

E-ticketing essay



PurposeThe purpose of this undertaking is to: * Learn about the system life rhythm and how it is implement in the existent life state of affairs * understand how a database direction system work and how to use this cognition to pull off information system * implement the six stage problem-solving process of the system rhythm for analyzing the coach E-ticketing system to choose the best system * Learn about Systems analysis and design processs and how it can be used in work outing jobs.

Aim* After finishing this undertaking pupils should be able to find what actions to take and how to utilize computing machine engineering to help them. Student should be able to make all six stages:

* Phase 1-Preliminary Probe: specify the job. suggest alternate solutions and fix short study.

* Phase 2-Systems Analysis: Gather and analyze informations utilizing informations flow diagram or systems flowchart.

* Phase 3-Systems Design: design alternate systems. choose the best system. and compose a study

* Phase 4-Systems Development: Create database with appropriate Fieldss. signifiers. questions and studies

RecognitionI would wish to thank the undermentioned people who contributed towards doing the undertaking successful: * God – for supplying me with wisdom. strength and intellect power to help me to finish this undertaking. * MR. Lal (Computer Teacher) – for steering me on how to make this undertaking. * My parents – for supplying me with finacess and

giving moral support to do this undertaking a successful 1. * All pupils and friends who have answered my questionnaires

Methodology

In roll uping this research work the undermentioned research tools were used under the two research methods. that is:

Primary Research* QuestionnaireTen questionnaires were distributed to the Staffs of the coach company and the questionnaires were collected back and analyzed.

Secondaryrch

* InternetInternet was accessed to roll up relevant information about research subject.

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ntroductionComputer is considered as one of the widely used engineering available in about all organisation presents. However a batch of attempt is required before a computing machine system is setup. The procedure required for this consideration is called the “ SYSTEM ANALYSIS and DESIGN” . System Analysis and Design is an organisational procedure of developing and keeping systems. It helps in set uping a system undertaking program. because it gives overall list of procedures and sub-processes required for developing a system. The stages involved in system life rhythm are as follows: * Preliminary probe

* Systems analysis* Systems design* Systems development* Systems execution* Systems care

The advantages of system analysis is that it can salvage the company money because it can cut down mistakes and the demands of IT for repairing jobs. Another advantage is that without system analysis undertaking direction methods could be difficult to execute. whereas system analysis enables better direction methods. The fact that the system is so easy to go through on to others makes it another advantage. Companies can easily portion with employees the proper manner to execute the system analysis. Furthermore, the disadvantage of system analysis and design is foremost the complexity of understanding the processes carried out in the system. secondly the demand for particular preparation for users and lastly cost and money the biggest job with the SAD is that it takes a great trade of cost. when a concern takes so much cost to analyse the undertaking, it may do it hard to make the information system by a coveted terminal day of the month. Traveling on, system analysis and design is widely used in industrial undertakings to guarantee a solution is reached which fulfills the demands of the user. the same technique has been used in execution of a cricket bowling system which has been designed to animate any bowling bringing.

Phase 1: PRELIMINARY Problem preliminary probe stage. the jobs are briefly identified and few solutions are suggested. A proposed undertaking is investigated to find the demand for a new information system. This is normally requested by a terminal user or director who wants something to be done that is not soon being done. In stage 1 the system analyst is concerned with three undertakings: * BRIEFLY DEFINING THE PROBLEM-It

means to analyze whatever current information system is in usage.

Determining what information is needed by whom, when, and why is accomplished by interviews, electronic mails and doing observations. If the information system is big the study is done by the system analyst. But if it is little, so it is carried out by a terminal user.

* SUGGESTING ALTERNATIVE SOLUTIONS-This measure is merely to propose some programs as options to the present agreement

* PREPARING A Short REPORT-For big undertakings the system analyst would compose a short study summing up the consequences of the preliminary probe and proposing options systems. The study may besides include agendas for farther development of the undertaking. This paper is presented to higher direction along with a recommendation to go on or stop the undertaking. Management so decides to finance the 2nd stage

Problems and solutions
Problem 1 Misuse of money takes topographic point at the current phase where the populace are utilizing money to pay their menu. this enables bus drivers to sometimes charge more than the normal menu rate to riders therefore drivers gain illegal net incomes.

Problem 2 It is clip devouring whereby at the clip riders are picked up along the path. clip is wasted on paying the menu and returning of alteration. At the clip this procedure happens few proceedings of both the rider and driver is consumed. Solutions

1.) Employ a driver aid who looks into the dealing that happens in the coach. this assists in holding proper answerability in the organisation besides proctors fare rate in coach

2.) Install the coach E-Ticketing system. it's a machine-controlled system where the rider has an electronic card which they swipe into the coach company's machine. machine-controlled tax write-offs are done and a reception is issued. this helps in answerability of money coming to the organisation. this removes obstructions from the driver holding to give right alteration to each rider and therefore reduces clip spent on transporting out a peculiar dealing

Report Sigatoka Town Vesi Lane 23rd April 2013

The Director Fiji Bus Company Suva Fiji

Dear Sir/Madam Rhenium: Phase 1 Preliminary Probe

I Kunal Singh as the system analyst for Fiji Bus Company have exhaustively investigated the operations at your company and have come up with the undermentioned jobs. The undermentioned jobs are: * Misuse of money takes topographic point at the current phase where the populace are utilizing money to pay their menu. this enables bus drivers to sometimes charge more than the normal menu rate to riders therefore drivers gain illegal net incomes. * It is clip devouring whereby at the clip riders are picked up along the path. clip is wasted on paying the menu and returning of alteration. At the clip this procedure happens few proceedings of both the rider and driver is consumed. There are solutions to the jobs stated supra.

They are: * Employ a driver aid who looks into the dealing that happens in the coach. this assists in holding proper answerability in the organisation besides proctors fare rate in coach * Install the coach E-Ticketing system. it's a machine-controlled system where the rider has an electronic card which they swipe into the coach company's machine. machine-controlled tax write-offs are done and a reception is issued. this helps in answerability of money coming to the organisation. this removes obstructions from the driver holding to give right alteration to each rider and therefore reduces clip spent on transporting out a peculiar dealing The best alternate suggestion is put ining the E-Ticketing System this would extinguish unneeded holds and prevent corruptness in the coach industry therefore it is recommended that the E-ticketing undertaking to take topographic point so that future quandary is avoided. I seek your permission to travel to Phase 2 analysis. Yours Faithfully

.....Kunal Singh (System Analyst) .

Phase 2: Analysis

In the systems analysis. the present system is studied in deepness and new demands are specified. Data is collected about the present system. the information is so analyzed and new demands are determined. This is accomplished through: Gathering DATA- information is collected about the current system that is manual recording of information. 1. First informations was collected through observations and interviews with the higher direction and drivers. Some of the information was that through observation it was noticed that abuse of money takes topographic point at the current phase

where the populace are utilizing money to pay their menu this enables bus drivers to sometimes charge more than the normal menu rate to riders therefore drivers gain illegal net incomes. 2. Second information was collected through the agencies of questionnaires which was given to riders. drivers and the direction. The information from questionnaires was used for analysis. 3. Third. information was obtained from analyzing paperss that describes the formal lines of authorization and criterion operating processes of the organisation. An organisation chart was used to demo the degree of direction of the recording of records.

Organizational Chart

ANALYZING DATA- In this measure. the workability of the current system is analyzed and the weak countries are pinpointed. It was found out that the manual system of entering was clip devouring therefore doing more work loads to the direction. There are many tools available to help in analysing the information gathered. These of which are: * CHECKLIST-A checklist is a list of inquiries. It is helpful in steering the system analyst through cardinal issues for the present system. * Top-down METHODOLOGY-Is used to place the top degree constituents of a complex system. Each constituent is so broken down into smaller and smaller constituents. This sort of tool makes each constituent easier to analyse and cover with. * DATA FLOW DIAGRAMS-Show the information or information flow within an information system. The information is traced from its inception through processing storage and end product. * AUTOMATED DESIGN TOOLS-Software bundle that evaluates hardware and package options harmonizing to demands given by the system analyst. It is besides called computer-aided package technology tools (CASE

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TOOLS) . They enable several systems analyst to automatize and to organize their attempts on a undertaking. * GRID CHARTS-Shows the relationship between input and end product paperss. * DECISION TABLES- Shows the determination regulations that apply when certain conditions occur. It besides shows what actions should take topographic point as a consequence. * SYSTEMS FLOWCHARTS-Show the flow of informations. processing and end product or distribution of information.

System Flow Chart

Documenting THE SYSTEMS ANALYSIS STAGE-The system analysis phase is typically documented in a study for higher direction. The systems analysis study describes the current information system. the demands for a new system and possible development agenda. Management surveies the study and decides whether to go on with the undertaking.

Report

Sigatoka TownVesi Lane23rd April 2013

The DirectorFiji Bus CompanySuvaFiji

Dear Sir/MadamRhenium: Phase 2 AnalysisI. Kunal Singh. as the system analyst for Fiji Bus Company. have studied the present system in deepness. First I have gathered informations utilizing an organisation chart. I have showed formal lines of authorization in the Fiji Bus Company. After garnering information. I have analyzed the information to demo how information presently flows within Fiji Bus Company. The tool I have used for this is asystem flow chart that shows the flow of informations within the Fiji Bus

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Company from the tickets issued to gross for figure of riders. I look forward for a favourable answer to go on with Phase 3 design. Yours Faithfully

.....Kunal Singh (System Analyst)

Phase 3-System Design

In the systems design stage. a new or alternate information system is designed. It consists of three undertakings: * Designing alternate systems* Choosing the best system* Writing a systems design study

Planing Alternate Systems-In about all cases. more than one design can be developed to run into the information needs. Systems analyst evaluates each option system for feasibility. The intent of feasibility survey is to measure the cost and benefits of the proposed system. By feasibility we mean three things: * Economic feasibility

Q: will the costs of the new system be justified by the benefits it promises?

A: yes. because holding records computerized will do work easier and faster and the consequences generated will be accurate. * Technical feasibility

Q: Is the hardware. package and trained people available to do the system work? A: yes. ground being is that. after the drivers are trained/taught on how the E-ticketing system works. it is evidently possible for them to interact with the hardware and package therefore doing it productive. * Operational feasibility

Q: can the system really be made to run in the Fiji Bus Limited's system or will the staff defy it? A: yes. the system will be made possible to run in the

Fiji Bus Ltd and no. the staff will be unable to defy it because harmonizing to analysis phase the staff urgently acquired for a new system.

Choosing best system- this can be done by sing four inquiries. These are whether the system fits in with the organisation. is it flexible and modifiable. is it secured against unauthorised usage and are the benefits worth the cost.

Writing Systems Design Report- prepared for higher direction and describes the alternate designs. It presents the costs versus benefits and normally concludes by urging one of the options.

Planing Alternative System Previous System- Manual Way Manila Folder:

Cost 40 Manila Files \$ 0. 70 ten 40 = \$ 28 Paper Cost - 2 boxes 5rim - 1 box 1 rim - \$ 12 (12 x 5) x 2 = \$ 120 Pen Cost \$ 0. 80 ten 300 = \$ 240 Storage

Cabinet Cost Cost = \$ 900 Cost of Labour 4 people pull offing the system and

are paid \$ 250 fortnightly Yearly Salary (\$ 250 x 4) x 26 = \$ 26000 Total

Cost \$ 28 + \$ 120 + \$ 240 + \$ 900 + \$ 26000 = \$ 27. 288 | New System Cost

of the New System = \$ 2076 Cost of Labour Maximum of 3 people are

required Yearly salary = (\$ 250 x 3) x 26 = \$ 19500 Total Cost = \$ 1300 + \$

19500 = \$ 20800 | PROFIT = Previous cost - New system = \$ 27. 288 - \$

20800 | \$ 6. 488 |

The E-Ticketing Machine Previous System Bus company has 50 buses Each

coach makes two paths per day Total Revenue · 5 coachs seat 90 riders and

bear down \$ 0. 30 each rider for one path \$ 27 x 5 = \$ 135 · 10 coachs seat 90

riders and bear down \$ 0. 20 \$ 18 x 10 = \$ 180 · 20 coachs seat 90 riders and

bear down \$ 0. 50 \$ 45 x 20 = \$ 900 · 15 coachs seat 90 riders and bear down

\$ 0. 70 \$ 63 x 15 = \$ 945 \$ 135 + \$ 180 + \$ 900 + \$ 945 = \$ 2160 \$ 2160 x

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$2 = \$ 4320$ per twenty-four hours $\$ 4320 \times 7 = \$ 30240$ ($\$ 30240 \times 52$) / 12
 $= \$ 131040$ Total Gross: $\$ 131040$ per month Entire Expenses Fuel
 (MONTHLY) = $\$ 11000$ Maintenance = $\$ 2600$ Wages = $\$ 35000$
 Accountability Errors = $\$ 7000$ Total Expenses = $\$ 55600$ Net Revenue = $\$$
 $131040 - \$ 55600 = \$ 75440$ | Current System Total Revenue = $\$ 131040$
 Total Expenses Fuel = $\$ 11000$ Maintenance = $\$ 1000$ Wages = $\$ 35000$ E-
 Ticketing Machine = $\$ 400$ IBM Think Centre = $\$ 329$ Total Expenses = $\$$
 47129 Total Revenue = $\$ 131040 - \$ 47729 = \$ 83311$ |

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The Director Fiji Bus Company Suva Fiji

Dear Sir/Madam Rhenium: Phase 3 System Design To get down with. in this
 stage two alternate systems were designed. The first option was engaging of
 coach draughts to assist in the " paying and receiving" of menus and to
 supervise the menu rate charged. Three feasibility surveys were done.
 The first survey was to find if the option was economically fit for the
 company. Though the thought was sensible. the costs were excessively
 much given the fiscal position the Fiji Bus Ltd Company was in. The 2nd
 survey was to happen out if any new hardware. package or new preparation
 was needed. for this first alternative the reply was no. On the other hand.
 the 2nd option was the execution of the E-ticketing system in all coaches.
 which will hold a entire disbursement of $\$ 55600$ (approx) and a net gross $\$$
 75440 . The 3rd survey was to happen out if the normal operation for all
 coaches would be altered if the new system was put in topographic point.

Furthermore, it was decided normal operation will be altered as some coach companies decided to utilize normal operation as they did earlier.

Yours dependably.....Kunal Singh

Phase 4 System Development

In the System Development stage, the system analyst has to garner proper hardware and package to make the system. The three stairs for this stage are:

* Develop package.* Acquire the hardware* Test the system. Developing package
In order for the Fiji Bus Companies Ltd to get down with this package that is E-ticketing demands to be purchased as off the shelf packaged package and per chance modified it. Requirements to develop the new Software are as follows:* Windows XP/Sp3 or a newer version of an Operating System * Microsoft Office 2007 or a latest version of MS* Internet entree to do a communicating link/bridge between the E-Ticketing Machine and the Computer * Firewall* Antivirus Software* A Modified or a custom design Software to do communicating possible between the E-ticketing machine and the computing machine
Getting hardware
Since there will be an E-ticketing system in topographic point of the manual system, there will be new * 15"/17" Proctor* An I5 processor* 2 GB Ram or higher* 320 GB difficult thrust or higher* Keyboard* Mouse* Printer* CD/DVD Writer* E-Ticketing Machines

Testing the new system
After the E-ticketing package has been installed, sample informations is fed into the system. The processed information is so evaluated to see whether the consequences are right. In this system cards

are used by the populace as the money they use to pass as their coach menu. The E-ticketing cards are easy to utilize as it merely requires the user/public to scan the card onto the machine. This of which was proven first manus by the Prime Minister of Fiji when he boarded the coach from Suva to Nausori. At each measure. the new system will be closely looked at and if necessary alterations would be made if any job arises