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Department of Computer Science and Engineering
B.E. CSE Program Accredited by NBA, New Delhi from 1-7-2018 to 30-6-2021

Report on Mini Project

"Electricity Billing Management System Using Cloud"

Course Code: 16CSE33

Course Name: Cloud Computing

Semester: 6 Section: B

Submitted To,

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Submitted By:

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Date of submission:

16/06/2020

Signature of Course Instructor

Electricity Billing Management System Using Cloud

Abstract

The project is a web based application which will be working on cloud where users can get instant electricity bill and pay them online via credit card. The system automates the conventional process of paying electricity bill by visiting the place where users have to stand in queue for paying bill and wait for their turn. The process is tiresome and time consuming. They even have to wait for the bill being delivered to their place which sometimes can be delivered late by the delivery boy. Hence the system is developed to automate the electricity bill calculation and payment for user convenience.

The purpose of Electricity Billing System using Cloud is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

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CERTIFICATE

This is to certify that the project work carried out by Kaushik C Rajshekar (4NM17CS083) and Leston John Alva (4NM17CS092) bonafide students of NMAM Institute of Technology, Nitte in fulfilment for the Relational Database Management System Lab in Computer Science and Engineering during the academic year 2019-2020.

Signature of the Examiners:
1.
2.

Signature of the Guide:
1.
2.

ACKNOWLEDGEMENT

The satisfactions that accompany the successful completion of any task would be incomplete without the mention of the people who made it possible. So we acknowledge all those whose guidance and encouragement served as a beacon of light and crowned our efforts with success.

We are thankful to our project guide, Dr. D. K. Sreekantha, Dept. of CSE for their valuable guidance and advice. Her willingness to motivate us contributed tremendously to our project.

We would like to place on record our deep sense of gratitude to Dr. K. R. Udaya Kumar Reddy, HOD-Dept. of Computer Science and Engineering, NMAMIT, Nitte for his generous guidance, help and useful suggestions. We also acknowledge and express our sincere thanks to our beloved Dr. Niranjan. N. Chiplunkar, Principal, NMAMIT, Nitte who is a source of inspiration to us.

We thank all the Teaching and Non-Teaching staff members of the department of CSE for providing resources for the completion of the project. A special thanks goes to our parents, friends and relatives for supporting and encouraging us in all ways thus making our project successful. Finally, we thank all those who have contributed directly or indirectly in making this project a grand success.

Kaushik C. Rajshekar
(4NM17CS083)

Leston John Alva
(4NM17CS092)

CHAPTER 1

INTRODUCTION

The “Electricity Billing System” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Advantages:

- 1. The system excludes the need of maintaining paper electricity bill as all the electricity bill records are managed electronically.
- 2. The system excludes manual bill calculation.
- 3. Users don’t have visit the office for bill payment.
- 4. There is no need of delivery boy for delivering bills to users place.
- Thus, it saves human efforts and resources.

CHAPTER 2

PROBLEM STATEMENT

Traditionally the electricity meters are installed on consumer's premises and the consumption information is collected by meter-readers on their fortnightly or monthly visits to the premises. This method of gauging electricity consumption has the following disadvantages:

1. Sometimes the meters are installed inside people's homes and, if the consumer is not at home, the meter-reader cannot record the consumption.
2. Hiring of a number of meter-readers by utilities' companies and providing means of transportation to them is an expensive burden on the companies' budgets.
3. Dissatisfaction of some customers who consider meter-readers' entrance to their homes as some sort of invasion to their privacy.

OBJECTIVES

1. The manual meter reading and bill data entry process is automated.
2. To reduce data collection costs.
3. To enable faster, more efficient reading times and billing process.
4. To improve customer service and enable conservation of resources.

CHAPTER 3

Solution Approach/ Methodology

FRONTEND TECHNOLOGY

List of technologies for frontend

1. Hyper Text MarkUp Language (HTML)
Hypertext MarkUp Language is the standard markup language for creating web pages and web applications.

2. Cascading Style Sheets (CSS)
Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML.

3. Bootstrap (front-end framework)
Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development.

BACKEND TECHNOLOGY

List of technologies for Backend

1. PHP
Hypertext Pre-processor is a server-side scripting language designed for Web development, and also used as a general-purpose programming language. It was originally created by Rasmus Lerdorf in 1994, the PHP reference implementation is now produced by The PHP Group.

Database:

MySQL:

MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language.

CLOUD (000webhost):

000webhost a free web hosting service to the cloud platform which is mainly used to manage and develop websites onto cloud. It is mainly powered Hostinger.

Chapter 6

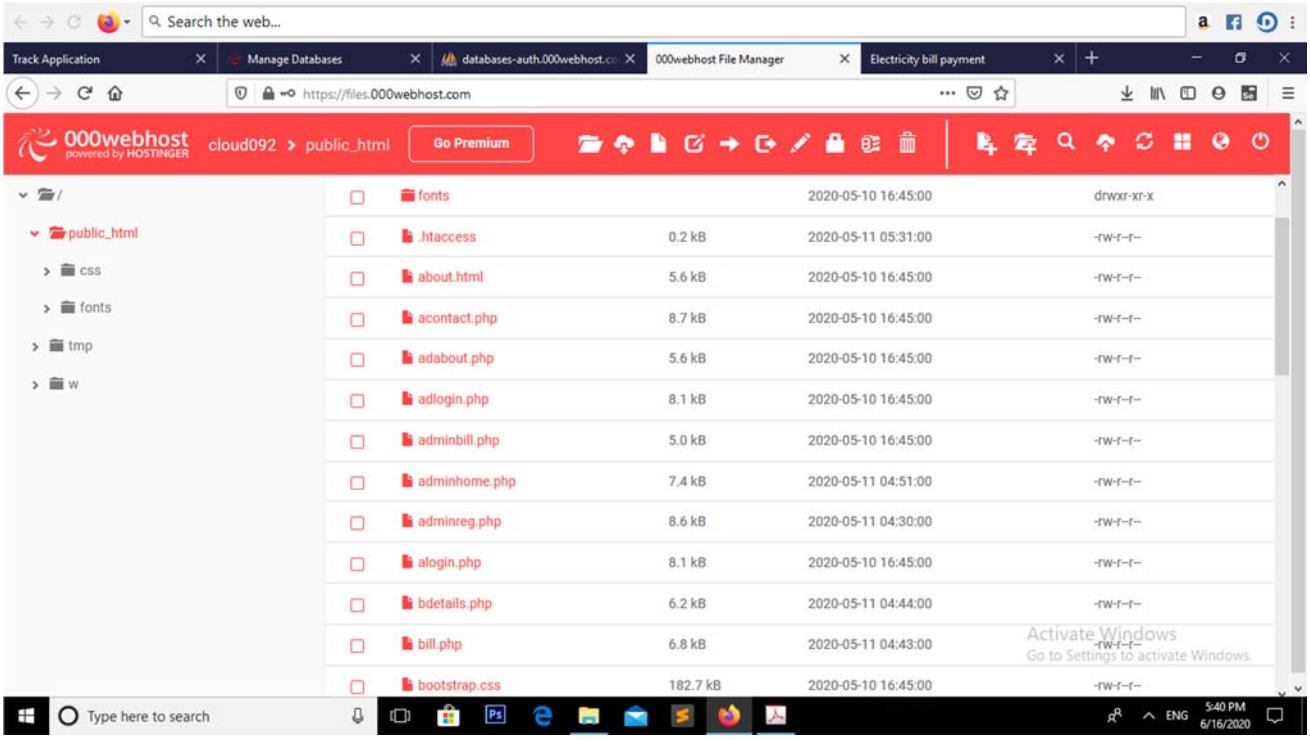
Implementation details

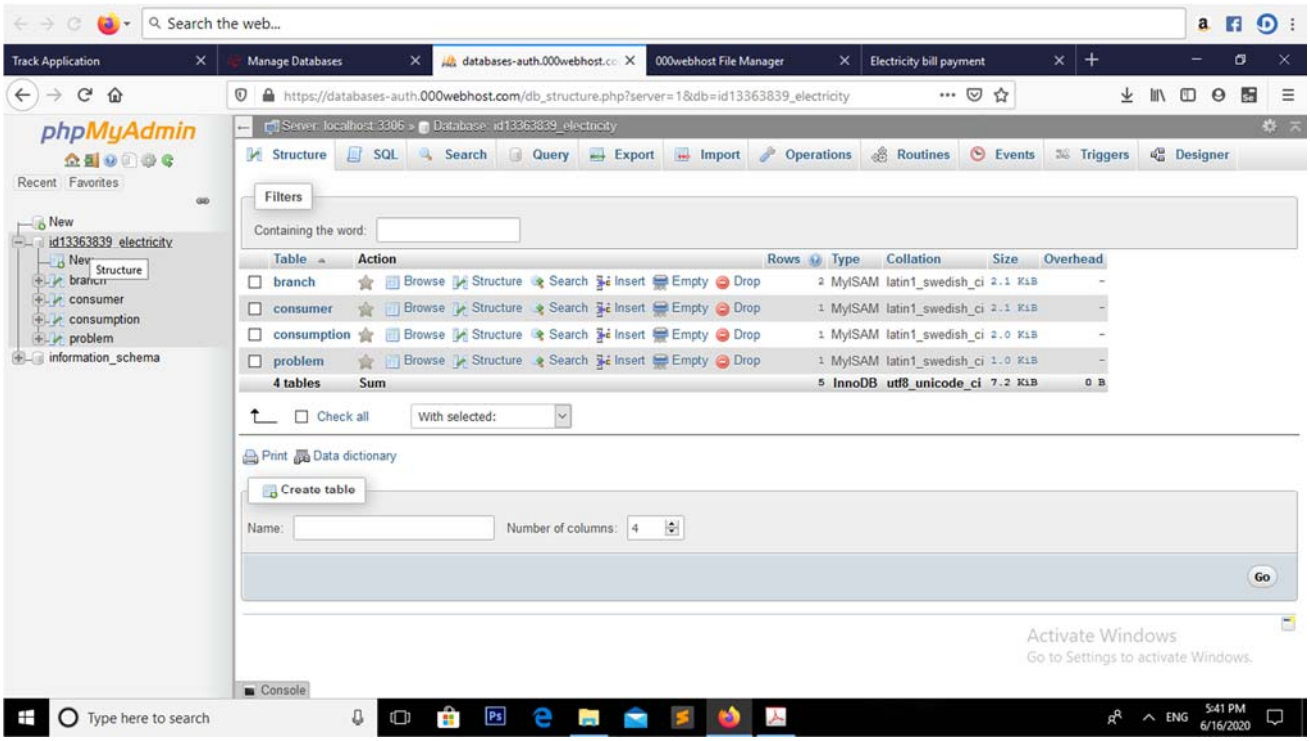
The website is being developed by using the Standard Web designing languages such as HTML, CSS and Javascript. The data of the web application is stored in the MySQL database and then is run via the local servers such as xamp, wamp or mamp etc. Once the website is working fine the scripts of to the website is uploaded to the 000webhost by creating a website in my sites option.

The sites and then moved to the public_html folder which is the root folder for the scripts to run.

The site and the run via cloud platform and and the database is to be created on the cloud where the data needs to be stored. After all the connections are done then the website will work fine on the cloud and the users can use the website from anywhere.

Snapshots of the cloud platform are:

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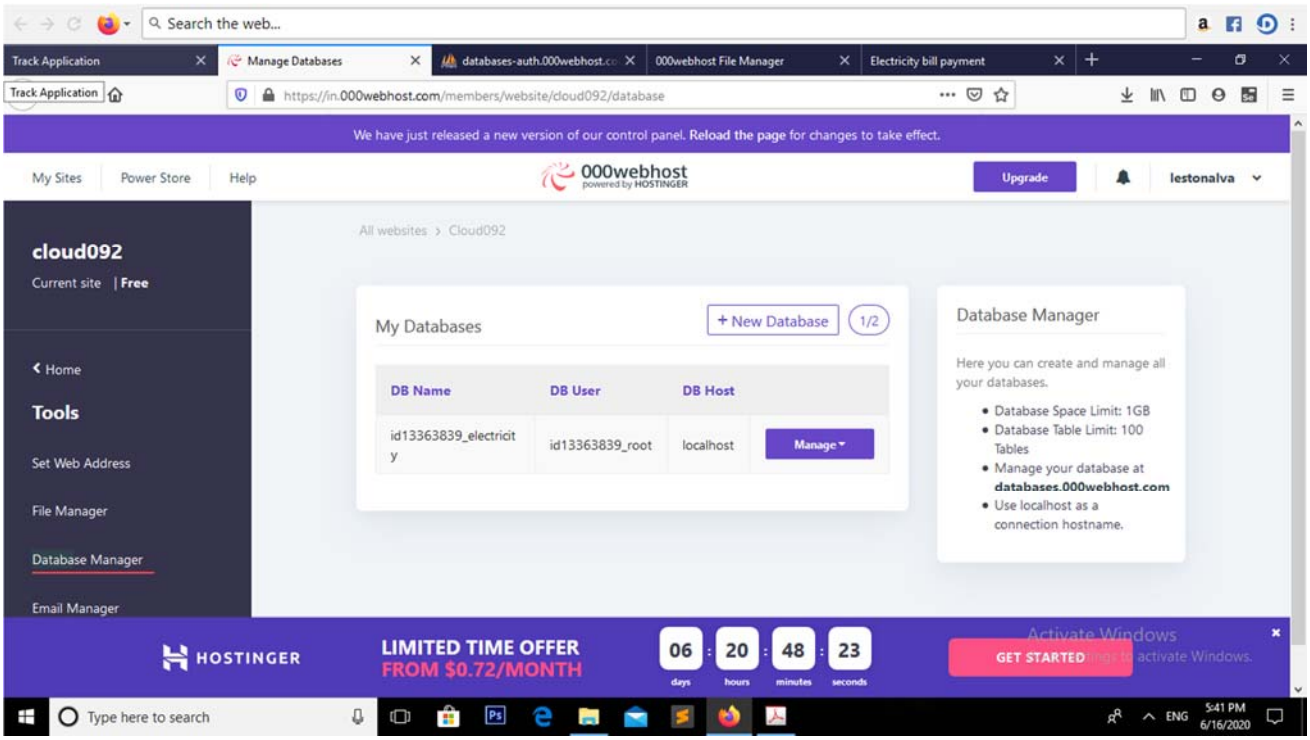
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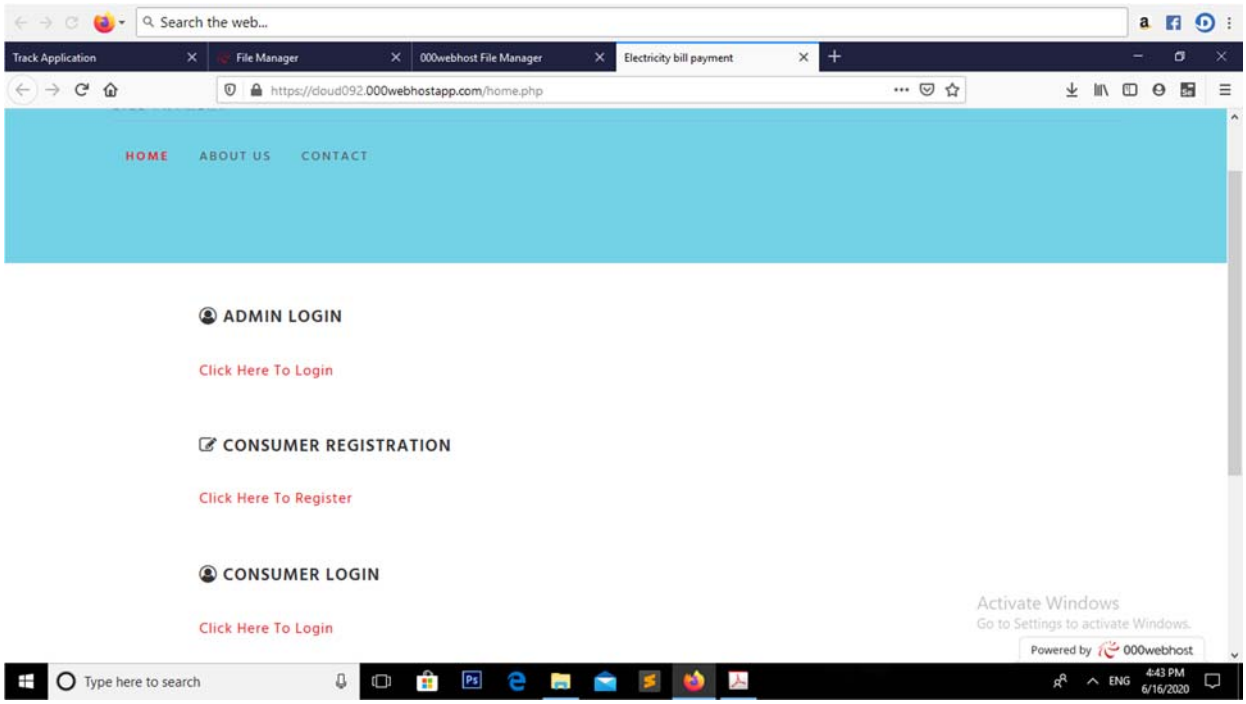
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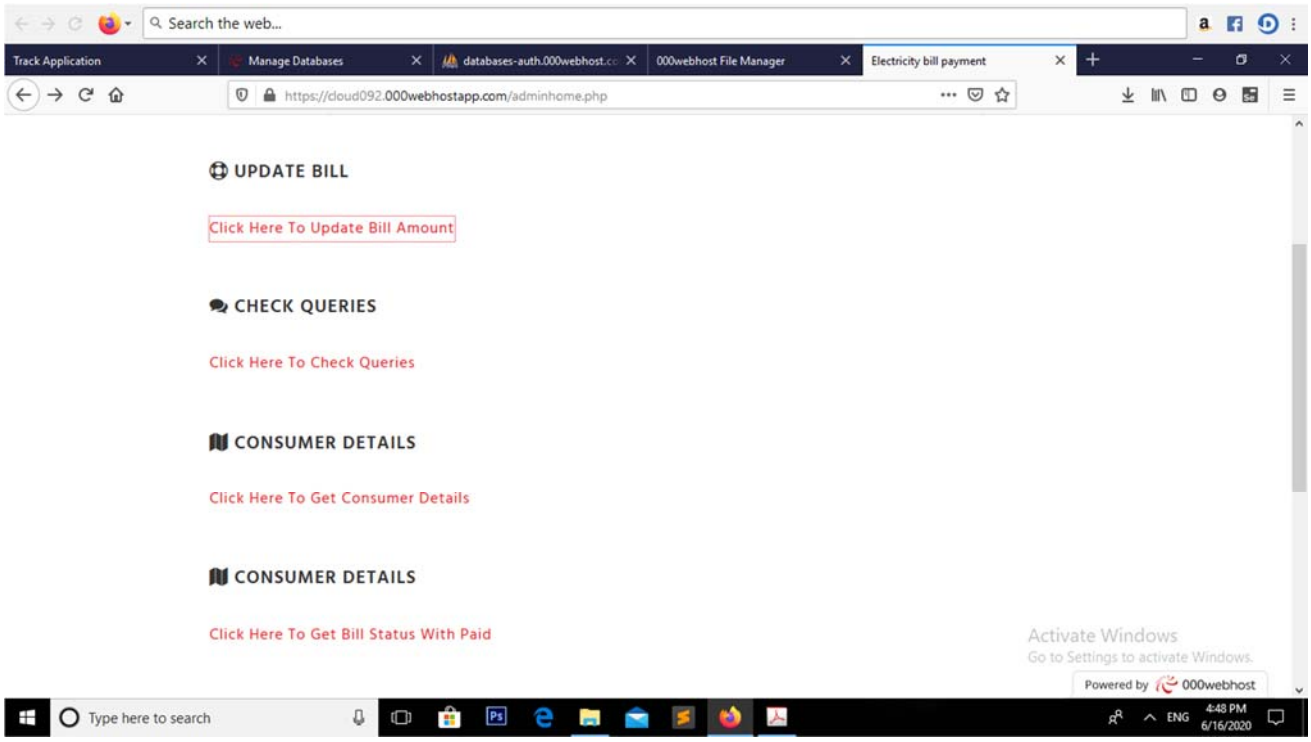
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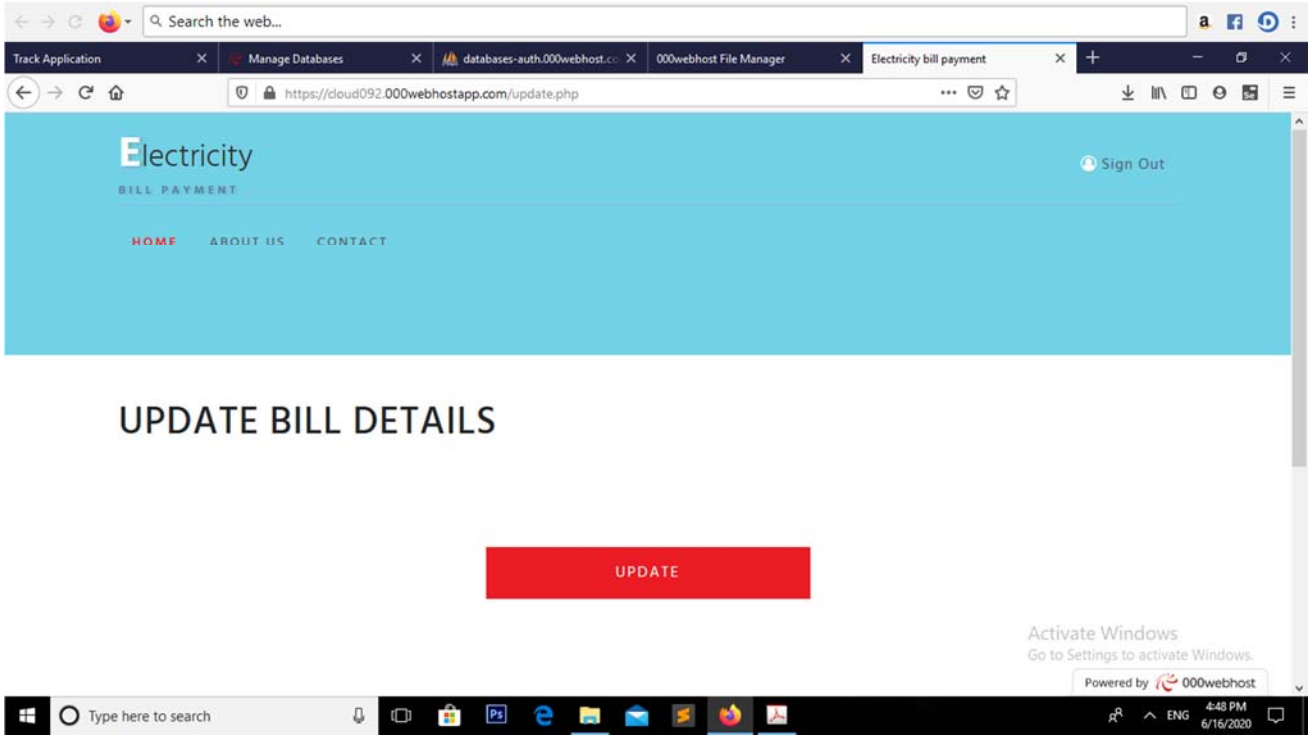
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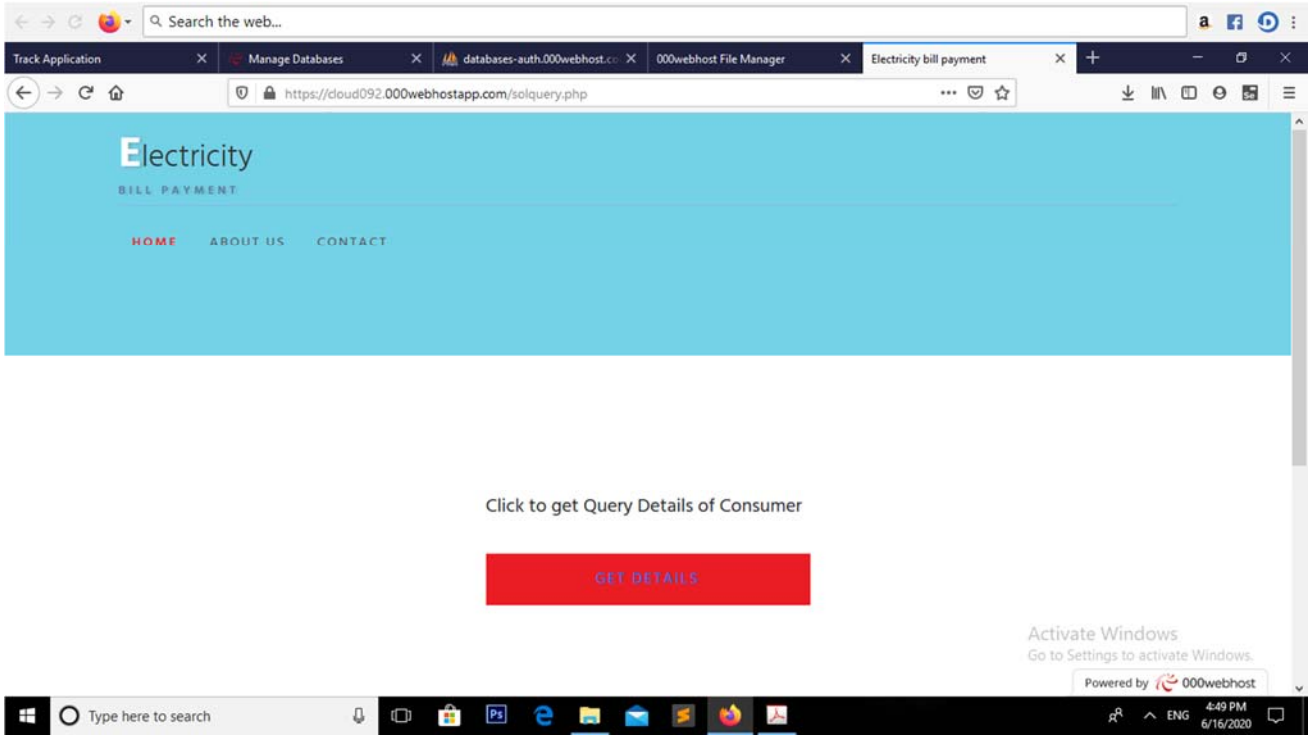
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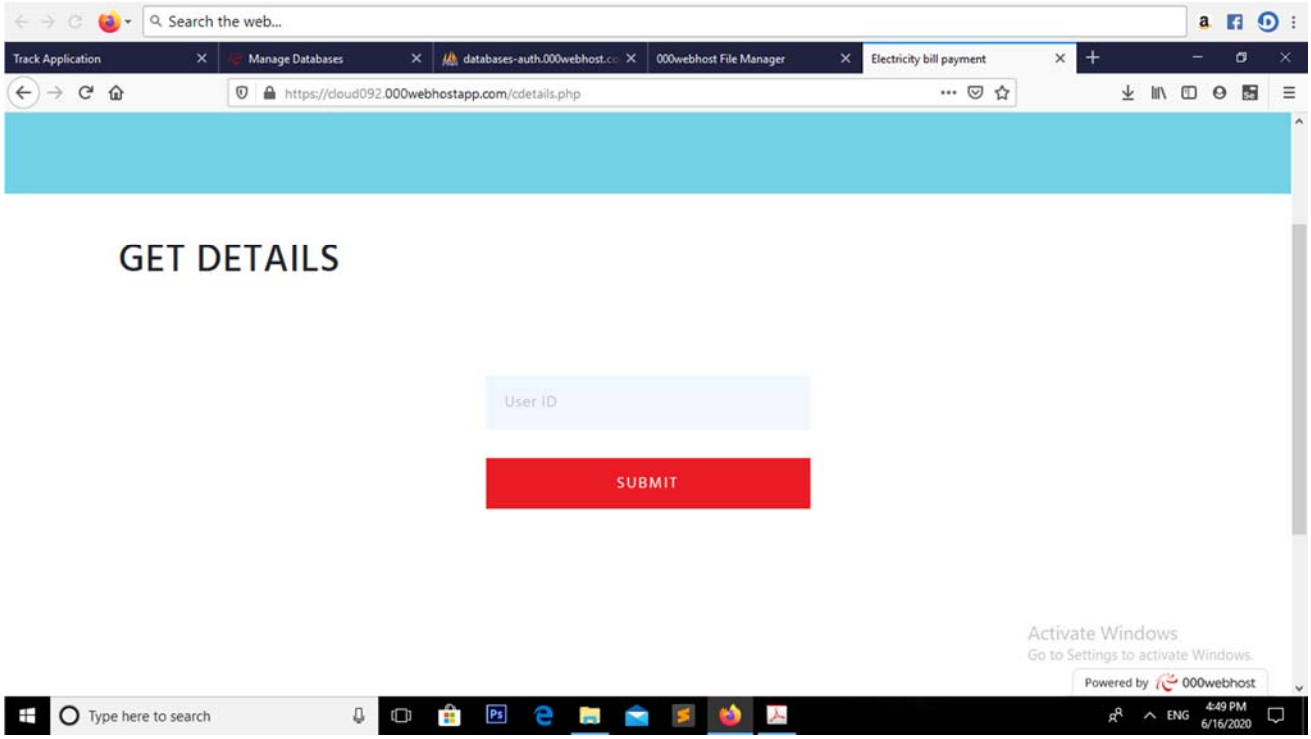
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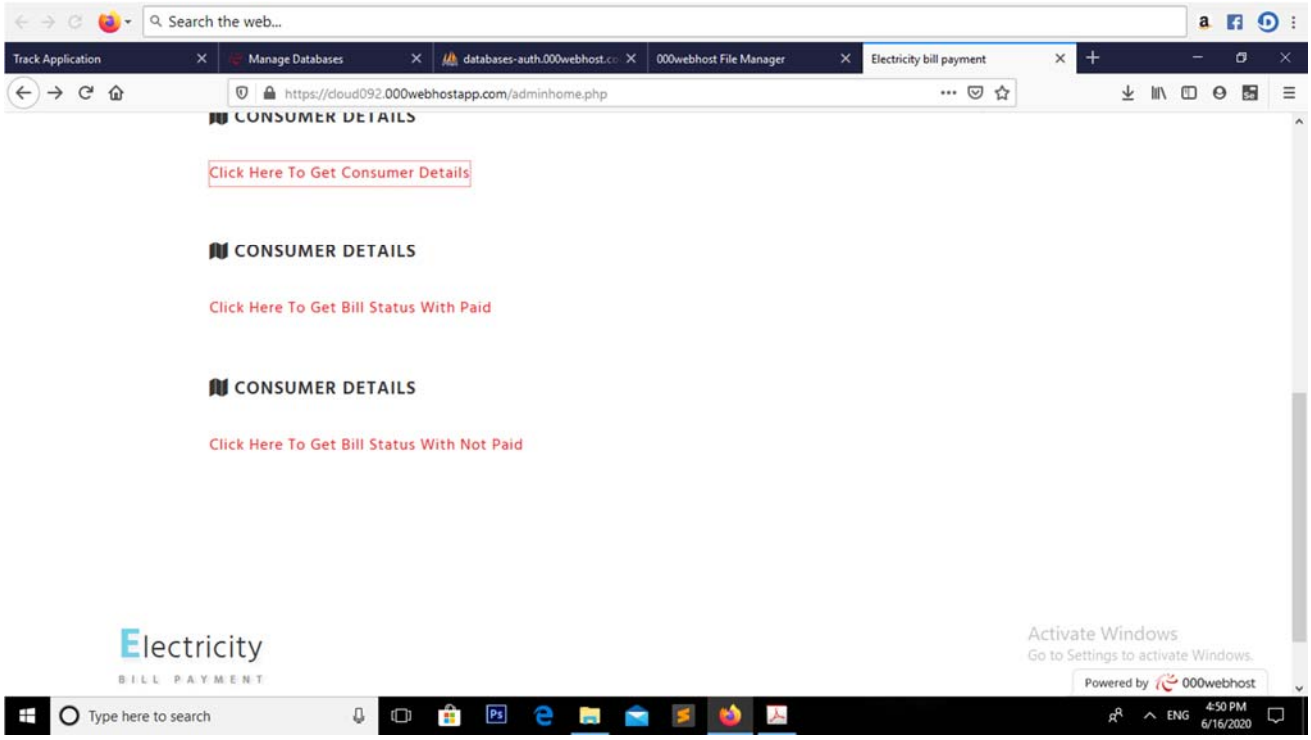
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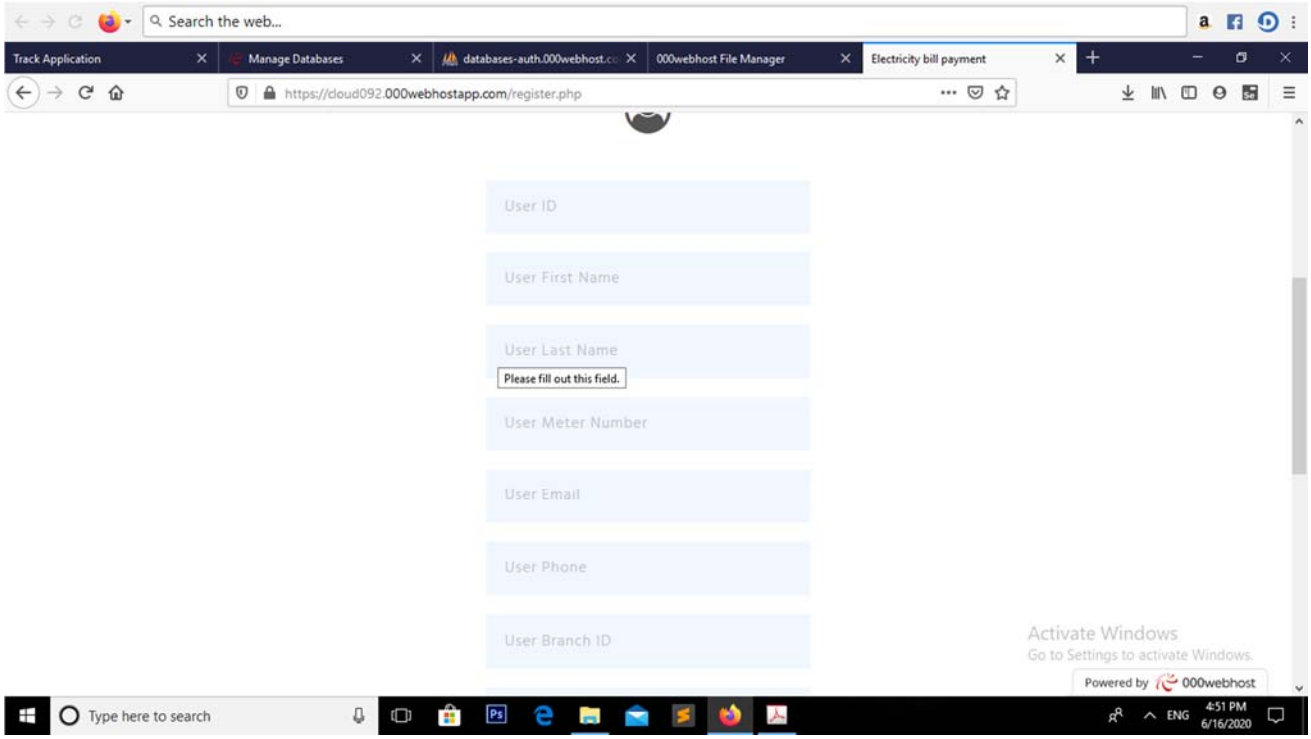
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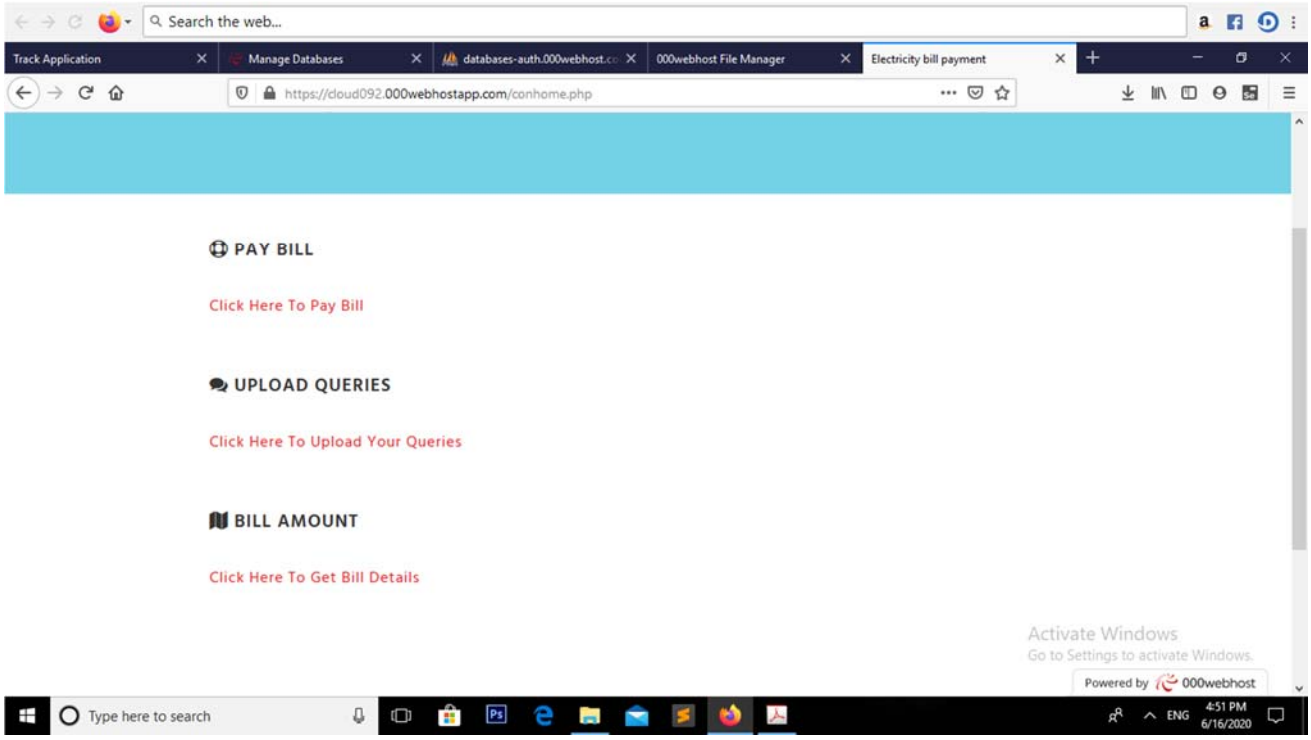
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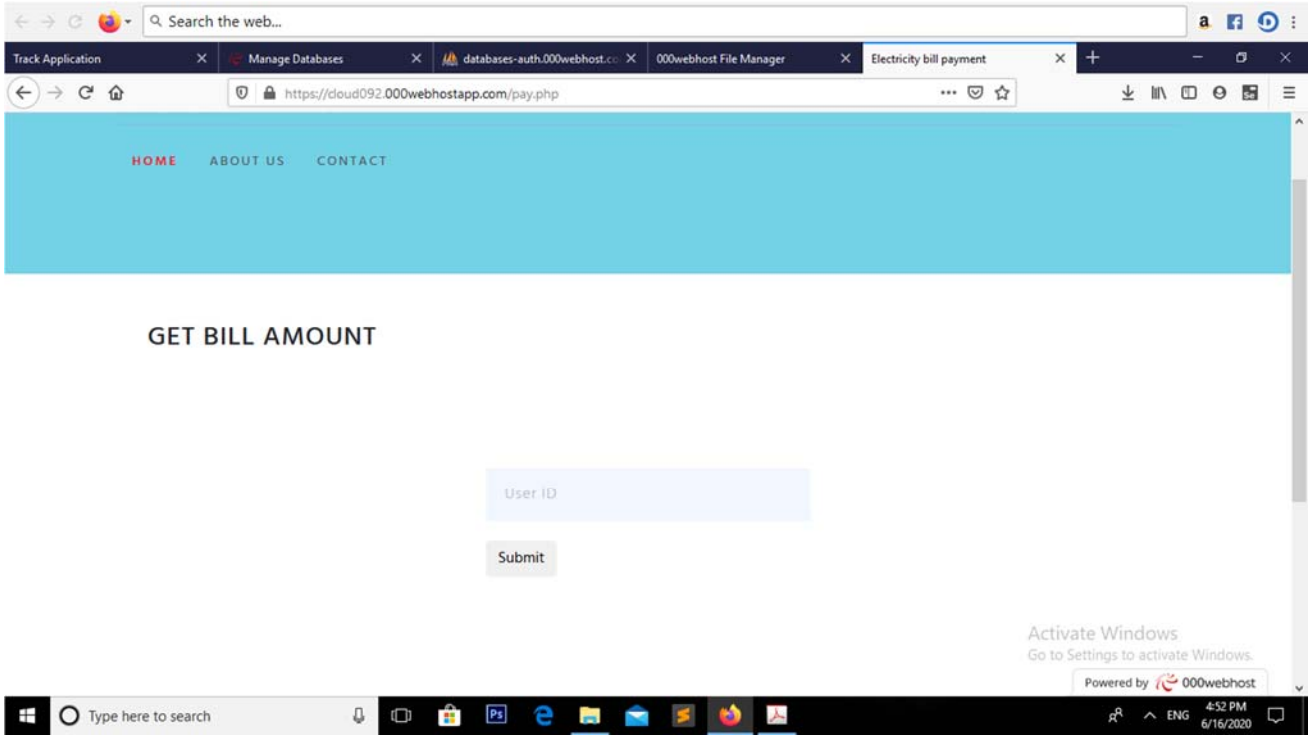
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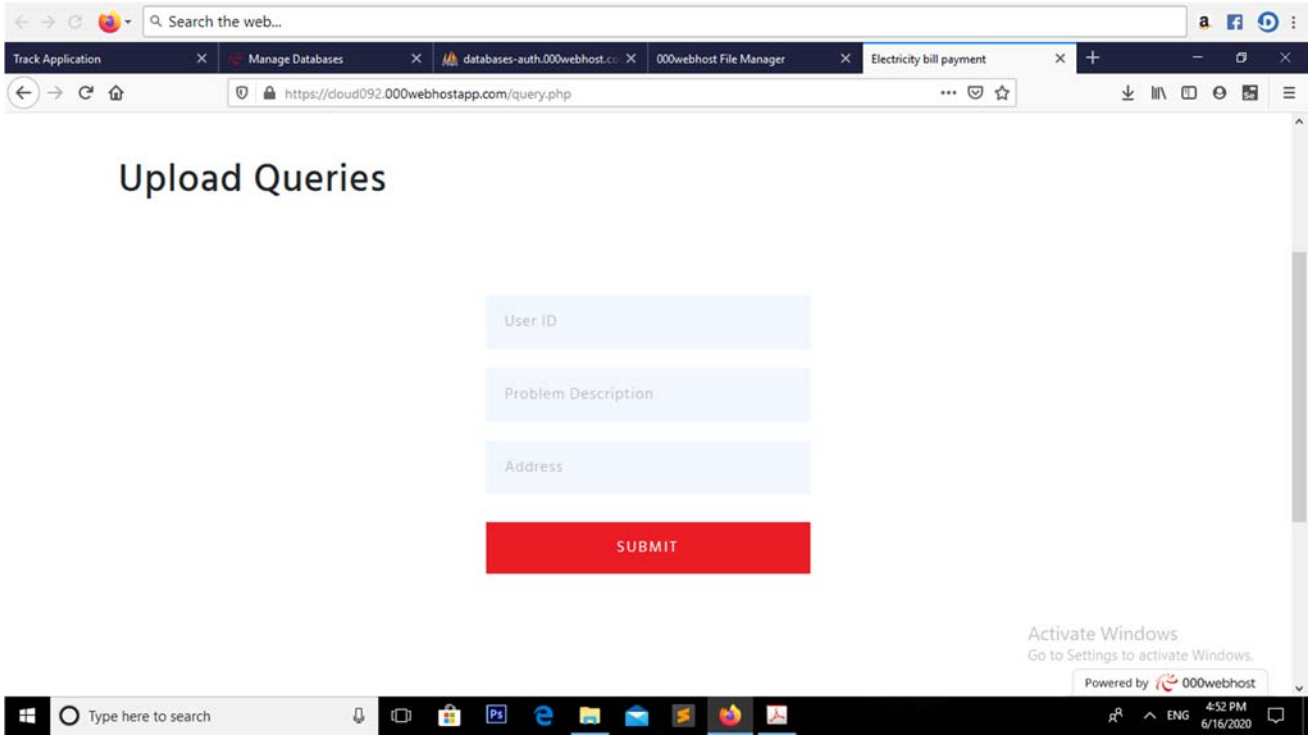
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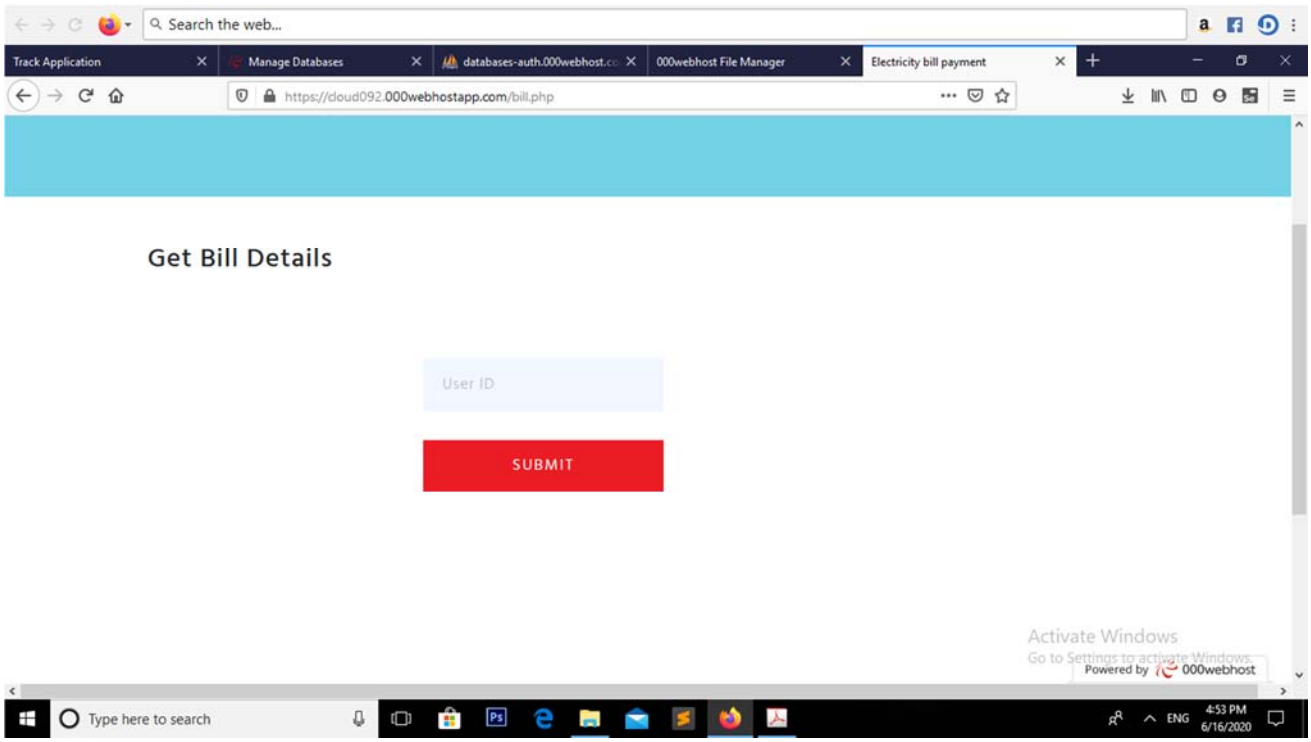
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CONCLUSION

In the past few years, it has been noticed that online bill payment has virtually eliminated many errors----which were mainly human errors. People using their debit or credit cards can now manage their accounts much easier with online bill payment services. When compared to the traditional methods of mailing cheques for making payments, Electricity Bill Online Payment Systems are much faster. In this electronic age, user will have to be abreast with the current trends or there are chances that user may be blown away into oblivion or in the deepest abyss.

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