



Smart Meter Billing

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Abstract — Smart meters are a new kind of energy meter. This "next generation" of meters is a replacement for your existing meters and sends electronic meter readings to your energy Account Department. Smart meters come with in-home displays, which give you feedback on your energy usage and what it is costing. There are gas smart meters and electricity smart meters. A smart meter works by communicating directly with your energy supplier, so the company will always have an accurate meter reading and there's no need to take a meter reading yourself. A smart meter itself won't save you money, but the extras your smart meter will come with can offer much insight into how to lower your bills.

Keywords- Electric Meter, Billing, Sensor, Smart Reading, Verification

I. INTRODUCTION

Smart meters are less error prone. Accurate readings are obtained by the customers and utility providers. Readings can be sent remotely over the web to the utility providers. Employees need not to be physically present at the site. Tampering of these meters can be easily detected by the authorities. Smart meters when programmed with home appliances can be used to control the electricity consumption. Traditional Meter Reading For any Utility consumption and billing is done by human operation. This Requires huge number of labor operator and long working hours to achieve complete area data reading and billing. Internet has become one of the most important parts of our lives.

It records the consumption and sends the readings to the utility office on regular basis for monitoring and billing. For a long time, traditional electromechanical meters have been used. Meter readings were noted down on the monthly basis. But now with the evolution of smart electricity meters, things are changing [1]. More accurate bills smart meter means the end of estimated bills and the end of overpaying for your energy. No one has to come to your home to read your meter; you do not have to submit meter reading yourself. Better oversight and management of your energy use with a real time data display in your home.

II. EXPERIMENTAL SPECIFICATION

Software: Eclipse & Netbean., Operating System: windows 7 and 8, Web Browser: Mozilla Firefox, Chrome. **Front-End tools:** ASP.NET with c#

Back-End tools: SQL Server Database

Hardware: Processor – Pentium 4- 1.6 GHZ, RAM- 2 GB, Hard Disk- 160 GB Free, Power Supply Block, Micro Controller(AT89581/52), GSM Modem, GSM Communication, Resistor, LCD Display, Capacitor, DBG Connector

III. AIM AND OBJECTIVES

- To facility improved and fast communication with customer
- To cross Sell Product more effectively.
- To retain existing Customer.
- Fast and efficient problem solving of Customer through complaint and Feedback Mechanism.
- Access to customer account history order information and customer information at all touch points.
- To lower Communication and Servicing Expenses.
- To maintain consistent customer base.
- To generate organized and Proficient Analysis of system Workflow.

IV. METHODOLOGY

- Decided about using ASP.NET as front end and MySQL Server Database as back end.
- Hardware connected with the system.
- System request to the hardware to show result like reading.
- Hardware response to the system.
- System generate document of the smart meter.
- System provides security for the user as to provide unique id and password to use information of the meter.

V. RESULTS

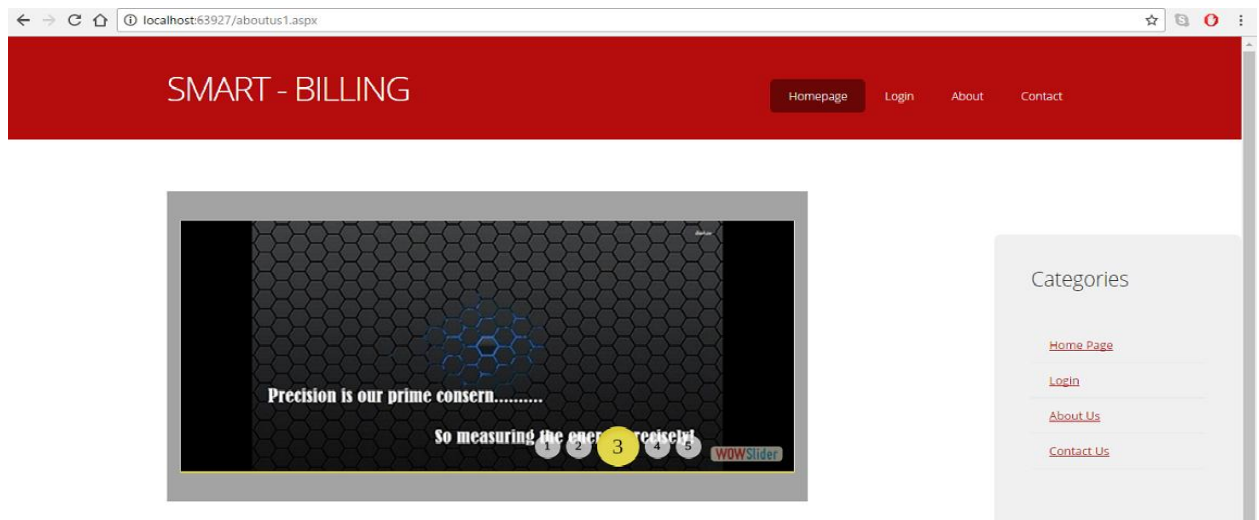


Figure 1.1 Home Page

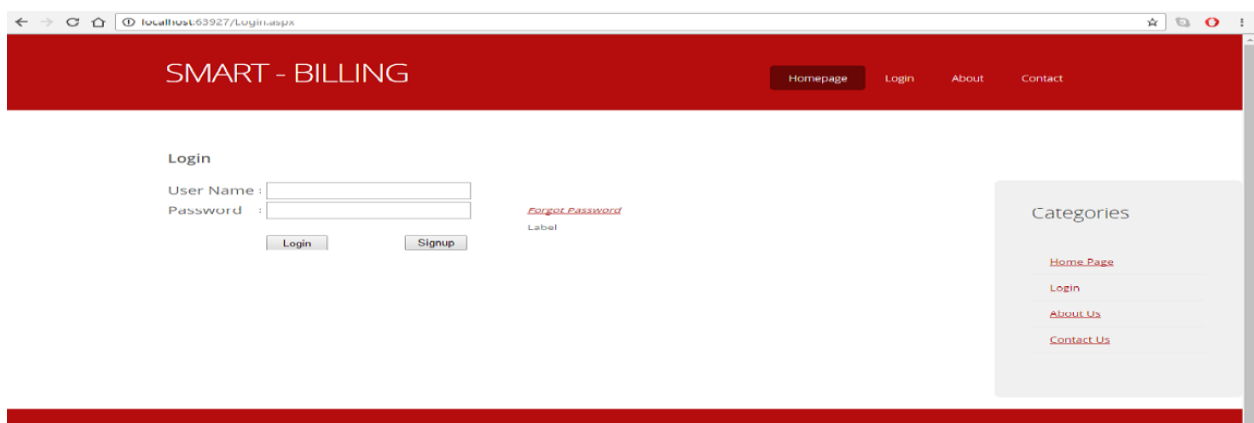


Figure 1.2 Login Page

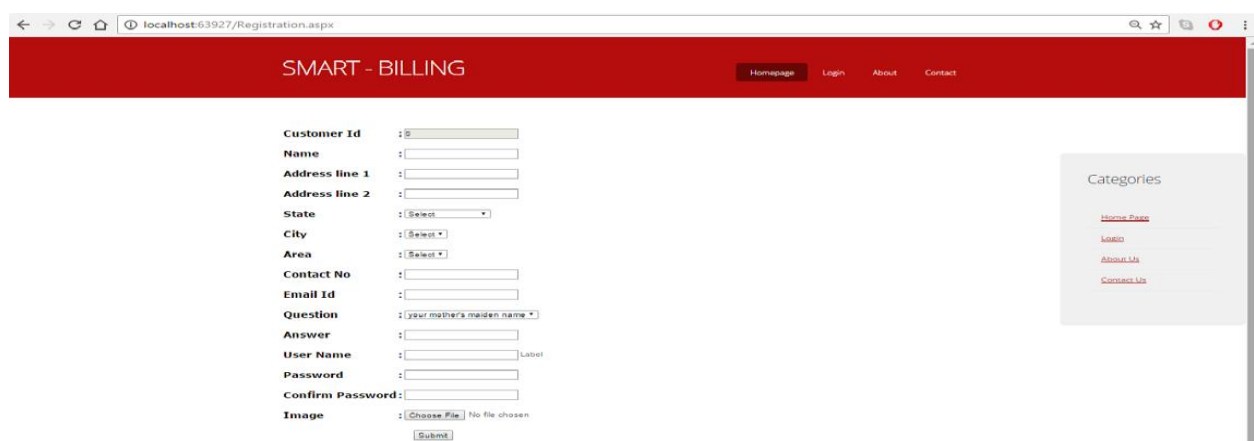


Figure 1.3 Registration Page

SMART - BILLING

Homepage Login About Contact

User Name

Email Id

Security Question

Answer

Submit

Categories

[Home Page](#)

[Login](#)

[About Us](#)

[Contact Us](#)

Figure 1.4 Forgot Password

VI. CONCLUSION AND FUTURE WORK

We have designed a web application “SMART METER BILLING” using which users can quickly search reading of meter of their own home, office, collage etc. They can find out the result about their electric meter and can payment for it. Users will be provided with different services like real time reading, real time payment, real time feedback etc. Thus we have integrated a lot of features in one web app. In future we will design our app based on “SMART METER BILLING” on android platform. In future, we will try to make such an app which can implement on every platform. In future we will try to make our IOT device in cheapest price so any one can buy it and use their huge advantages.

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