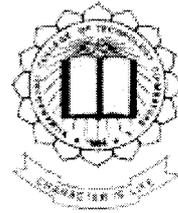


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REAL TIME BUSINESS ANALYSIS USING WAP

By

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Of

**KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE**

A PROJECT REPORT

Submitted to the

FACULTY OF INFORMATION AND COMMUNICATION ENGINEERING

In partial fulfillment of the requirements

For the award of the degree

Of

MASTER OF COMPUTER APPLICATIONS

ANNA UNIVERSITY

July, 2009

BONAFIDE CERTIFICATE

Certified that this project report titled “**REALTIME BUSINESS ANALYSIS USING WAP**” is the bonafide work of **Mr.P.VIVEKANANDAN (Register Number: 71206621059)** who carried out the research under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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TO WHOMSOEVER IT MAY CONCERN

29/05/09

This is to certify that the project entitled **“Realtime Business Analysis using WAP”** is a bonafide work done in our organization by

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in partial fulfillment of the requirement for the award of **M.C.A. (Master of Computer Applications)** degree in **Kumaraguru College of Technology**. This project work is executed using **.Net technologies** during the period of **December 22, 2008 to May 29, 2009**.

During the tenure of the project his **PERFORMANCE** was found to be **GOOD**.

For Cosmosoft Technologies Limited

K. main

Authorised Signatory



ABSTRACT

The Project entitled as “**REALTIME BUSINESS ANALYSIS USING WAP**” is done for a company for the mobile process of product sale, transaction and management through the mobile. In this project a new customer has to be registered and insert, update, delete the products through the user then it has to be identified throughout the Manager or Admin. The main aim of this project is to transfer the information through the mobile, it is required in order to make effective and efficient package for smooth functioning of the company activity.

This project presents a general architectural framework to develop and deploy portable applications and services accessible by WAP-compliant mobile terminals, extending end-to-end services between terminal and business applications. With WAP, the programming language plays an important role. In WAP, ASP.Net can be used to generate Wireless Markup Language (WML) pages dynamically. The project is web based software with WAP interface which can be used by any corporate/individuals for Customer Relationship Management operations utilizing the full features of WAP.

After the Mobile functions it is expected that the manual work errors will be eliminated and transaction activity will be done faster. The Mobile is highly flexible and portable for maintaining the status of product sale in the company. Therefore this Project aims at creating advanced user friendly application. The Project has been developed in ASP.NET as Front-end and SQL as Back-end.

ACKNOWLEDGEMENT

“Gratitude is a lively sense of future favors” – I strongly feel it’s my duty to thank to those Unselfish souls who helped me in my venture.

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LIST OF ABBREVIATIONS

ACRONYM	FULL FORM
WAP	Wireless application protocol
WML	Wireless markup language
CPU	Central Processing Unit
GB	Giga Byte
MB	Mega Byte
XML	Extensible Markup Language
HTML	Hypertext Markup Language

CHAPTER 1

1. INTRODUCTION

1.1 COMPANY PROFILE

Cosmosoft Technologies Limited, a leading corporate company with nation wide presence is the single largest source for a wide range of software products and services. Ever since its inception from the year 2000, Cosmosoft's focus has always been the excellence in quality of products and software services. Cosmosoft is a leading provider of scalable integrated enterprise software solutions for various organizations such as financial, manufacturing, health care, transportation, retail and pharmaceuticals which are located in India and abroad.

Cosmosoft has clearly established itself as a fast-growing and highly respected technology company attracting strong financial backing and blue chip clients. Cosmosoft is “The software firm with the rich set of software services & products”. Cosmosoft, ever since its inception from the year 2000 has placed itself on the path of continuous growth. Within a period of four years it has a sweeping turnover of Rs.10 million. Technology partnerships and knowledge derived from persons having years of experience have enabled us to deliver state-of-the-art solutions and to sustain customer loyalty. Our services and product offerings have been built with the combination of the latest in technology and understanding client needs in various business areas. We offer technology solutions tailored for your business.

The Project entitled as “Realtime Business Analysis Using WAP” is done for a company for the mobile process of product sale, transaction and management through the mobile. In this project a new customer has to be registered and insert, update, delete products through the user, then it was identified throughout the Manager or Admin.

1.2 PROBLEM DEFINITION

Existing system requires notepads/ tabletops/ standalone computers to view the information which is presented on the web, but in this solution only handset is sufficient enough provided the websites are wap enabled. In the earlier days the required information was given to the users directly. Then, the users communicated using telephone to the company to get the information. Next, by using Mobile the users were able to communicate from anywhere or the users communicated through Message via SMS to get the information. With the help of Internet connection, user can retrieve the information from the internet. The web browser is used to retrieve the internet information via browsers. The user gets bulk of extra information which are not required.

This project is designed for receiving real-time data from a database server running over TCP/IP based networks using server side scripting languages. Mobile devices are getting common now a day. Most of the devices have WAP enabled micro browser in them. Many network service providers are giving options for their clients to access the web services running over internet. This project is conceptualized to make use of these options.

CHAPTER 2

2. SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

Existing System requires notepads/tabletops/standalone computers to view the information which is presented on the web, but in this solution only handset is sufficient enough provided the websites are WAP enabled. In the earlier days the required information was given to the users directly. Then, the users communicated using telephone to the company to get the information. Next, by using mobile the users were able to communicate from anywhere or the users communicated through message Via SMS to get the information. With the help of internet connection, user can retrieve the internet information via browses the user get bulk of extra information which are not required.

Disadvantages of Existing System:

1. Existing System requires Notepads/Tabletops/standalone computers to view the information which is presented on the web.
2. Over the internet, the tendency of visiting other sites/viewing advertisements will be more.
3. Downloading unnecessary information causes waste of time and cost.

2.2 PROPOSED SYSTEM

This project designed for receiving real-time data from a database server running over TCP/IP based networks using server side scripting languages. Most of the devices have WAP enabled Micro browser in them. Many network service providers are giving option for their clients to access the web services running over internet. This project is conceptualized to make use of these options.

In the server side i.e., in the web server, webpage will be available in the appropriate directory. The functionality of the web page is to dynamically generate the WML pages required for the Mobile devices since WAP enabled mobile devices can understand only the WML tags. All database look up will be done by reusable class component for the real-time data.

Over the internet, the tendency of visiting other sites/viewing advertisements will be more, but in the current solution only the necessary information only will get posted on the mobile using WAP interface thus saving time and cost (since information download time will be less thus cost is also less).

- The Process Should is effective and efficient.
- Time Taken should be less.
- Estimating cost is also less.
- Security will be provided.

2.3 USER INTERFACE REQUIREMENTS

2.3.1 FUNCTIONAL REQUIREMENTS

- **AUTHENTICATION AND USER MANAGEMENT**

All the user ids and passwords are verified for their authenticity by checking the contents in the database. If the information is incorrect, access is denied, thereby ensuring security. It is also deals with the user management and has provision for a password change. To change the password, whatever may be the reason, it can be done on the lines of the conventional method of specifying the passwords and ensuring it by confirming the password again.

- **ADDRESS BOOK MANAGEMENT**

This module stores the names and the address links required for the reference by the session user. As new names and links are added to the book, they are updated to the database. Even we can update the address and delete it. To perform modifications or deletion, the user provided the serial number concerned. The result of these alterations is reflected in the database simultaneously.

- **PRODUCT INFORMATION MANAGEMENT**

All the product information is tabularized in the data store. This module enables any user to retrieve the most latest or updated information concerning the products in the market.

- **SALE INFORMATION MANAGEMENT**

The end user is required to specify the identification of the product, which he/she wishes to order. Then the user is asked to enter the quantity required. Depending on the stock availability in the inventory, the user has to change the quantity ordered. Once the admissible quantity has been entered, the order request is processed immediately and the transaction is completed. After every transaction the data store is updated dynamically.

- **EMAIL MANAGEMENT**

The electronic mail facility is an additional feature of the project. It serves as a means of swift communication among the registered members of the project domain. As with the prevalent email services, it is also provided with an inbox and compose options to compose email. This will be very useful for the users to communicate between them.

2.3.2 NON FUNCTIONAL REQUIREMENTS

Non-functional (supplementary) requirements pertain to other information needed to produce the correct system and are detailed separately.

Usability

- The application is expected to be user friendly. The user must be able to operate the application with ease.
- This application automates the sales activities and they are updated for admin view.

Reliability

- The application is expected to operate as close to 100 percent reliable.
- The application must have no defects that can interface with normal operation.

Performance

- The application is accepted to respond to the users request(s) with minimum time.

Security

The server on which it resides will have its own security to prevent the unauthorized write/delete access. There is no restriction on read access. The use of email by an Author or Reviewer is on the client systems and thus is external to the system.

Security Requirements:

- **Authentication**

Since workflow involves approvals and decision-making in a business environment, it is very important to authenticate who the participants are in the workflow. Only those individuals who are designated to perform tasks must be allowed to participate at any step of the workflow process.

- **Confidentiality**

The privacy of information entered by workflow participants must be respected. The information should not be accessible to unauthorized users.

- **Integrity**

The information should not be manipulated or changed in anyway, so that its integrity is maintained.

- **Non-Repudiation**

Since workflow involves crucial activities users should not be able to disown their actions.

- **Access rights**

The users would be able to access and work on the information as per the defined rights.

2.3.3 MODULE DESCRIPTION

This Project Consists of Seven Functional Modules,

WAP Gateway Access

The starting point of the project is a request from a WAP enabled mobile device for a resource residing in a WML supported web site. As mentioned earlier, request over a wireless media will be in accordance with WAP. This request will be converted into http based request by the WAP Gateways which is running with Service provider. Gateways will redirect the request to appropriate web servers for the requested page.

In the server side i.e., in the web server, a web page will be available in the appropriate directory. The functionality of the web page is to dynamically generate the WML pages required for the Mobile device since WAP enabled mobile devices can understand only WML tags. All database lookup will be done by reusable class component for the realtime data. This module involves in the initial gateway access and managing the MIME type setting on the server side.

WML Generator:

The ASP.Net technology allows users to easily create Web content that has both static and dynamic components. A web page contains two types of text: static template data, which can be expressed in any text based format, such as HTML, WML, XML, etc., and ASP.Net elements, which construct dynamic content. Static and dynamic pages for the mobile device in the project are designed with WML tags. WML is a markup language based on Extensible Markup Language (XML). XML, like HTML, is a Standardized Generalized Markup Language (SGML) variant.

Just as a Web browser can navigate from one page to another, the WAP browser can navigate from one card to another. This module involves in designing of Web pages which will listen to the WML requests generated by the mobile client and generate WML tags and responses the appropriate WML tags back to the mobile device.

Client Side Scripting using WMLS

WMLScript provides general scripting capabilities to the WAP architecture. Specifically, WMLScript can be used to complement WML, which is designed to be used to specify application content for narrowband devices like cellular phones and pagers. This content can be represented with text, images, selection lists, etc., However, all of this content is static and there is no way to extend the language without modifying WML itself. WML Script was designed to overcome these limitations and to provide programmable functionality that can be used over narrowband communication links in clients with limited capabilities.

This module also involves in writing the scripts using WML Script, a scripting language used to program the mobile device. WML Script is an extended subset of the JavaScript scripting language.

WAP Transactions Management

Micro browser (Mobile device) should request for a resource from web servers like IIS for a WML pages. Mobile device cannot contact the web server directly. Because within wireless media, communication is done using WAP protocol and mobile devices can understand only WML tags. Again in the usual wired network, communication is done using HTTP protocol which is suit in the TCP. Also web servers are specially designed for HTTP protocol and HTML. The transformation between the HTTP-HTML request/response from a web server to WAP-WML is done using WAP Gateways. This module involves in managing the connection between the mobile device and the Web server.

Server Side Implementation:

Web Forms pages are built with ASP.NET technology. ASP.NET is a unified Web platform that provides all the services necessary for you to build enterprise-class applications. ASP.NET, in turn, is built on the .NET Framework, so the entire framework is available to any ASP.NET application. Applications can be authored in any language

compatible with the common language runtime, including Microsoft Visual Basic, Visual C#, and JScript .NET.

The ASP.NET page framework is a programming framework that runs on a Web server to dynamically produce and manage Web Forms pages. In Visual Studio, Web Forms provides a forms designer, editor, controls, and debugging, which together allow you to rapidly build server-based, programmable user interfaces for browsers and Web client devices.

The ASP.NET page framework creates an abstraction of the traditional client-server Web interaction so that you can program your application using traditional methods and tools that support rapid application development (RAD) and object-oriented programming (OOP).

Within Web Forms pages users can work with HTML elements using properties, methods, and events. The ASP.NET page framework removes the implementation details of the separation of client and server inherent in Web-based applications by presenting a unified model for responding to client events in code that runs at the server.

Class Design

If you are familiar with object-oriented programming, you know that a class defines the operations an object can perform (methods, events, or properties) and defines a value that holds the state of the object (fields). Classes that are not abstract are referred to as concrete classes. A class can implement any number of interfaces, but it can inherit from only one base class. All classes must have at least one constructor, which initializes new instances of the class. Each language that supports the runtime provides a way to indicate that a class or class member has specific characteristics. When you use the syntax required by your language, the language ensures that the characteristics of the class and its members are stored (as metadata) along with the implementation of the class.

Database Connectivity:

This module involves in designing the database model for a real time system and establishing the database connection between the database and the software using

ADO.Net. ADO.Net is a suite of data access technologies included in the .NET Framework class libraries that provide access to relational data and XML. ADO.NET consists of classes that make up the DataSet (such as tables, rows, columns relations, and so on), .NET Framework data providers, and custom type definitions (such as SqlTypes for SQL Server).

ADO.NET provides consistent access to data sources such as Microsoft SQL Server, as well as data sources exposed through OLE DB and XML. Data-sharing consumer applications can use ADO.NET to connect to these data sources and retrieve, manipulate, and update data. ADO.NET cleanly factors data access from data manipulation into discrete components that can be used separately or in tandem. ADO.NET includes .NET Framework data providers for connecting to a database, executing commands, and retrieving results. Those results are either processed directly, or placed in an ADO.NET DataSet object in order to be exposed to the user in an ad-hoc manner, combined with data from multiple sources, or remoted between tiers.

CHAPTER 3

SYSTEM CONFIGURATION

3.1 SYSTEM REQUIREMENTS

3.1.1 HARDWARE REQUIREMENTS

System Type	: IBM Compatible PC with 2GHZ
RAM	: 512 MB
Cache	: 512 KB
Storage	: 40 GB
Display	: 17" SVGA (LCD)
User Interface	: Compatible Keyboard and mouse

3.1.2 SOFTWARE REQUIREMENTS

Operating System:	Windows xp/2000
User Interface	: ASP.NET, C#, UP Simulator
Scripting	: WML Script
Database Layer	: MS SQL Server
Web Server	: IIS (Internet Information Services) 5.1
Browser	: IE 5.0 or Higher for windows



3.2 SOFTWARE DESCRIPTION

3.2.1 ASP.NET

ASP.NET is not just a simple upgrade or the latest version of ASP. ASP.NET combines unprecedented developer productivity with performance, reliability, and deployment. ASP.NET redesigns the whole process. It's still easy to grasp for new comers but it provides many new ways of managing projects. Below are the features of ASP.NET.

FLEXIBLE LANGUAGE OPTIONS

ASP.NET lets you leverage your current programming language skills. Unlike classic ASP, which supports only interpreted VBScript and JScript, ASP.NET now supports more than 25 .NET languages (built-in support for VB.NET, C#, and JScript.NET), giving you unprecedented flexibility in your choice of language.

GREAT TOOL SUPPORT

You can harness the full power of ASP.NET using any text editor, even Notepad. But Visual Studio .NET adds the productivity of Visual Basic-style development to the Web. Now you can visually design ASP.NET Web Forms using familiar drag-drop-double click techniques, and enjoy full-fledged code support including statement completion and color-coding. VS.NET also provides integrated support for debugging and deploying ASP.NET Web applications. The Enterprise versions of Visual Studio .NET deliver life-cycle features to help organizations plan, analyze, design, build, test, and coordinate teams that develop ASP.NET Web applications. These include UML class modeling, database modeling (conceptual, logical, and physical models), testing tools (functional, performance and scalability), and enterprise frameworks and templates, all available within the integrated Visual Studio .NET environment.

RICH CLASS FRAMEWORK

Application features that used to be hard to implement, or required a 3rd-party component, can now be added in just a few lines of code using the .NET Framework. The .NET Framework offers over 4500 classes that encapsulate rich functionality like XML, data access, file upload, regular expressions, image generation, performance monitoring and logging, transactions, message queuing, SMTP mail, and much more. With Improved Performance and Scalability ASP.NET lets you use serve more users with the same hardware.

MEMORY LEAK, DEADLOCK AND CRASH PROTECTION

ASP.NET automatically detects and recovers from errors like deadlocks and memory leaks to ensure your application is always available to your users. For example, say that your application has a small memory leak, and that after a week the leak has tied up a significant percentage of your server's virtual memory. ASP.NET will detect this condition, automatically start up another copy of the ASP.NET worker process, and direct all new requests to the new process. Once the old process has finished processing its pending requests, it is gracefully disposed and the leaked memory is released. Automatically, without administrator intervention or any interruption of service, ASP.NET has recovered from the error.

EASY DEPLOYMENT

ASP.NET takes the pain out of deploying server applications. ASP.NET dramatically simplifies installation of your application. With ASP.NET, you can deploy an entire application as easily as an HTML page, just copy it to the server. No need to run regsvr32 to register any components, and configuration settings are stored in an XML file within the application.

WML/WAP

Short for the Wireless Application Protocol, a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smart phones and communicators. WAP that use displays and access the Internet which is called micro browsers with small file sizes that can accommodate the low memory constraints of handheld devices and the low-bandwidth constraints of a wireless-handheld network.

Although WAP supports HTML and XML, the WML language (an XML application) is specifically devised for small screens and one-hand navigation without a keyboard. WML is scalable from two-line text displays up through graphic screens found on items such as smart phones and communicators. WAP also supports WMLScript. It is similar to JavaScript, but makes minimal demands on memory and CPU power because it does not contain many of the unnecessary functions found in other scripting languages.

Because WAP is fairly new, it is not a formal standard yet. It is still an initiative that was started by Unwired Planet, Motorola, Nokia, and Ericsson.

3.2.2 SQL SERVER 2000

Microsoft SQL Server 2000 is a relational database management system (RDBMS). A relational database provides a means of organizing data by storing it in database tables. Related data can be grouped into tables, and relationships can be defined between tables as well thus the name, relational database. Users access the data on the server through an application. SQL Server came into existence in 1989 and has changed significantly since then. Great improvements have been made to the product's scalability, integrity, ease of administration, performance, and features.

SQL SERVER SYSTEMS

A SQL Server system can be implemented as a client/server system or as a stand-alone desktop system. The type of system you design will depend on the number of user that will be accessing the database simultaneously and on the kind of work they will be doing.

CLIENT/SERVER SYSTEM

The client/server system can have either a two-tier setup or a three-tier setup. Regardless of the setup, the SQL server software and databases reside on a central computer called the database server. Users have separate computers called clients. Users access the database server through applications on their client computer or through applications running on a separate computer known as the application server.

CHAPTER 4

4. SYSTEM DESIGN

4.1 DFD DIAGRAMS

4.1.1 LEVEL 0 DFD

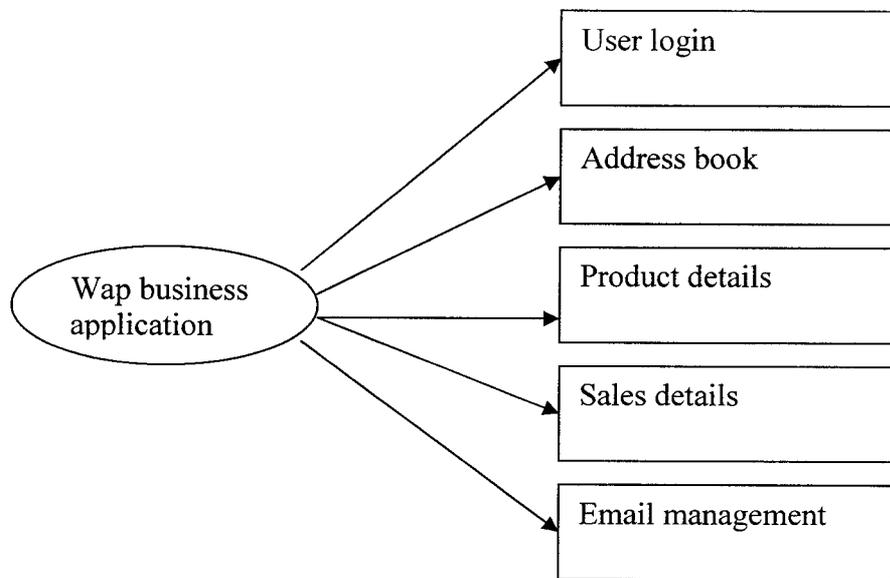


Fig 4-1 level 0 DFD

4.1.2 LEVEL 1 DFD

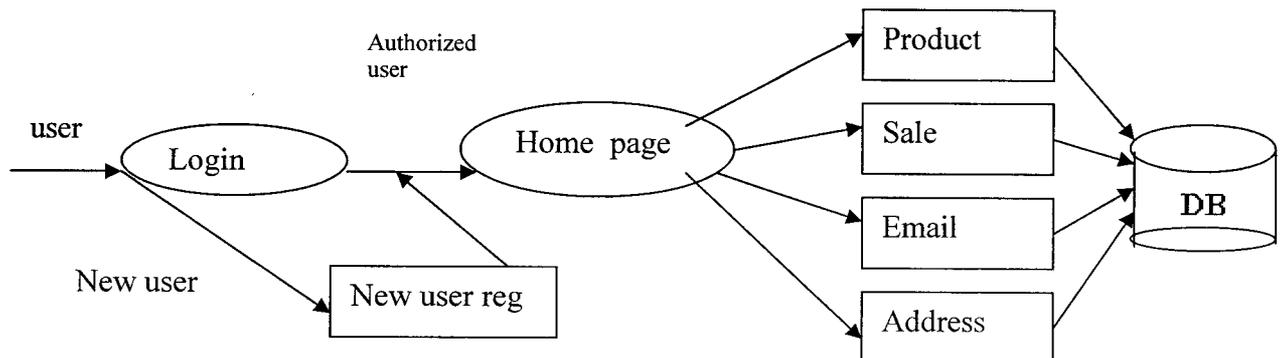


Fig 4-2 level 1 DFD

4.1.3 LEVEL 2 DFD

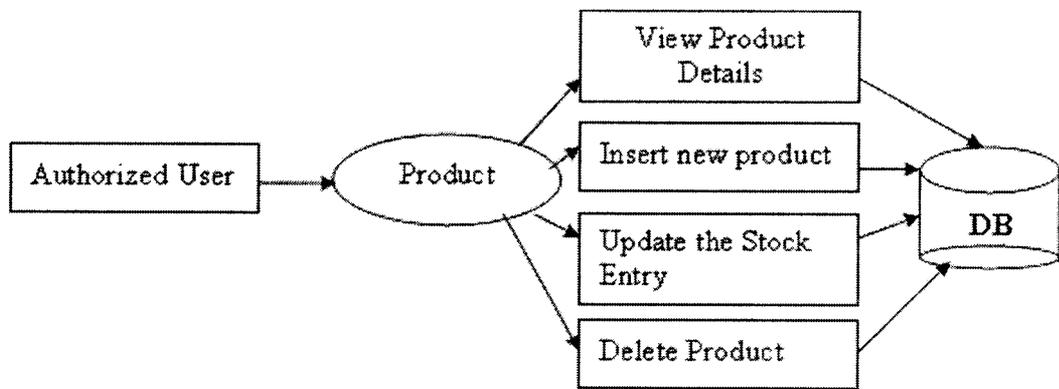


Fig 4-3 level 3 DFD

4.1.4 LEVEL 3 DFD

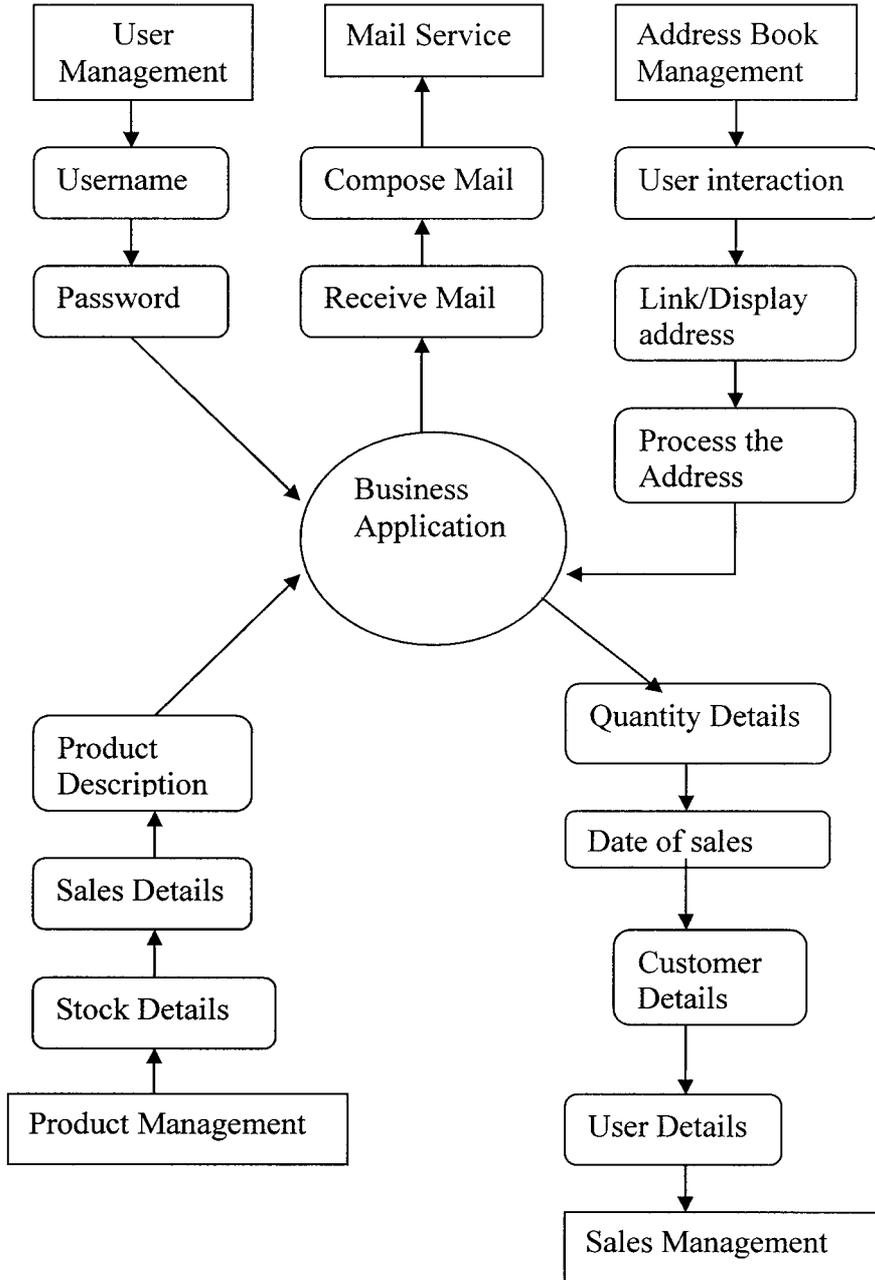


Fig 4-4 level 3 DFD

4.2 ER DIAGRAM

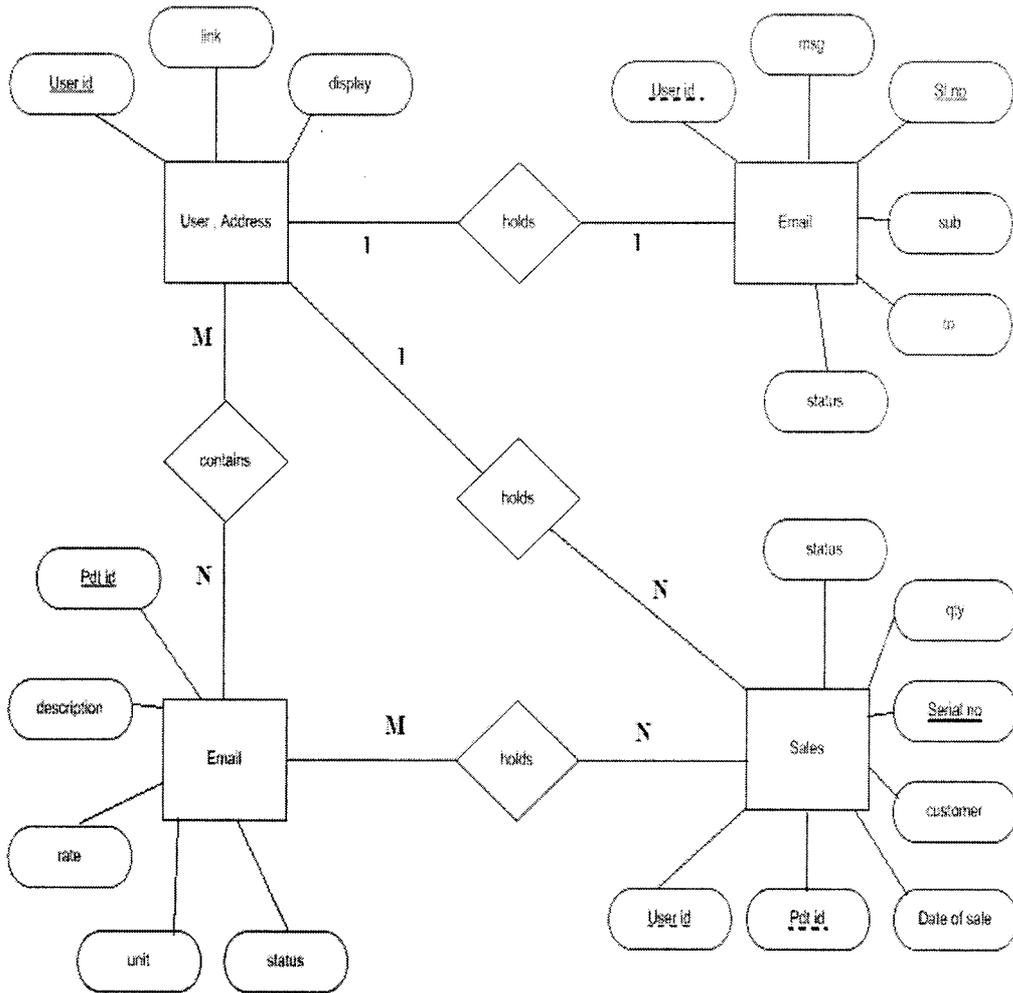


Fig 4-5 ER Diagram

4.3 PROCESS FLOW DIAGRAM

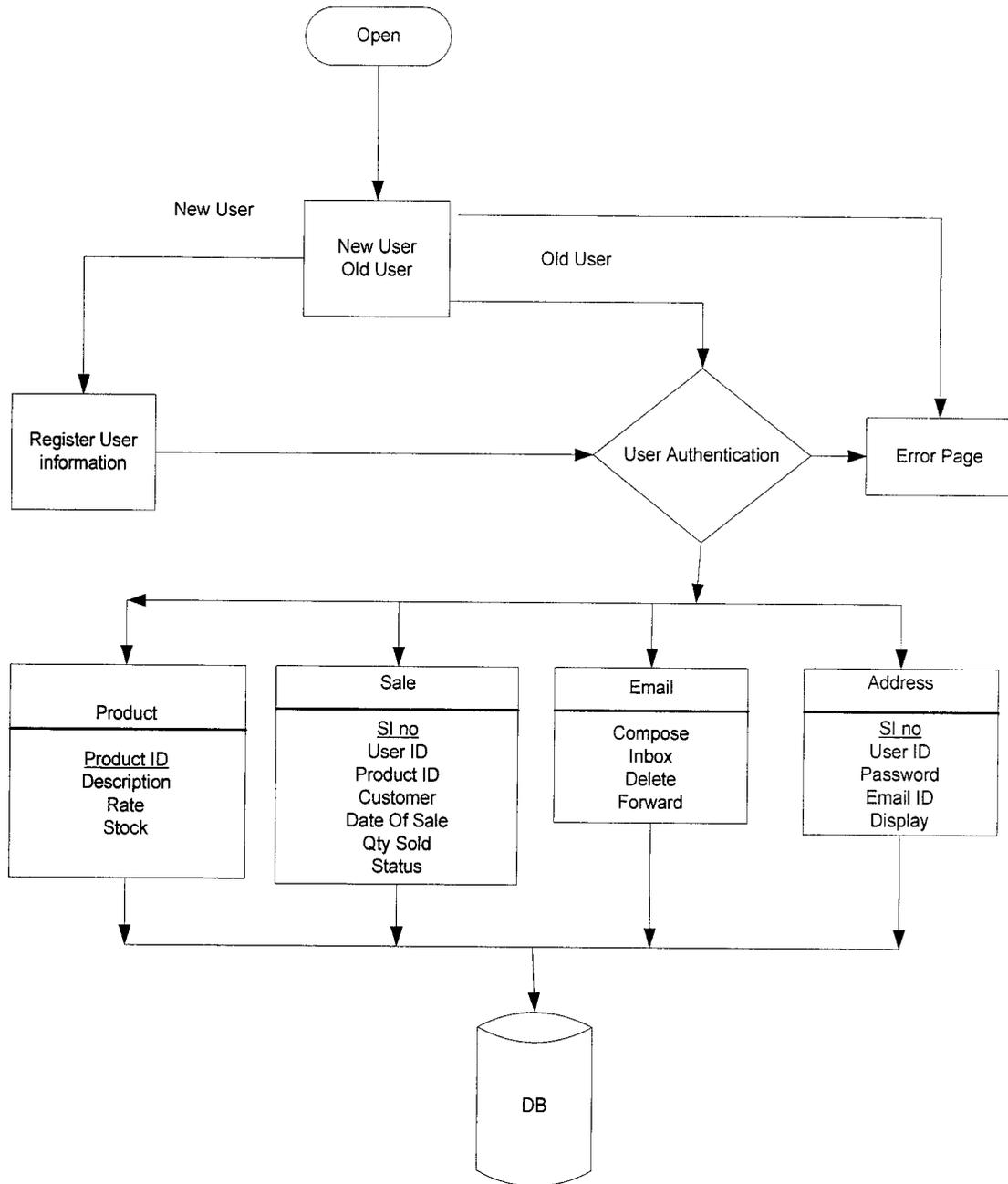


Fig 4-6 Process flow diagram

4.4 DATABASE DESIGN

The database is designed with the Java DataBase Connectivity(JDBC) makes connection between the client applications in an n-tier application. To communicate the client with the EJB, to make the database connection ,to enable improved scalability and performance. This database design should intimate the whole type of data that has to be used in the modules. It should help the user in storing any number of data in them. The tables should be valid with effective key constraints and normalization. The validity of the user's information is done by the database created and the source from which it is retrieved.

4.4.1 WAP_LOGIN

FIELD	DATA TYPE	WIDTH	CONSTRAINT
USER_ID	VARCHAR	20	PRIMARY KEY
PWD	CHAR	20	NULL

4.4.2 WAP_ADBOOK

FIELD	DATA TYPE	WIDTH	CONSTRAINT
SLNO	BIG INT	10	PRIMARY KEY
USER_ID	VARCHAR	20	FOREIGN KEY
LINK	CHAR	50	NULL
DISPLAY	CHAR	20	NULL

4.4.3 WAP_PRODUCT

FIELD	DATA TYPE	WIDTH	CONSTRAINT
PRODUCT_ID	VARCHAR	10	PRIMARY KEY
DESCRIPTION	CHAR	50	NULL
UNIT	CHAR	10	NULL
RATE	BIGINT	20	NULL
STOCK	BIGINT	10	NULL

4.4.4 WAP_SALE

FIELD	DATA TYPE	WIDTH	CONSTRAINT
SLNO	BIGINT	10	PRIMARY KEY
PRODUCT_ID	VARCHAR	10	FOREGIN KEY
USER_ID	VARCHAR	20	FOREIGN KEY
CUSTOMER	CHAR	20	NULL
DATEOFSALE	DATE/TIME	-	NULL
QTY	BIGINT	10	NULL
STATUS	CHAR	10	NO CONSTRAINT

CHAPTER 5

5. SYSTEM TESTING

5.1 Introduction

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design, and code generation. Testing is a process of executing a program with the intent of finding an error. Consequently a good test case is one that has a high probability of finding an as yet undiscovered error.

5.2 Types of Testing

- 1) Unit Testing
- 2) Functional Testing
- 3) Integration Testing
- 4) System Testing

1) Unit Testing

Unit testing focuses verification effort on the smallest unit of Software design that is the module. Unit testing exercises specific paths in a module's control structure to ensure complete coverage and maximum error detection. This test focuses on each module individually, ensuring that it functions properly as a unit. Hence, the naming is Unit Testing.

2) Validation Testing

Functional testing the cases involves excising the code with nominal input values for which the expected values are known i.e. the functions of specified module are verified with these by using the results of which are known and the results are obtained and compared with the results expected.

S.No	Test Case	Test Procedure	Expected Result	Actual Result	Status
1	To check the empty username field	Empty Textbox for username	Username should not be empty.	Username should not be empty.	Pass
2	Login	Correct Username and password	Welcome Username in home page.	Welcome Username in home page.	Pass
3	password	Password :12345 Conform Password:1234	Error message displaying password and conform password must be same.	Error message displaying password and conform password must be same.	Pass

3) Integration Testing

Integration testing is about testing the interfaces between components. An integration testing can only begin when all the components to be integrated have been unit tested. Integration testing involves assembling the software components gradually according to a predetermined plan, organized into steps and described in the Software Integration Test Procedure.

The aim is to use previously prepared tests to check the correct operation of the components integrated during the step, in relation to all the components integrated during the previous steps. Follows on from the Unit Testing phase, during which the components are individually tested.

4) System Testing

In this testing the entire system as one piece for its performance and checked and it's efficiency and performance on the whole comprising the entire project. To sum I have completely checked my project scheme by the way of all kinds of testing, which I have indicated above.

Test Case

Example – Product Module

S.No	Test Case	Test Procedure	Actual result	Expected result	Status
1	Fields-Invalid Input	Give some Invalid integer input as '\$^a','as3','@#12','-345'	It should give customized error message such as "You have entered some wrong data "	It should give customized error message such as "You have entered some wrong data "	Pass
2	Field-Valid Input	Give Some Valid Integer Input as '123'	Should accept the given input	Should accept the given input	Pass
3	Field - Invalid Input	Give some Invalid Character as 'aq1','as@','@%' and null values.	It should give customized error message such as "You have entered some wrong data "	It should give customized error message such as "You have entered some wrong data "	Pass
4	Field-Valid Input	Give Some Valid Character Input as 'asd'	Should accept the given input	Should accept the given input	Pass
5	Field-NULL Input	Give null values as input	It should give customized error message such as "You have entered some wrong data "	It should give customized error message such as "You have entered some wrong data "	Pass
6	Link-Click – Invalid Input	Click the appropriate link when the WML page has invalid inputs	It should give customized error message such as " You have entered some wrong data "	It should give customized error message such as " You have entered some wrong data "	Pass
7	Link-Click – Valid Input	Click the appropriate link when the WML page has valid inputs	Records are added to table or file	Records are added to table or file	Pass

CHAPTER 6

6. CONCLUSION

This Project is done with the mobile for product transaction activities that deal with employee, to eliminate the manual work errors. It's run with a good performance and reliable way. It is designed in such way that the maintenance of the project is easy, satisfies the most of the requirements. All Transaction is processed immediately.

It reduces the processing time for every transaction and the processing will take place immediately. This project also serves as user friendly to user. The user can easily access without any problem. The project has been implemented to retrieve time-bounded, business- related data through a mobile phone.

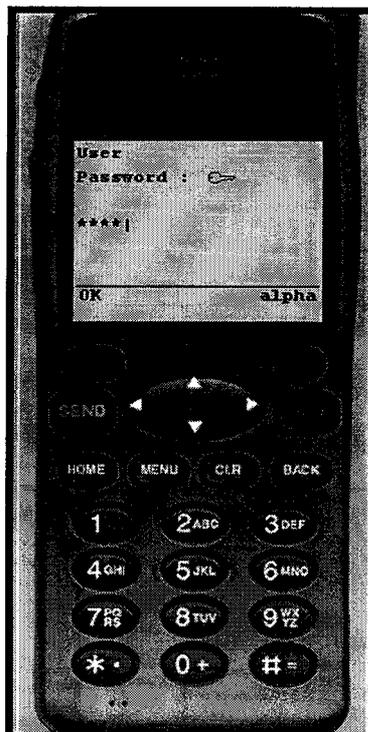
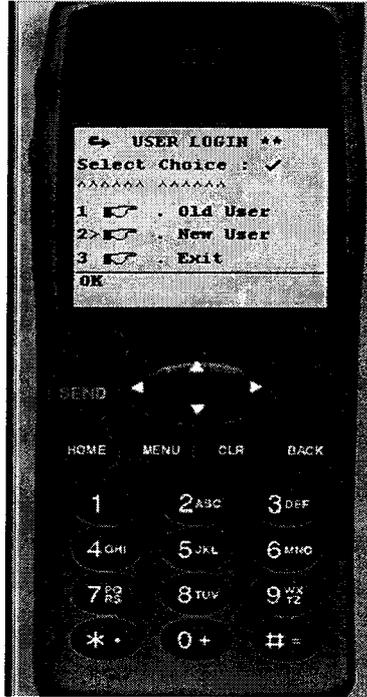
CHAPTER 7

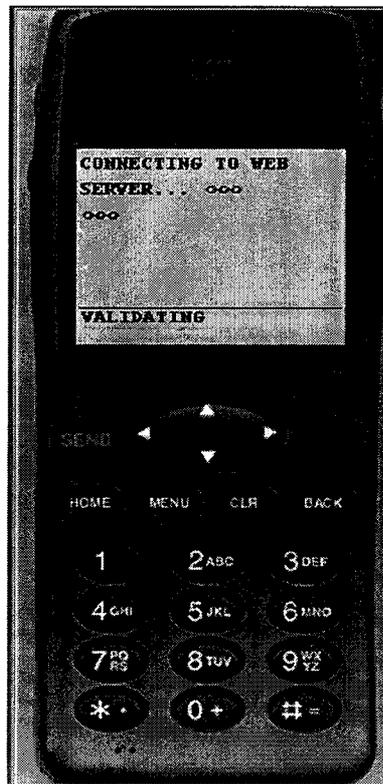
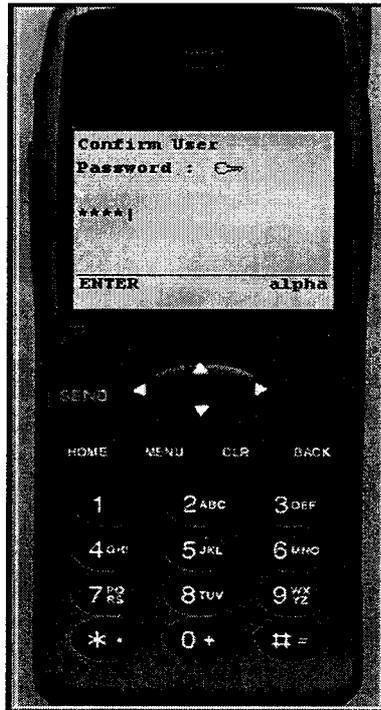
7. FUTURE ENHANCEMENT

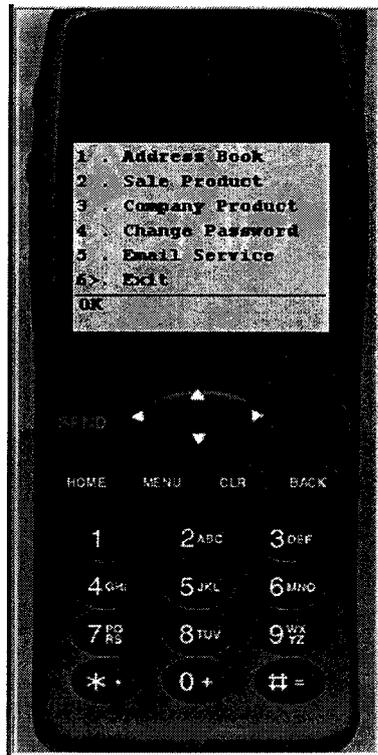
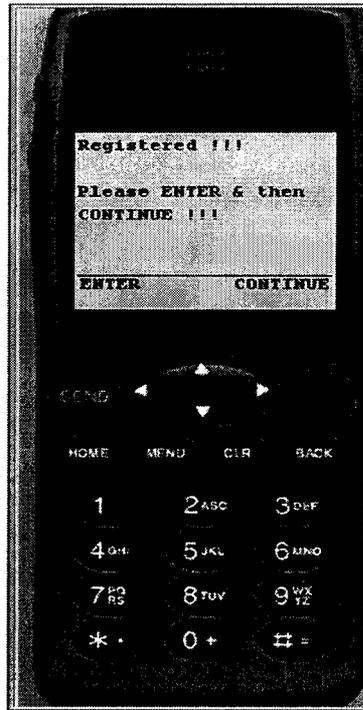
Further enhancements can be conveniently induced into the current project such as, Implementing the present code in a mobile device by buying the appropriate services from the mobile phone service providers. The project can be used to access other dynamic information related to areas of sports, city event updates, train and flight timings, matrimonial, weather reports etc, with ease. We can also incorporate MMS (Multimedia Messaging Services).All web-enabled sites can be accessed through the device. Traffic monitoring can be done through the mobile phone.

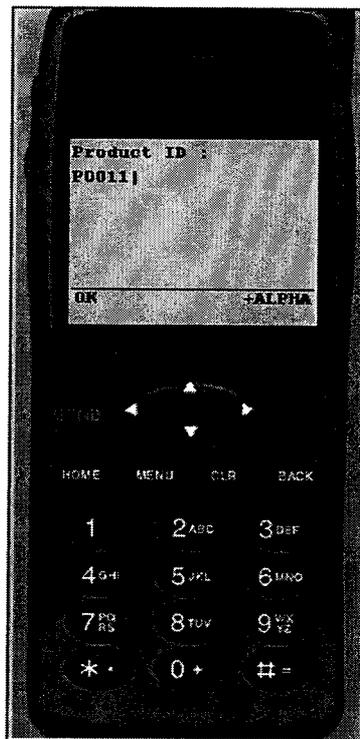
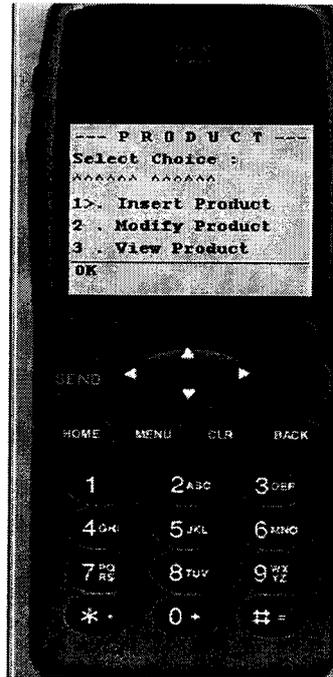
APPENDIX 1

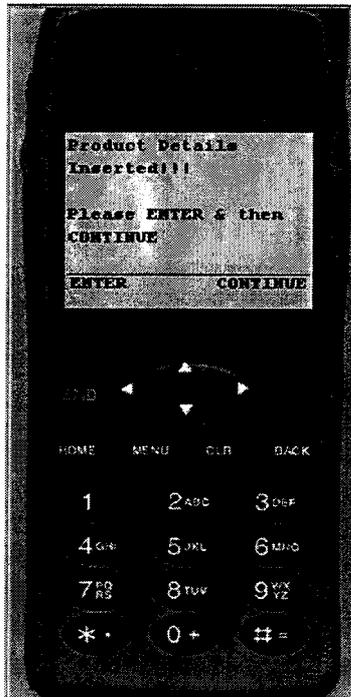
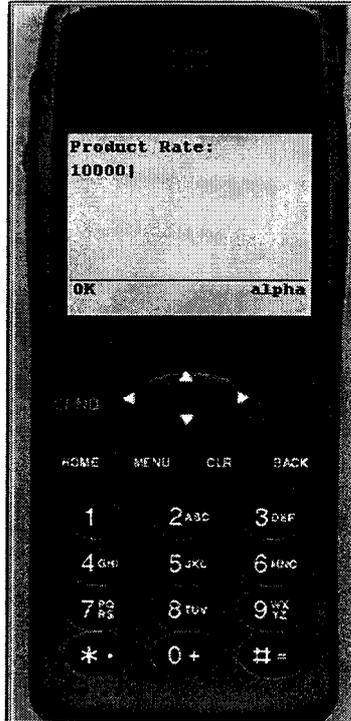
SCREEN LAYOUTS

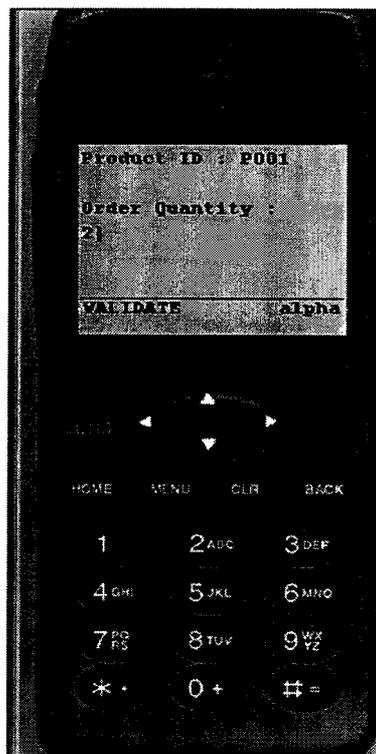
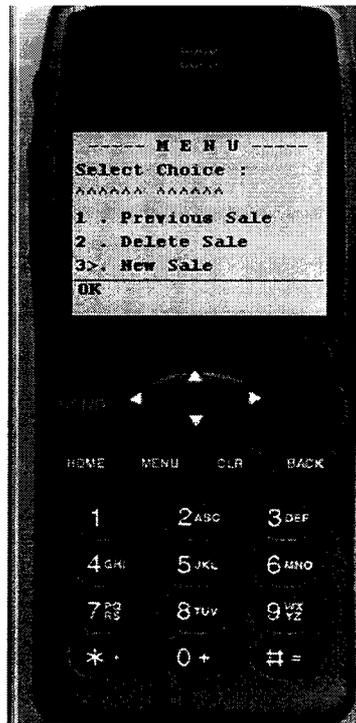












APPENDIX 2

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