

Telecom Billing Management System Using Android

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Abstract - Telecom system automates the management of Telecom services, which involves customer applications, entries and enquiries queries (complaints). The customers are involved in the process of the customer registration and entries based on the admin defining rules. Telecom System also maintains the database of the customer's information's. The proposed work automate the Telecom System and its process all activities through on line. The customers see their connection status at any branch and also know their details at any branch. Here dynamically generated the reports like previous details of the customer.

Key Words: Android Technology, Android Mobile App, Eclipse Luna, SDLC Methodology.

I. INTRODUCTION

Since the beginning of recorded history, people have been fascinated with the idea of non-human agencies. Popular notions about androids, robots, cyborgs, and science fiction creatures permeate our culture, forming the unconscious backdrop against which software agents are perceived. Software agent technology has been a research area in Computer Science that deals with substituting human user(s) by a group of computer programs that carry out the routine tasks autonomously with or without minimal human intervention. Generally, agent is software that represents users in the same way the users would represent themselves.

Billing system is very complex starting from network elements that generate usage to the billing system to usage collection, mediation, rating, and invoicing. The system user navigates through the company site and views company services, and he decides to order one of the available services. If he has no account, he signs up for a new account, else he signs in. Then the user asks to conduct an order with the selected service. The service may be prepaid where he has to pay to have credits to use the service, or it may be postpaid, where he has to pay if the service has installation or setup fees, and later on he will pay for his usage of each billing cycle.

The telecom industry has witnessed extensive growth since its inception. No doubt, the number of customers using these services continues to increase every moment. In this situation, all that a service provider looks for is an efficient billing and OSS system. The billing system is the basic link that connects a customer to his service provider. Irrespective of how happy the customer is with the services of a company, billing services are evidence for the trustworthiness of the company. A company can end up losing a customer even because of a small mistake.

Telecommunication companies need an effective and accurate billing system to be able to assure their revenue. The billing process involves receiving billing records from various networks, determining the billing rates associated with the billing records, calculating the cost for each billing record, aggregating these records periodically to generate invoices, sending invoices to the customer, and collecting payments received from the customer.

II. Existing System

1. Inability of modification of data: The managing of huge data effectively and efficiently for efficient results, storing the details of the consumers etc. in such a way that the database can be modified as not possible in the current system.
2. Not user friendly: The existing system is not user friendly because the retrieval and storing of data is slow and data is not maintained efficiently.
3. Difficulty in reports generating: Either no reports generating in a current system or they are generated with great difficulty reports take time to generate in the current system.
4. Manual operator control: Manual operator control is there and leads to a lot of chaos and errors.

5. Lot of research workwork: Existing system requires lot of research work work and even a small transaction require many research works fill. Moreover any unnatural cause (such as fire in the organization)can destroy all data of the organization. Loss of even a single research work led to difficult situation because all the research works are interrelated.

6. Inability of sharing the data: Data cannot be shared in the existing system. This means that no two persons can use the same data in existing system. Also the two departments in an organization cannot interact with each other without the actual movement of data.

7. No support in decision-making: Existing system does not support managerial decision-making.

8. No support in strategic competitive advantage: Existing system do not support strategic competitive advantages

9. Manual processing, Time consuming and slow, error prone, duplication.

III. Proposed System

1. Easiness in modification of data: The proposed system provides managing of huge data effectively and efficiently for efficient results, storing the details of the customers, employees etc. in such a way that the database can be modified.

2. User friendly: The proposed system is user friendly because there trivial and storing of data is fast and data is maintained efficiently .Moreover

The graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.

3. Reports are easily generated: Reports can be easily generated in a proposed system. So any type of reports can be generated in a proposed system, which helps the managers in a decisions-making activity.

Sl. No	Test case title	Expected output	Actual output	Results
1	Customer My plan	Plan choose	Customer plan choose	Pass
2	Customer My plan	Customer choose	Failed to choose plan	Fail
3	My bill	Generate bill	Generate bill	Pass
4	My bill	499	2500	Fail
5	My offer	Generate list offers	Select the offers	Pass
6	My offer	Does not edit offers	Fail to edit the offers	Fail
7	List offers	Generate list offer	Select the offers	Pass
8	List offers	Edit the offers to high value	Fail to edit offers	Fail
9	Add offers	Admin Adding the offers	Adding offers	Pass

4. Sharing the data is possible: Data can be shared in proposed system. This means that two or more persons can use the same data in existing system provided that they have right to access that data. Also the two or more departments in an organization can easily interact with each other without the actual movement of data.

5. No or very few research workwork: The proposed system either does not require research work work or very few research work works is required. All the data is feted into the computer immediately and various bills and reports can be generated through computers. Since all the data is kept in a database no data of the organization can be destroyed. Moreover work becomes very easy because there is no need to keep data on research works.

6. Support strategic competitive advantage: Proposed system supports strategic competitive advantages. Since the proposed systems provide easiness in reports generating it will provide strategic advantages among competitors. Manual processing Time Consuming and slow.

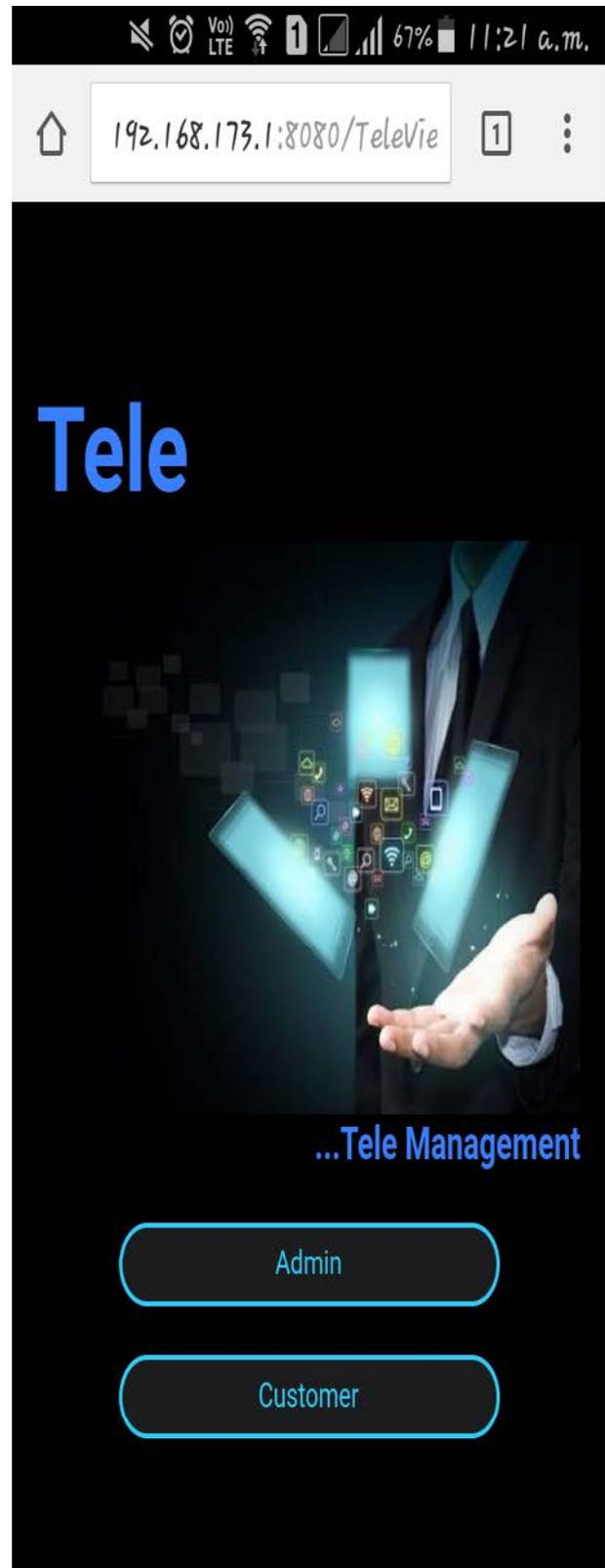
IV. SYSTEM TESTING

1 Black-box testing

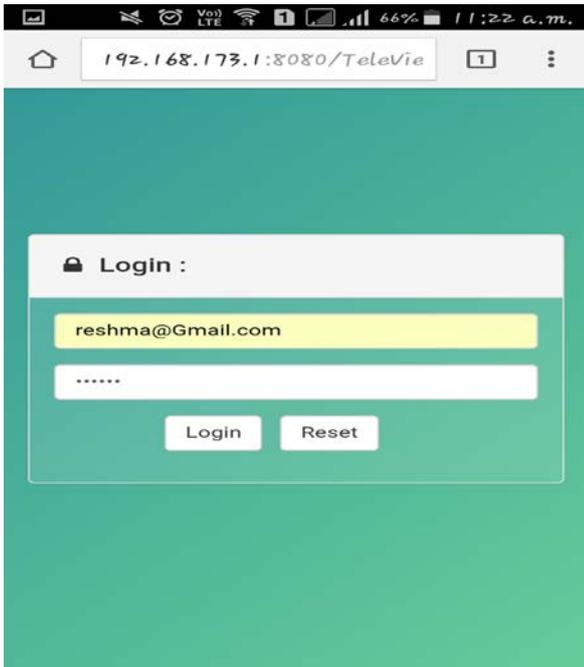
Black box testing is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied to virtually every level of software testing: unit, integration, system and acceptance. It typically comprises most if not all higher level testing, but can also dominate unit testing as well.

V. SNAP SHOTS

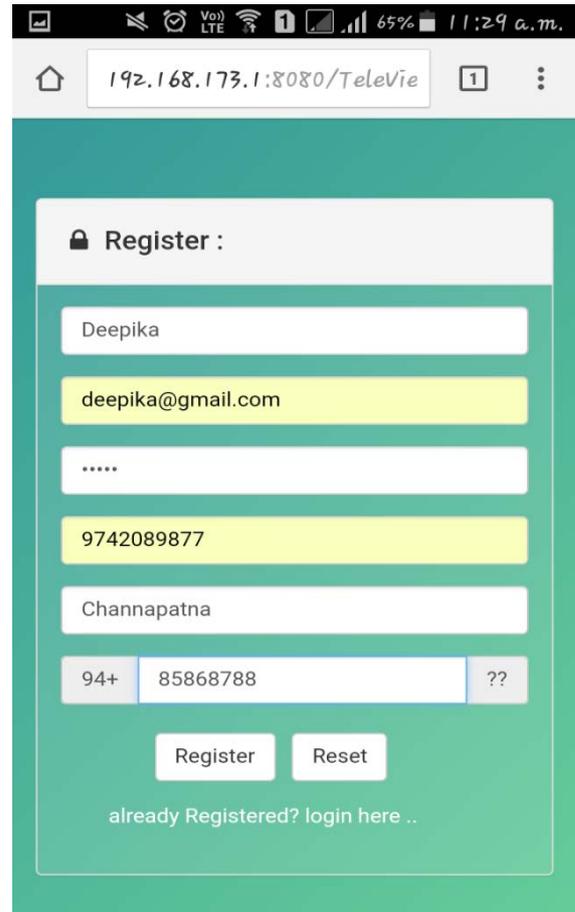
1. MAIN PAGE



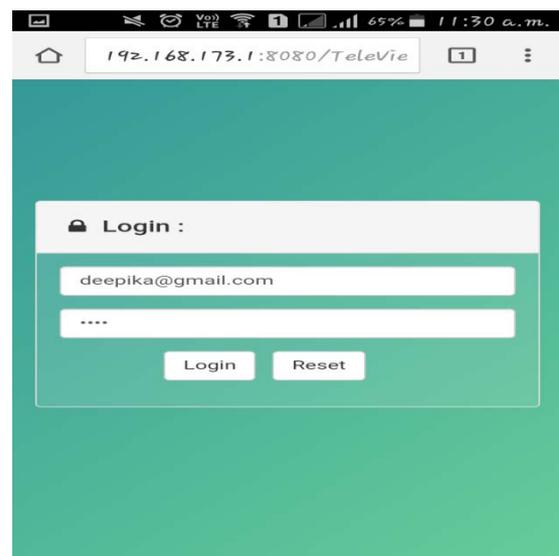
2. ADMIN LOGIN PAGE



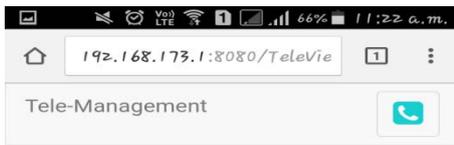
3. REGISTER PAGE



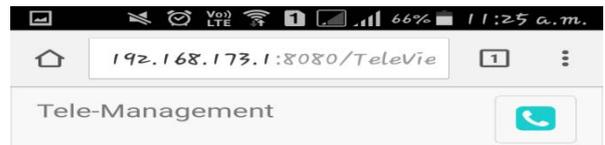
4. CUSTOMER LOGIN PAGE



5. LIST.



7. UPDATE OFFER PAGE



Update Offer:	
Perticulars	Rate
Name	Diwali
Price	20
Call/min	30
Data/MB	200
Validity	30



6. OFFER LIST PAGE



List of Offers				
Id	Name	Price	call/min	Data/MB
1	offer1	99	0.6	0.5
2	offer2	199	0.3	0.25
3	offer3	299	0.3	0.25
4	offer4	399	0.2	0.25
5	offer5	499	0.2	0
6	offer6	999	0	0.3
7	Divali	250	0.2	1
8	Diwali	150	0.4	0.2
9	double damakha	200	0.5	0.5
10	full talkTime	100	0.3	0.4

8. MY OFFER PAGE



My Offer	
Perticulars	Rate
Id	8
Name	Diwali
Price	90 rs
Call/min	0.1 ps
Data/MB	0.2 ps
Validity	20 days



9. REGISTER PAGE

Register :

name

e-mail

Password

phone

address

94+ fancy no. ??

Register Reset

already Registered? login here ..

11. PRINT BILL PAGE

PDF Save as PDF

Copies: 1 Paper size: ISO A4

PDF

Bill

Particulars	Usage/Rate	Cost
Id	7	
Name	Diwali	
Price	250	
Call/rate	420/0.1	8400
Data/rate	1350/0.15	93500
Validity	20	
Upto date	03-11-2016	
Total		102900

Print

Full Bill of Recharge 90 per A4 90 300 @ 100 Recharge 110 per 200 100 @ 133 Recharge 133 per 100

10. BILL PAGE

TeleZone

Bill

Particulars	Usage/Rate	Cost
Id	8	
Name	Diwali	
Price	90	
Call/rate	233/0.1	23.3
Data/rate	3850/0.2	770
Validity	20	
Upto date	03-11-2016	
Total	:	793.3

Print

12. MY PROFILE

TeleZone

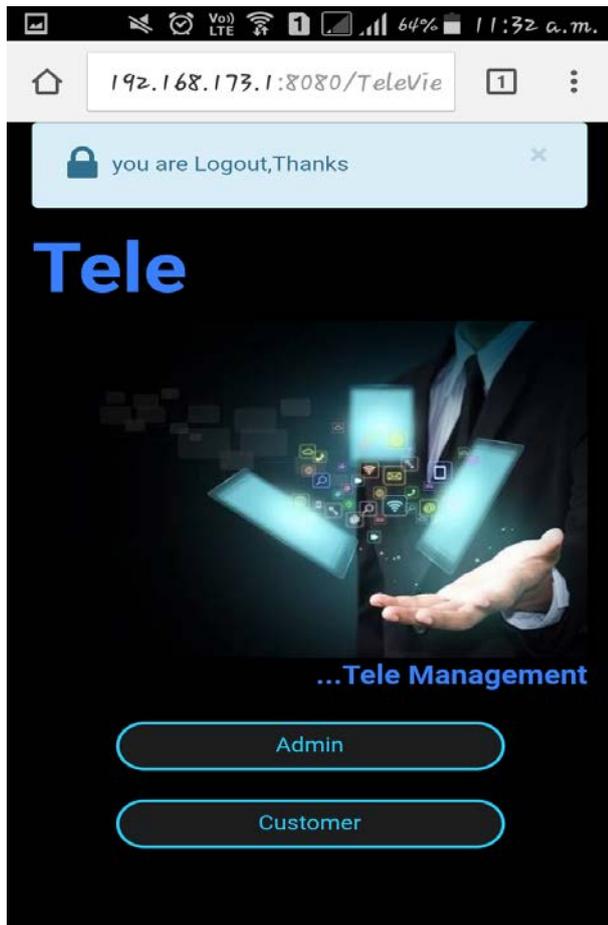
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BANGALORE

13. LOGOUT



VI. CONCLUSION

The project of System Design Lab about “Telecom Billing System”. Development of this System takes a lot of efforts from us. The system gave a lot of satisfaction to all of us. Though every task is never said to be perfect in this development field even more improvement may be possible in this system. We learned so many things and gained a lot of knowledge about development field. A Telecom billing management system provides supports for the operation, administration and maintenance. A

list of Telecom billing management system provide a check list for the standardization process, for the functions, objects and messages, ensuring that all the functionality necessary to support the perceived usage of the management applications are supplied. The standardization allows continuing automation of these services so as to improve the efficiency of the MS tools for human operators. The main focus of this research work is design and development of a framework to determine how to predict the testability factors. On the basis of these results testability has been evaluated and finally declared which case has the more testability index. A framework has been designed which is useful in describing the existing metrics.

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