Chapter 1

Transportation, Public Transport

Chapter 1 Introduction and Its Background In today's world of rapid change, many people are now expecting a more comfortable life than before. Because of improvement of technology, machines are now made by human hands and its success helped many people around the world. With these machines, the human effort had been reduced. Human beings are not satisfied about what they've made. They improved the computers to store many data and to create applications that will help the users. By that, database management system had been made. The work now is not time-consuming, hassle-free and easy to be done. Using database system nowadays, is very helpful to the companies or small businesses to have a more understandable and reliable system for them to have a more comfortable job. The database that the developers will make will benefit bus companies to help the administration, employees and the costumers. Saulog Transit Inc. is a bus transportation company in the Philippines servicing routes between Cavite, Metro Manila, and Zambales (Olongapo City) or Benguet (Baguio City). Its sister company, Dagupan Bus Co., Inc. is its arm covering major routes in Pangasinan and some areas in Northern Luzon. This Company Offers De Luxe, Air Conditioned and comfortable ride for public transportation customers. Saulog Transit Inc. was named after its founder, Alejandro Saulog, the grandfather of the presently majority of the Saulog clan consisted of Teodoro Saulog, Susan Saulog, Melquiades Saulog, Lilia S. Venturina, and Marietta S. Vergara. The company started operation in 1946 with orangy yellow, silver and dark green bus paint design. In 1974, Saulog Transit Inc. acquired the franchise of Villarey Transit, which it used to operate its sister company, Dagupan Bus Co., Inc. initially with only

six Mitsubishi Fuso buses as part of its expansion in Northern Luzon. It was in 2010 when Saulog Transit and Genesis Transport Service Inc. signed a memorandum of agreement for the long time cooperation and allocation of the franchise of the former. Genesis Transport answered all of the assets of Saulog Transit when it was found out that the Saulog clan was unable to shoulder all of the annual contributions to SSS, Pag-ibig and PhilHealth. Hence, Saulog Transit and Dagupan Bus Co., Inc. acquired new bus units. General Objective: To design and develop a database management system for the Bus Liners to help them have a more understandable, effective, and efficient method of retrieving and storing data. Specific Objective: The creators want to make an improved data storage purposely made for those that are having a hard time to understand and operate a complex device. To add a more comprehensible ticketing system that will help commuters to have a better understanding about the fare that they are paying. To have a more efficient way of keeping and tracking transactions. Significance of the study The result hopes to promote a better system for the administration that is responsible to run the company. For the Employees and staff that are working for the company to have a more understandable system and for the costumers to have the enough data that they need. Scope and Limitations The researchers will construct, design and implement a database that will record all the data that is necessary on the operation of the bus company. In doing this, they also want to help them ensure that all the information and transactions in and outside the company are being recorded appropriately and are being updated every time. This in turn could lead in more efficient and effective use of their resources and time. We might doesn't have other

tables on other data that they want to store because we also don't know what the other bus company want for them to completely store all the data that they will input. But we ensure that they can input the major data's that is need to store. CHAPTER II REVIEW OF RELATED LITERATURE AND RELATED STUDIES Foreign Literatures: P. K Singh (2010), an author of a book about database says that a database isn't necessarily contained in a computer. Any book or notes that have information is a database. Even a telephone directory is a database. The term database refers to an organized collection of information stored in a computer. Databases are used for storing and maintaining large amount of data or information. Even if you have information about the people or your employees in papers that you store in a drawer, that's still a database but database management system is an organized system that will help you store any data that you want to store through computer. According to Ward and Defoulas (2006) that the database systems developed because of need to store a large amount of data and retrieve that data quickly and accurately. Back in the mid 80's and 90's, there are so many cards or papers that have information about the loans or books that the students borrowed from the library. But now, there will be an instant receipt about the transaction that you did or the book t hat you borrowed from the school with the date you borrowed it and when you will return it. You cannot give a costumer a piece of paper that is handwritten and it has data on it because it is very time consuming. If you have the right database system for that, it will be easily done by a computer and instantly print it. There, it will give you all the data that the costumer wants to see. John V. Petersen (2011) noted that the main difference between modern

databases and the old paper-based ancestors deals with the ability to retrieve data. In a modern system, finding all the books published in the year 2000 is as simple as typing a query and asking the computer a question. Chances are, you will get your answer back in a second. In an old paper-based system, the task might take several minute or several hours then if you find out what you are looking for, it has only several data that and it's not enough. If a company is using a database management system, it's not hard to search all the information that you need. You can also give your costumer the right data in seconds. Local Literatures: Micheal J. Hernandez (2003) says that database is an organized collection of data used for the purposes of modelling some type of organization or organizational process. "It really doesn't matter whether you're using a paper or a computer software program to collect and store the data. As long as you're gathering data in some organized manager for specific purpose, you've got a database". Database is an organized system that will help us to find the data that we need through a computer. It's difficult to store data in a piece of paper because it is tangible and fades as time pass by. The data may also loose or taken. According to Carlo Zaniolo (1997) that the area of database systems has experienced sustained vigorous growth during the last three decades because of the strong pull of commercial applications and the constant push of technology and research advances. " Database also gained much recognition as a field for computer science research and university teaching. Without the technology, database management will not exist. With the help of many programmers and researchers, database management system is well known and used by many companies. Steven Roman (2002)

expresses that if the database system did not improve, many people will be problematic in saving information in papers and retrieving it easily. " To drive the difference home, consider the 16-million-book database of the Library of Congress. Suppose the database contains books from 10, 000 different publishers. A publisher's address column in a flat-database design would contain 16 million addresses, whereas a multitable approach would require only 10, 000 addresses. Now, if the average address is 50 characters long, then the multitable approach would save: (16, 000, 000 — 10, 000)x50= 799 million characters". It's important to have a large memory in a computer to save much information as many as possible because it can help you have a more unrelenting business and bother-free job. Synthesis These literatures prove that database management system is really helpful in everyone who's in the field of business. Database management system really changes the process of businesses around the world. The authors constantly say database helps each and everyone. Foreign Studies The Kowloon Motor Bus Company (KMB) is the largest bus operator in Hong Kong, it is responsible for carrying around 2. 7 million passengers a day and coordinates the movement of 4, 040 buses. By utilizing Sybase Adaptive Server Enterprise (ASE), PowerBuilder and Pocket Builder, KMB built two mission critical systems: the Traffic Operations Management System (TOM) and the Terminus Management System (TER). Using these systems, KMB can now better handle the company's resource allocation, improve the effectiveness of depot staff in their daily duties and provide greater mobility to its workforce at the terminals. Mr. Tommy Leung, Head of Information Technology Department of KMB says that the databases that they used

(Sybase ASE, PowerBuilder and Pocket Builder) have transformed their business, taking it to the next level of efficiency and performance. . The Database that they have helped them to have increased work efficiency, optimizes resource allocation, reduces training time, reduces clerical work and increases mobility. Before the advent of internet bookings, you either needed to visit a travel agency or go to the bus station to buy your bus tickets in Mexico. In recent times, Mexico's bus companies have been developing their own web sites and some are offering online booking facilities. However, their online systems are not as well developed as the airlines, and most only accept credit card payments from bank cards issued in Mexico. However, the web sites are worth visiting to learn about the bus company, its services, and to see the bus schedules. Before now, the only way to find a bus schedule was to visit an affiliated travel agency, by visiting the bus station, or telephoning one of the sales offices run by the bus companies. But by the help of the internet websites and web developers, it's now possible to reserve a seat to a bus liner by visiting its websites. A dynamic and ambitious company, Metroline is proudly serving one of the world's busiest cities. Their primary business is the provision of bus services under contract to London Buses, operating through an area that extends from North to West London, including Central London and the City. Booking Metrolines Travels Bus tickets is easily done with MakeMyTrip Online Bus. Browse through Bus availability, Routes and schedule information for Metrolines Travels. Payment options Include Credit Card, Debit Card, Cash Card or Online bank account. With the system that they are using, it's not impossible for them to have much costumer in a day. Just one click away,

you can instantly book or reserve a seat through web sites. Cards also helped the people to have instant cash wherever they are. Local Studies Victory Liner, one of the largest provincial bus companies in the Philippines, is now providing online booking for its passengers. Passengers can reserve a ticket online and have the ticket delivered right at their doorsteps. They are currently offering for Baguio & Cagayan valley trips. Here in the Philippines, there are few buses that have database systems. The rest is using old-style data storing database that is very hassle and time consuming. So in this project we're inspired to create a database for bus liners that do not have one. Philtranco provides ordinary non-aircon, airconditioned, and executive bus services. As a dominant force in the transport industry, Philtranco is also positioning itself as a cargo or document-handler, forwarder and carrier to its existing transport routes and destinations. In promoting the Diosdado Macapagal International Airport (DMIA) in Clark, Pampanga, as an alternate to its counterpart in Manila, Ninoy Aquino International Airport (NAIA) - Philtranco offers a hassle-free daily Manila-Clark-Manila trip schedule. Philitranco also offers online reservations for you to have a convenient way to have a ticket. The ticket will be immediately delivered on your home. Philtranco have many buses around the Philippines. Without database, they ca'nt reach the position they have now. They are really trying to reach the people for them to have a comfortable ride and enjoy the sceneries around the Philippines. Bicol Isarog Transport System Inc. is a bus company that was established in March of 2011 by its President and General manager Mr. Geraldo C. Abano and Executive Vice-President and Treasurer Jose Marco H. del Pilar. It's helping the people to have a comfortable and fast travel in

Bicol. Online reservations are also available in our company. Just go to our website or a ticket provider and you can ride our busses from manila to bicol or vice versa. Online reservations are now popular because many people nowadays have their internet in homes, in cell phones and smart phones. They can reserve a ticket or a seat whenever and wherever they want. Synthesis Bus database management will help each and every bus company to have a more Controlled data redundancy, Enforcing data integrity, Data sharing, Ease of application development, Data security,. Multiple user interfaces, Backup and recovery. And to ensure that they will have many passengers, they also create web sites to help the people to reserve a seat. CHAPTER 3 EXISTING SYSTEM OF SAULOG BUS COMPANY Business Process Saulog offers passenger can enjoy the scenery through wide windows during the day travel for some Aircon and Gold Service buses. If passengers prefer to travel on a budget. Travel by Bus For outings, conventions, and executives travel in groups -Saulog offers charter services for all occasions, may it be for business or private trips. We provide personalized services for local or long distance charters and tours in the Philippines. Saulog charter services offers competitive pricing, professionally trained bus crew, and an added service of an onboard steward/stewardess can be arranged. Moving people since 1914, we have the expertise to accommodate your travel needs may it be large or small, efficiently, professionally and, safely to say the least. Featured Buses We have the buses to accommodate your charter and touring needs!. Airbus Coach — a 2 by 1 column seat arrangement, 26 seater capacity, air-conditioned, on-board restroom, and more legroom to relax and catch some shut-eye. Gold Coach — a 2 by 2 column seat arrangement, 40 seater

capacity, air-conditioned, and on-board restroom. Standard Aircon Coach — a 2 by 2 column seat arrangement, 44 seater capacity, and standard air-conditioned bus. Technical Background START a Saulog Transit Inc., like other major bus companies, has modernized its fleet. Some of its buses are equipped with automatic transmission (GM Allison Automatic Transmission), particularly their Nissan Diesel engine powered buses. As of now, the company is now utilizing Hino, Mitsubishi Fuso, Isuzu, and Nissan Diesel buses. Recently, they have also been acquiring Yutong, Golden Dragon, BCI Bus and Daewoo buses. Saulog Transit Inc. will continue to acquire new bus units to accommodate the growing population users of mass public transportation. Training within a week Checking Requirements System Flowchart b no Passed? delay yes Sign contract b Passed? no Interview yes b END b Passed? a yes CHAPTER 4 PROPOSED SYSTEM OF DVF BUS COMPANY Technical requirements: Hardware Figure 4. 0 Processors1 Intel® Core™ i5 Quad Core; Intel® Core™ i3 Dual Core; Intel® Pentium® Dual Core; Intel® Celeron® Dual Core. Chipset Intel® H61 Express Chipset Video2 Integrated Intel® HD Graphics 2000; optional 1GB AMD RADEON HD 6450; optional 512MB AMD RADEON HD 6350 Memory3 Up to two DIMM slots; Non-ECC dual-channel 1333MHz DDR3 SDRAM, up to 8GB Networking Integrated Realtek LOM, optional Broadcom BCM95722 PCIe card, optional Dell 1520 802. 11n WLAN I/O Ports 8 External USB 2. 0 ports (2 in the front, 6 in the back) and 2 Internal USB 2. 0 (1 for SFF chassis); optional PS2 dongle; 1 RJ-45; 1 VGA; 1 HDMI (optional DVI dongle); Front Panel Mic-in, Headphone out, Back Panel Mic-in/Line-in, Line-out, optional Parallel/ Serial PCIe card (MT), optional USB 3. 0 PCIe card Removable Media Options DVD+/-RW; DVD-ROM;

Dell 19 in 1 Media Card Reader (MT & DT only) Hard Drives4 Options 3. 5"
Hard Drives: up to 1TB 7200 RPM SATA 3. 0Gb/s Supports Dell's Flexible
Computing Solution diskless option Software Figure 4. 1 Any anti-virus like
Norton Anti Virus 2010. Operating System Options Microsoft® Windows 7®
Home Basic SP1 (32/ 64 bit), Microsoft® Windows 7® Home Premium SP1
(32/64 bit), Microsoft® Windows 7® Professional SP1 (32/64 bit), Microsoft®
Windows 7® Ultimate SP1 (32/64 bit) Windows Vista® Home Basic SP2
(32/64 bit), Windows Vista® Business SP2 (32/64 bit), Windows Vista®
Ultimate SP2 (32 bit) Ubuntu® Linux (select countries); FreeDOS for N-series
Dell Data Protection / Access, Chassis lock slot support, optional Chassis
Intrusion Switch, Setup/BIOS Password, I/O Interface Security, BIOS support
for optional Computrace6. Business Process A bus transport business plan
needs to know what the market need is for transportation services and who
the major players are currently in your market. The competitive comparables
can give you a good feel for the challenges you will face, the revenues you
can earn, and the sort of weaknesses in other companies that you can
capitalize on to grow your own business. The bus transportation model is a
simple and time-tested business model, but with escalating fuel costs and
fluctuating consumer demand, it's hard to estimate the long-term
profitability without having a list of assumptions you can tweak in the
financial model. This plan should answer: How many vehicles will you
operate? What are your up-front costs? Do you know the ongoing operational
expenses? How many drivers and other employees will there be? How do you
plan to handle maintenance issues? The business plan for a bus transport
company needs to show a strong marketing plan as well so that readers can

see you know how to grow the brand and gain market share from other transport providers (bus, train, taxi etc.). You should include a business summary that identifies the owners and key employees, as well as the hiring timeline and wages for all staff. Appendix A: Refferences * http://www. mchenry. edu/library/tutorial/Purpose. htm * http://en. wikipedia. org/wiki/Database_management_system * http://en. wikipedia. org/wiki/Saulog_Transit_Inc. * http://www. sybase. se/detail? id= 1056486 Singh, P. (2011), Database Management System Concepts (online), Retrieved: January 11, 2013. Patricia Ward & George Dafoulas (2011), Database Management System (online), Retrieved : January 11, 2013. * P. K Singh , " Database Management System Concepts".