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THIRAVIYAM: A Sales Management System in Tamil using PANDITHAM

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1.0 Introduction

Ever since the advent of Windows Programming, people have succeeded in bringing computers to their respective languages. But, the process of business activities are still performed in English language only. Nobody thought of having business outputs in Thamizh.

It is evident that majority of the population do not know English. When he/she purchases something in a super market, cash bills are given only in English. This will disable them to verify the items they have purchased. Even while billing, the customers may not be aware that they are billed for the right items. To overcome all these difficulties we need a system that will have a localized language interface and have cash bills in the native language of the customer. This system is aimed at bringing out financial solutions for a business concern in Thamizh. It was designed in such a way that anybody who knows only Thamizh can use this system. This system makes use of the character-oriented protocol PANDITHAM (A Protocol for ApplicatioNs Development In THAmizh and Multilingual computing). Microsoft Visual Basic 6.0 is used for the front-end development and Microsoft Access is used as the Back-end. This system was actually developed for "Pazhamudir Nilayam" in Coimbatore. It is a wholesale and retail shop of fruits and vegetables.

2.0 About the System

It is designed as a multi user system. This system is typically divided into two parts, one is THIRAVI YAM Administrator and the other one is THIRAVIYAM Client. THIRAVIYAM client can only be used for the billing purpose. It can be installed at the workstations. THIRAVIYAM administrator has got all the features to administer the clients. Sales data can be analyzed. Clients or workstations can be monitored online, so that it becomes easy to find whether all the workstations are busy or not. THIRA VIYAM administrator should be installed in a single system. Remember that the complete interface for both THIRAVIYAM client and administrator will be in Thamizh only.

A customer can have items in the cash bill printed in sorted order. This will ease the user to search for an item in the bill. All the reports including cash bill can be printed in Thamizh.

3.0 Features of the System

All the functionalities of the system are presented here in this section. Features of both THIRAVIYAM client and THIRAVIYAM administrator are explained.

3.1 Features of the THIRAVIYAM Administrator

This unit of the THIRAVIYAM runs in a single system of the business concern. It can be used as a monitoring tool for all the clients. It manages the database of the whole system. This version of the THIRAVIYAM uses Microsoft Access as the database. The data pertaining to the Sales Depot are stored in PANDITHAM format, which essentially means that the storage requirement is very minimal. Provision to add new items, update existing items are provided in this unit. Rate can be changed, so that it will reflect immediately to all the clients of the system. The price and quantity sold for each item is archived for statistical analysis. Customer details can also be maintained. Registered customers are allowed to purchase items on a credit basis. This system can also handle the credit-based sales.

Users of the whole system are managed by the administrator. The user registered by the administrator can only be able to login at the client side. Each user's login time and logoff time is archived for use by the administrator. Total sales done by a user during his/her working hours is managed.

Various graphical outputs and statistical outputs can be generated to analyze the sales. Receipts can be prepared for the customers. Here, the receipt amount can also be printed in Thamizh words. An online monitoring tool is provided. Using this facility, clients can be monitored online. Various reports are provided and it can be printed in both Thamizh and English. A mini bi-lingual word processor is also included which supports Thamizh and English. The administrator can change the printer settings, time interval of the monitoring tool, etc.

3.1 Features of THIRAVIYAM Client

This unit runs at the workstation of various cash counters. Only, billing facility is provided in this unit of the software. Still, facility is provided to print bills in a sorted fashion. Bills can be printed in both Thamizh and English. The complete interface of this software unit is also presented in Thamizh.

The process of sorting the multilingual data that is based on Glyph or C-V scheme, takes much time, since, it requires parsing. But, sorting of multilingual data represented in PANDITHAM format becomes very easy. The user can change the settings of the client using the client settings facility. Here, he/she can change the settings of the output printer.

4.0 Sample Screens

Screen 4.1 shows the Cash bill entry screen snapshot of the THIRAVIYAM client.

Screen 4.2 shows the graphical output of sales of individual items for a month.

Screen 4.3 will show the details of all the credit bills of a customer for a month.

The receipt generation facility is shown in screen 4.4. Screen 4.5 shows the Settings screen provided in the THIRAVIYAM Administrator

Screen 4.1 Cash bill entry screen

Screen 4.2 Graphical output showing individual item sales for a month

Screen 4.3 Output showing the credit bill details of a customer for a month
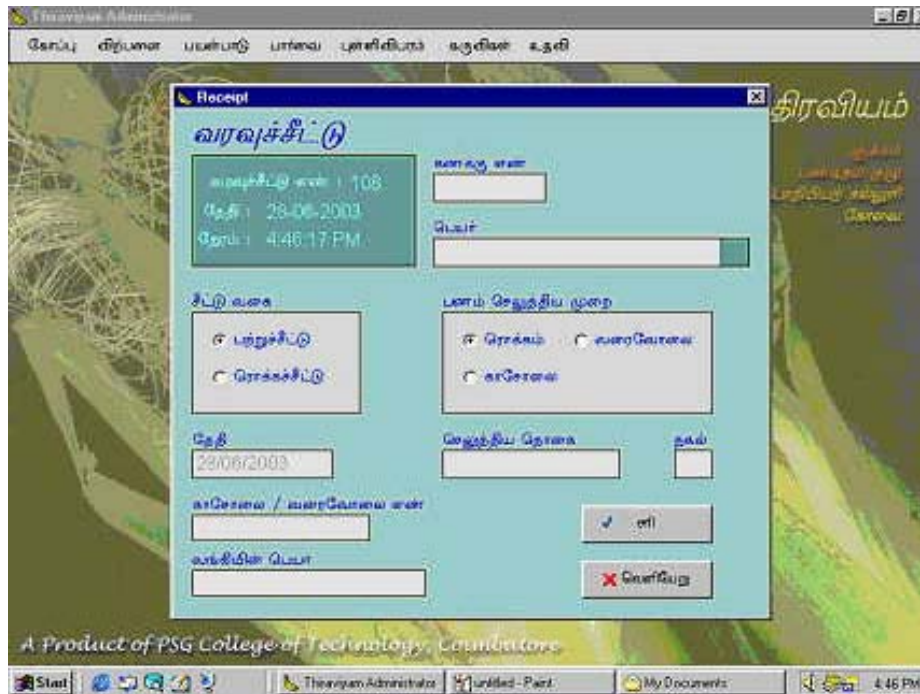
Screen 4.4 Screen for generating receipts for the customers.
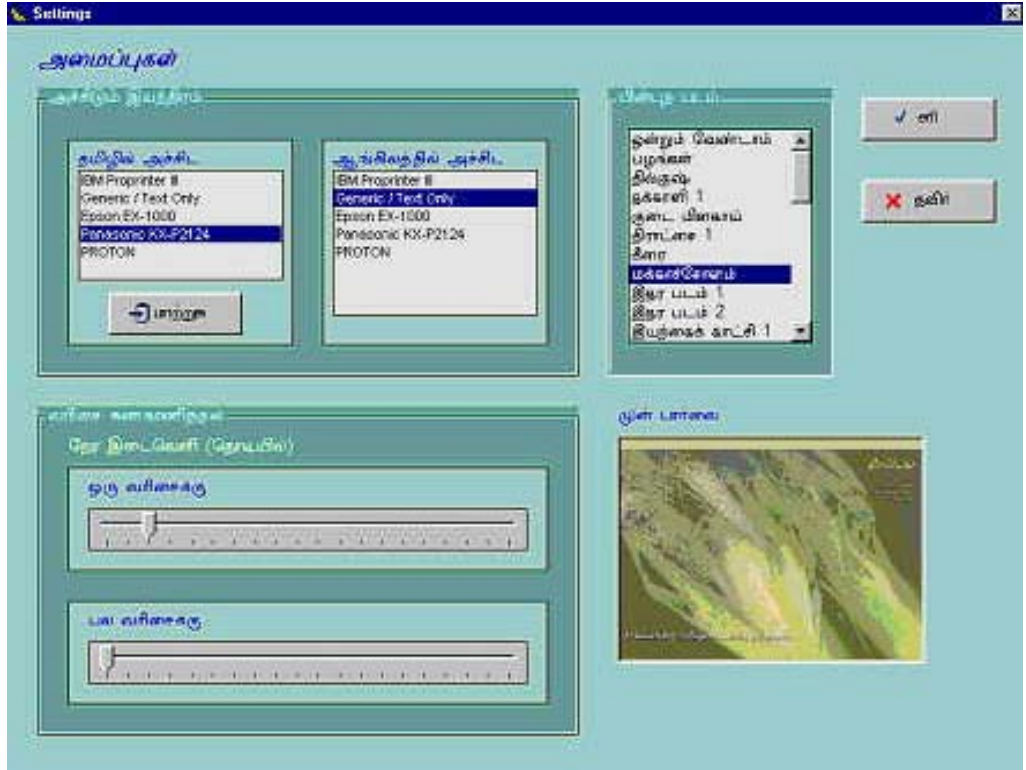
Screen 4.5 Settings Screen provided in the THIRAVIYAM Administrator

5.0 Conclusion

Till April 14, 2002, the Tamil New Year Day of the Thamizh Year Chitrabanu, Data entry, Interface, Bill Generation etc. were only in English at Pazhamudir Nilayam in Coimbatore. This means that a typical vegetable like ELEPHANT YAM which when appears on a bill makes the common man, one who has no deep knowledge or no knowledge of English, dream of an Elephant, rather than Senai kizhanku. In fact, one of the authors of this paper himself a victim of this. Moreover, the operators of the Terminals at various counters too have no knowledge of English, other than remembering the numbers (i.e., the Primary Key) associated with the Fruits or the Vegetables. Now that THIRAVIYAM is in place, both the Bill provider and the Bill Consumer are at ease to validate the Bill before generation by the former, and later by the latter.

The other distinct feature of this Sales Management System is that this can provide bills or interfaces either in Tamil or English as per the User's Choice. A Bonus due to this feature is that there is a pair of inherent Dictionaries to translate between English version of a vegetable to that of Tamil and vice-verse. This means that one learns ELEPHANT YAM as Senai Kizhanku and vice versa. The system can be so localized to the taste of the localities. For exam-ple, one can have the Summer Special DHARPUSANI referred to as KOSAPAZHAM in Kongu Thamizh. Hence, the need of the hour is to break the language barrier that is associated with this nice machine, and take every possible benefit that this Computer provides to the elite English group, to the Common man as well.

From a Technical perspective, the sorting of vegetable names has been due to the PANDITHAM Protocol, and storagewise it is very optimum.

Acknowledgement:

References:

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