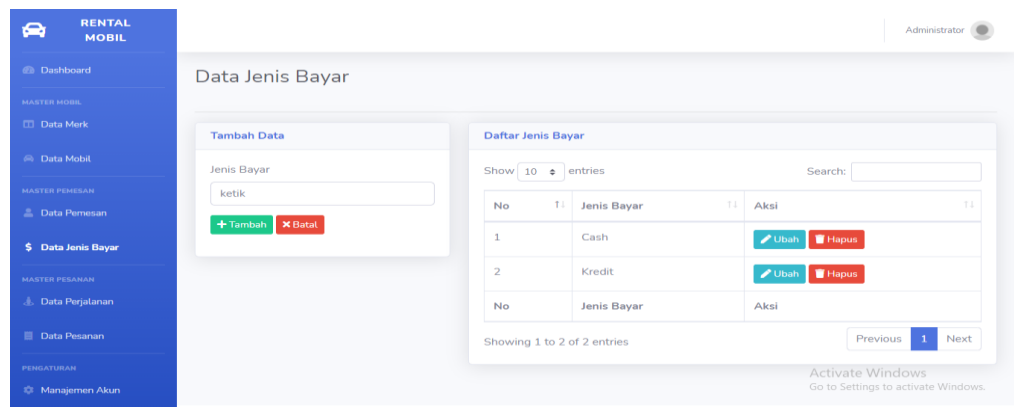


Figure 4.14 Payment Type Display

4.2.7 Travel Data Display

On the travel data page the admin can input data in the form of city of origin, city of destination and how far the distance traveled, for the travel data page payment can be seen in the figure 4.15.

The screenshot shows the 'Data Perjalanan' page. On the left is a sidebar with navigation options: Dashboard, MASTER MOBIL (Data Merk, Data Mobil), MASTER PESANAN (Data Pemesan, Data Jenis Bayar), and MASTER PESANAN (Data Perjalanan, Data Pesanan). The main content area has a 'Tambah Data' form with fields for Kota Asal (ketik), Kota Tujuan (ketik), and Jarak (dalam KM) (ketik), with '+ Tambah' and 'X Batal' buttons. To the right is a 'Daftar Perjalanan' table with columns: No, Kota Asal, Kota Tujuan, Jarak, and Aksi. The table contains three entries:

No	Kota Asal	Kota Tujuan	Jarak	Aksi
1	Cilacap	Jogjakarta	300 KM	Ubah Hapus
2	Cilacap	Ciamis	70 KM	Ubah Hapus
3	Bandar Lampung	Jakarta	1000 KM	Ubah Hapus

At the bottom of the table, it says 'Showing 1 to 3 of 3 entries'. There are also window management controls at the bottom right.

Figure 4.15 Travel Data Display

4.2.8 Order Data Display

On the order data page the admin inputs data such as the name of the customer, the car ordered, the date of borrowing and returning and the total payment. for the order data page design can be seen in the figure 4.16.

The screenshot shows the 'Data Pesanan' page. On the left is a sidebar with navigation options: Dashboard, MASTER MOBIL (Data Merk, Data Mobil), MASTER PESANAN (Data Pemesan, Data Jenis Bayar), and MASTER PESANAN (Data Perjalanan, Data Pesanan). The main content area has a 'Tambah Data' form with fields for Nama Pemesan (Fanani), Mobil (Toyota Kijang Innova), Perjalanan (Cilacap - Jogjakarta (300 KM)), Jenis Bayar (Cash), and Harga (ketik). It also has fields for Tanggal Pinjam and Tanggal Kembali. There are '+ Tambah' and 'X Batal' buttons. To the right is a 'Daftar Pesanan' table with columns: No, Pemesan, Mobil, Jenis Bayar, and Aksi. The table contains two entries:

No	Pemesan	Mobil	Jenis Bayar	Aksi
1	Fanani	Suzuki All New Ertiga	Cash	Ubah Detail Hapus
2	qorri	Suzuki All New Ertiga	Cash	Ubah Detail Hapus

At the bottom of the table, it says 'Showing 1 to 2 of 2 entries'. There are also window management controls at the bottom right.

Figure 4.16 Order Data Display

4.2.9 Account Management Display

On this page the admin can add an account that is allowed to access the heros rent car data management system website for the data entered in adding an account in the form of name, username, password and administrator photo. for the account management data page can be seen in the figure 4.17.

The screenshot displays the 'Data Akun' management interface. On the left is a blue sidebar with navigation links. The main area is titled 'Data Akun' and is divided into two sections:

- Tambah Data:** A form for adding new accounts with fields for Nama, Username, Password, Konfirmasi Password, and Foto. The Foto field includes a 'Choose File' button and a note: 'No file chosen, ukuran foto wajib 200px X 200px'. There are '+ Tambah' and 'x Batal' buttons at the bottom.
- Daftar Akun:** A table listing existing accounts. It includes a search bar, a 'Show 10 entries' dropdown, and a table with columns for No, Nama, Username, and Aksi. The table contains two entries: Administrator (admin) and Qorri (qorriindah). Each entry has 'Detail' and 'Hapus' buttons. Below the table, it says 'Showing 1 to 2 of 2 entries' with 'Previous', '1', and 'Next' navigation options.

An 'Activate Windows' watermark is visible in the bottom right corner.

Figure 4.17 Account Management Display

CHAPTER V CONCLUSION AND SUGGESTIONS

Based on the analysis research and discussion in the previous chapter, some conclusions can be drawn regarding Implementation Of Learning Mysql Database At Nanjing Vocational College Of Information And Technology For The Creation a Website in The Heros Rent Car as follows:

5.1 Conclusion

Based on the results and discussion, the conclusions of this study are as follow:

1. With this research on Build a Website To Implementation Using PHP Programming Language and MySQL as The Database at The Heros Rent Car which previously used a conventional system can now switch to a digital system.
2. With this website, it can help administrators in processing data on Heros Rent Car.
3. With this website, it can make it easy for administrators to check business data on heros rent cars such as customer data, cars, brands and borrow and return data.

5.2 Suggestion

The suggestions obtained are as follows:

1. It is hoped that this research can be a new breakthrough for students so that they can make this research even better.
2. It is hoped that this project can be accepted by car rental businesses so that it can be used as well as possible.

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ATTACHMENT

1. Database Technology Course

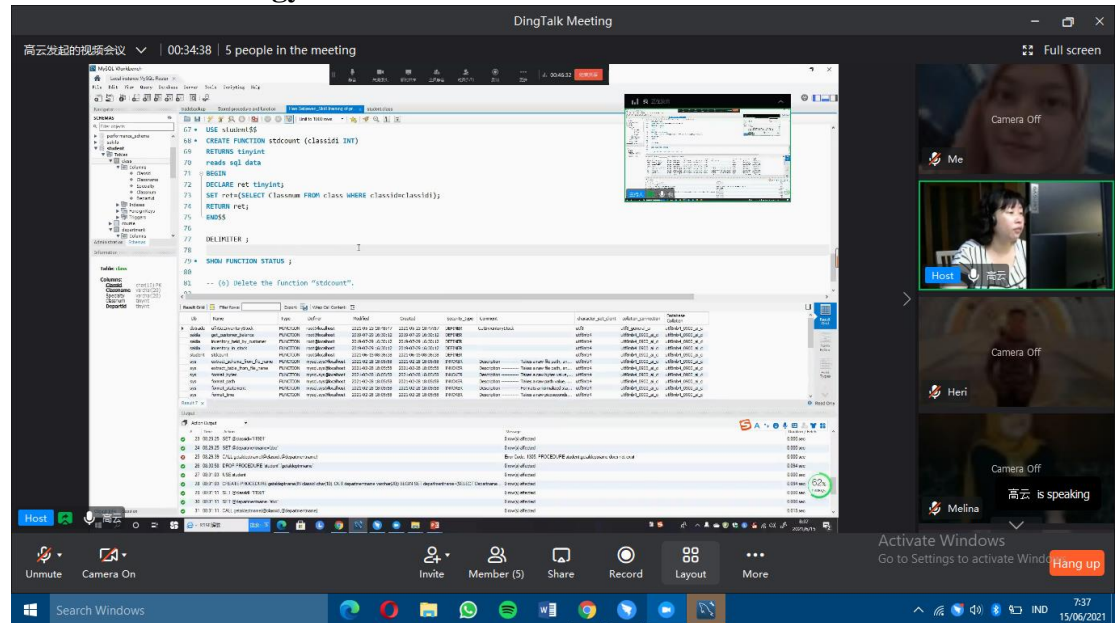


Figure 1. Documentation for Database Technology Course

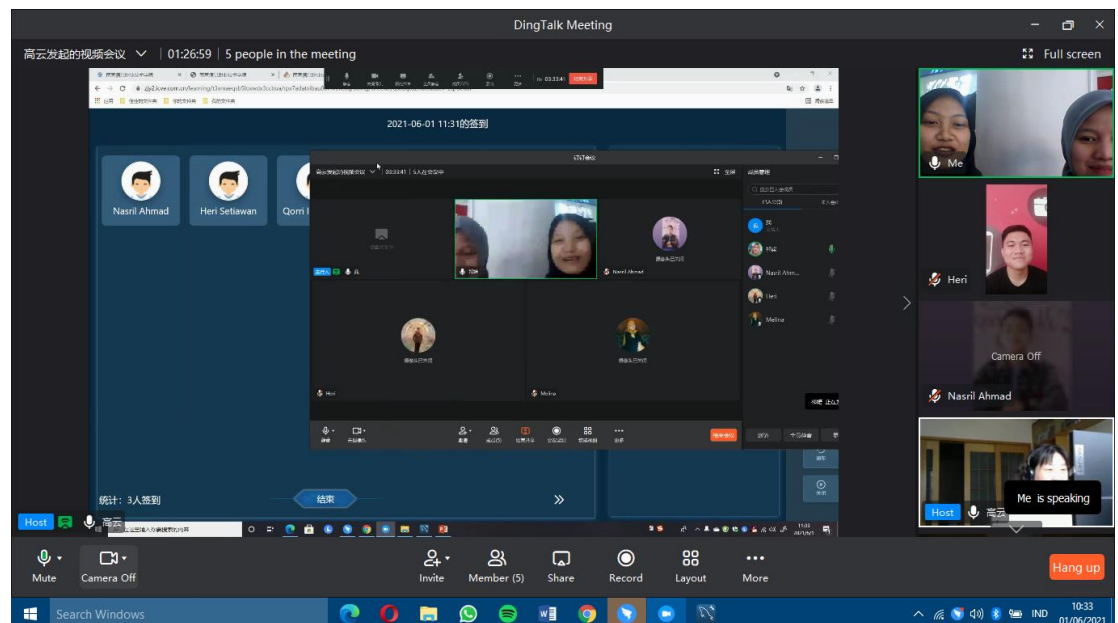


Figure 2. Documentation while studying online

2. Computer Network Course

Figure 3. Documentation For Computer Network Course

Figure 4. Documentation while studing online

3. Object Oriented Programming

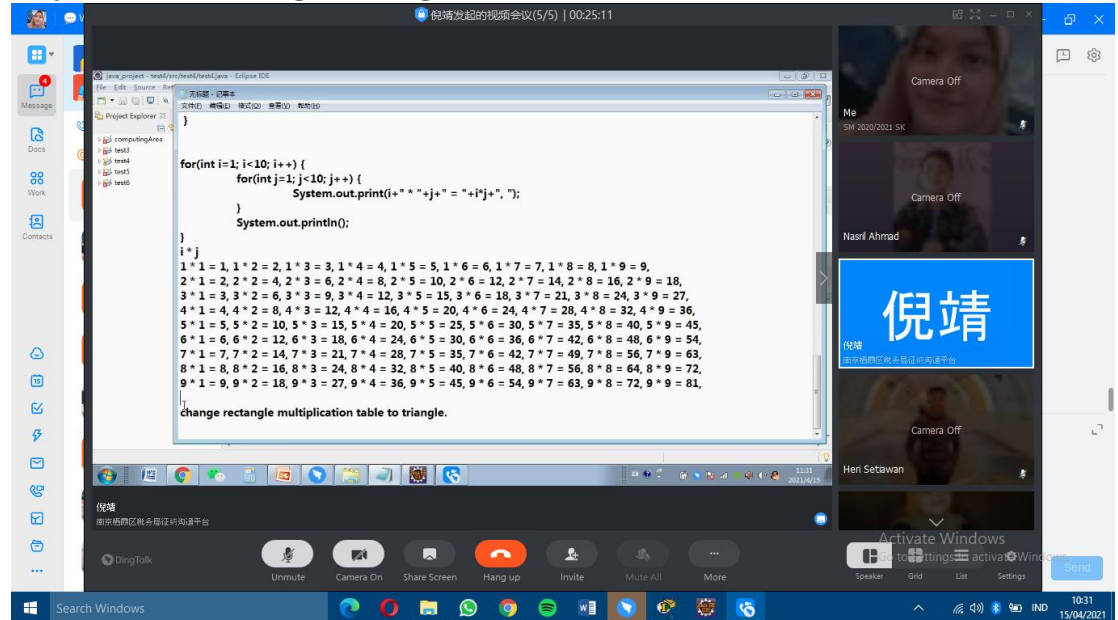


Figure 5. Documentation For OOP Course

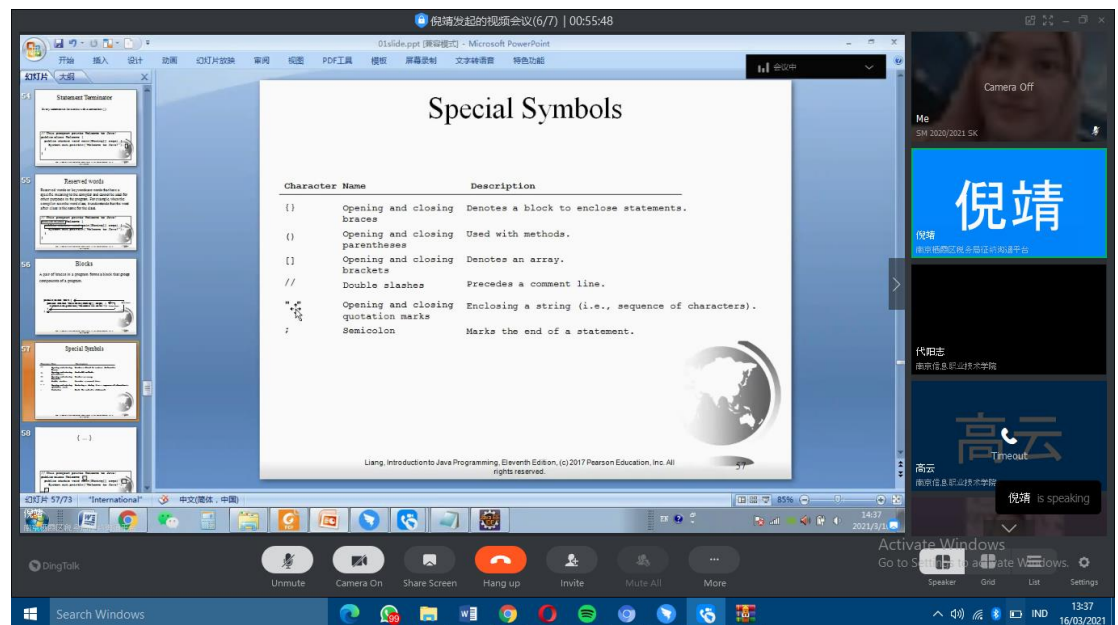


Figure 6. Documentation While Studying Online

4. Digital Signal Course

1.1.1 Discrete-time Signals

$x(n)$
comes from:
 $x_s(t) = \sin(2\pi ft)$
Uniformly sampled as:
 $x_a(nT) = \sin(2\pi fnT)$

T denotes sampling interval or period and its reciprocal is sampling frequency written as:
sampling frequency $\Rightarrow f_s = \frac{1}{T}$

Understanding DSP, Second Edition 3

Figure 7. Documentation For Digital Signal Course

1.1.2 Frequently Used Discrete Sequences

Relation of $R_N(n)$, $u(n)$ and $\delta(n)$

• $R_N(n)$ is expressed as:

$$R_N(n) = u(n) - u(n - N)$$

• $R_N(n)$ is expressed as:

$$R_N(n) = \sum_{k=0}^{N-1} \delta(n - k) = \delta(n) + \delta(n - 1) + L + \delta(n - (N - 1))$$

Understanding DSP, Second Edition 10

Figure 8. Documentation While Studying Online

5. Programming Course

孔帆发起的在线课堂 | Class on for 00:59:09

Arithmetic Operators

- Increment operators "++"
 - `x++` // `x=x+1`
- decrement operators "--"
 - `--x` // `x=x-1`

说明

- can only be used for variables, not for expressions
- represent add 1 or subtract 1 to the calculated data
- can appear before or after the variable, the results are consistent
- When there are other operations in the expression, when ++ or-- appears in front of the variable, the variable first increments or decrements, and then performs other operations. When it appears behind the variable, performs other operations first and then increments or decrements.

Windows taskbar: Search Windows, Hand up, Camera On, Unmute, Share Screen, Messages, Settings, Leave Class. System tray: 13:38, 24/03/2021.

Figure 9. Documentation For Programming Course

孔帆发起的在线课堂 | Class on for 00:40:34

```

1 package test;
2
3 public class Demo2 {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7         int a = 12;
8         System.out.println("a = " + a);
9         System.out.println("ones places is:" + a % 10 + "tens places is:" + a / 10);
10    }
11 }
12
13 }
14

```

Windows taskbar: Search Windows, Hand up, Camera On, Unmute, Share Screen, Messages, Settings, Leave Class. System tray: 14:10, 2021/3/24.

Figure 10. Documentation While Studying Online

6. Broadband Access Technology Course

李洁发起的在线课堂 | Class on for 01:10:00

GPON T-CONT Types

BW Type	Delay Sensitive	Applicable T-CONT types				
		Type 1	Type 2	Type 3	Type 4	Type 5
Fixed	Yes	X				X
Assured	No		X	X		X
Non-Assured	No			X		X
Best Effort	No				X	X
Max.	No		X	X	X	

- Type 1 only consists of fixed bandwidth with defined time slot, suitable for service such as E1/T1
- Type 2 only consists of assured bandwidth (defined bandwidth without defined time-slot), suitable for services such as VOD.
- Type 3 consists of both assured and non-assured bandwidth, suitable for business customers.
- Type 4 only consists Best Efforts Bandwidth, suitable for Internet Service.
- Type 5 is a mixture of Fixed, Assured and Best Efforts bandwidth, which is suitable for most services.

23

Hand up Camera On Unmute Share Screen Messages Settings Leave Class

Activate Windows
Go to Settings to activate Windows.

Search Windows 8:10 31/05/2021

Figure 11. Documentation For Broadband Access Technology

李洁发起的在线课堂 | Class on for 01:12:30

Summary

- Definition of telecommunication network
A certain number of telecommunication nodes (including terminal equipment and switching equipment) and the transmission link of the connection node are organically combined to realize the communication system of information transmission between two or more specified telecommunication endpoints.
- Classification of telecommunication networks
Information Type, Network Function, Network Role and Network Scale (Wide area network (WAN), Metropolitan area network (MAN))
- Hierarchical Structure of Metropolitan Area Network

Hand up Camera On Unmute Share Screen Messages Settings Leave Class

Activate Windows
Go to Settings to activate Windows.

Search Windows 8:13 18/06/2021

Figure 12. Documentation While Studying Online