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# Online Advertisement System with Real Time Security and Authentication for Dual Booking

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**Abstract--** Our system deals with a real-time security system for authorized users. Generally there is no need of secure authentication for advertisers but here we have added mail based One Time Password (OTP). It is designed based on a combinational double auction, Advertiser registration admin registration verified with OTP. It reduces the risk of fake adds and click frauds. USER and its applicability and effectiveness are evaluated in terms of resource efficiency and monetary benefits to travellers and travel companies. Commercial advertising has greatly benefitted from Internet services and online advertising can even be considered as the foundation of web economy. However, despite the availability of many books on how to create, use and make profit from online advertisement; there is little in-depth study on its true nature, security and privacy concerns. Through this research, the authors were able to establish an in-depth understanding of online advertising by collecting and analyzing numerous data on online advertising, with the hope that it could serve as a basis for further study on the field.

**Index Terms—**Authentication, quikr, beginner

## I. INTRODUCTION

The system of online advertising is quite unique. Unlike conventional forms of advertising, the system of online advertising allows its target to receive something in return in exchange for viewing the advertisement. Besides getting information from the advertisement itself, the target of online advertising is usually allowed to use the advertisement host website's service. For example, vide02mp3.net, a website that offers free file conversion from YouTube video to mp3 format, has numerous advertisements displayed on its page. It even goes as far as setting a hidden advertisement that will only appear when the user clicks the "High quality" option. Nevertheless, the users are not required to pay for the service. They are instead offered a premium service where they can get exclusive access to the website without advertisements popping up along the way. In this way, online advertising has defined a new term of "free service", where four parties – the advertisers, the ad network, the ad hosts, and the users - are involved within it. A. The Nature of Online Advertising Online advertising began like any television advertisement, where the goal was for the advertisement to be viewed by as many people as possible without caring who the advertisement was for. Many online advertisements were placed in popular websites in order to make sure the ad was viewed as much as possible. However, with the rapid growth of online content in the last decade, advertisers became more aware that demographic information would allow more targeted approach in the advertisement. As the more and more sophisticated, advertisers find more effective.

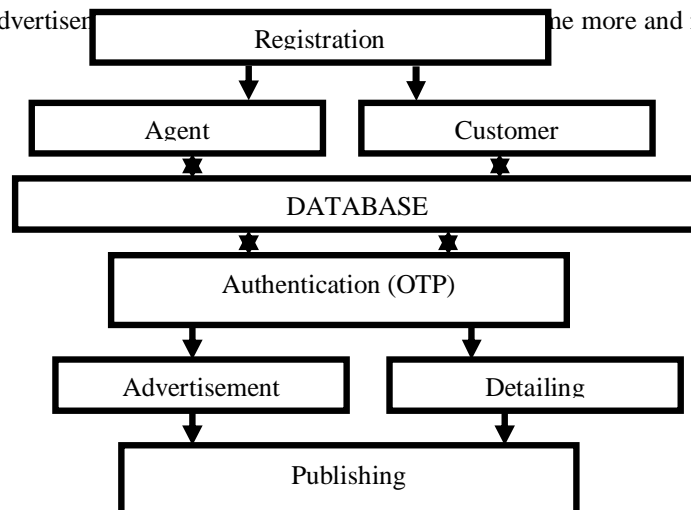


Fig 1 :- Architecture Diagram

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strategies, e.g. contextual targeting, in order to attract the attention of more targeted audiences as opposed to the basic targeting techniques such as time, frequency, demography, etc [1]. Today, with the prevalence of Internet access and the amount of time consumers spend online, advertisers have moved away from mass marketing programs and are more focused on targeted and personalized marketing. B. Parties Involved in Online Advertising The first party is the advertisers. The advertisers are the "payer" in this relationship. All money comes from the advertisers and is distributed among two other parties, the ad network and ad host, who deliver the advertiser's ads to the users. In turn, some of the users will become the advertisers' customers and give the advertisers the profit they need to keep their economy wheel rotating. Advertisers are most vulnerable to attacks like click-fraud and usually incur the most damage monetary wise. The second party is the ad network. The ad network's job is to find websites-that are willing to host an advertiser's advertisement. Advertisers pay the ad network and in return the ad network pays the host websites. The ad network measures the price of their service by counting how much the ads are viewed or accessed. The more an ad is seen or accessed, the higher the pay. The ad network is the only party who can profit from click-fraud attack. The third party is the ad hosts. The ad hosts are websites that host the advertisements received from ad networks or directly from advertisers. Websites like blogs or social networking websites (e.g. Facebook) cannot directly charge their users or visitors money for fear of losing them. By hosting ads, they can get profit without worrying about charging their users while keeping their focus on maintaining the website. The last party is the users themselves. The users are the target of online advertising, and more often the most vulnerable party among the four. While they can enjoy web surfing without paying, thanks to the unique system of online advertising, they are potential victims of online advertising malpractices. Yet, at the same time, they can also be involved in online advertising fraud without realizing it. This aspect shall be explained further below. Unlike common perception, the issues revolving around online advertising do not concern only the users, but also the other parties. Some parties may incur even more damage more than the users. Below are the two most common issues of online advertising.

### II. OBJECTIVE

To create a group system to provide security of advertisement against Click Frauds and Unauthorized Access.

To create the login and user account for both add providers and customer.

To create real time mail based verification to avoid security constrains against fake users.

#### A. Existing/Proposed System

1) *Online advertisement system for bus or hotel individually without real time verification:* So many systems has been created in The Online Bus Reservation System (OBRs) is a web-based system. It allows customer to check the ticket availability and search for the most possible prices. The most advantages of this system are allowing the customers to search and choose his/her seat position and ticket payment procedure. In this research, we gather the information to define the requirements of the new application. In addition to design and develop OIBRS the Unified Modeling Language (UML) used to model the software and Entity Relationship Diagram (ERD). Both have been established to describe a plan which executes the requirements. The scope of this paper covers customer services to book bus ticket and company daily management work. Furthermore, this work use C# as programming language and Microsoft SQL server 2008 for Data Base implementation .In order to evaluate the Usability of the system, we used Computer System Usability Questionnaires (CSUQ) as application to achievement of this task.

#### 2) *Disadvantages of Existing System:*

- a) No verification level of security for genuine fake users.
- b) Higher booking cost due to non-availability of group auction of hotel and bus

#### B. Proposed System

Our work is intended to introduce a hybrid system of group auction system in which we can plan our single to multiday travel planning. Even we can provide the advertisement as the agent and see as customer. Even we have booking features. In that we can plan our journey from a single website by creating the dual mode of database creation. We first create the database for the login and verify as OTP. The system also uses the mail verification system to avoid security issues.

#### C. Advantages of Proposed System

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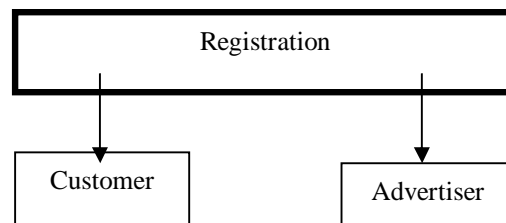
- 1) Hybrid advertisement with advertiser authentication
- 2) Single point dual advertisement
- 3) Mail level security by one time password verification
- 4) Can easily track the fraud providers

### III. MODULE DESCRIPTION

#### A. Modules Description

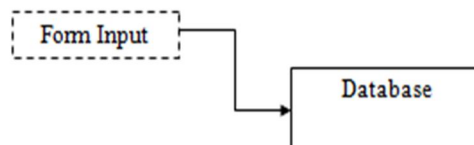
##### 1) User Registration

- a) We first need to register as the customer or the agent so that we can update the cost, distance and all details possible for journey advertisement.
- b) The dual login system can be created where all the details should be filled in the GUI form.



##### B. Database

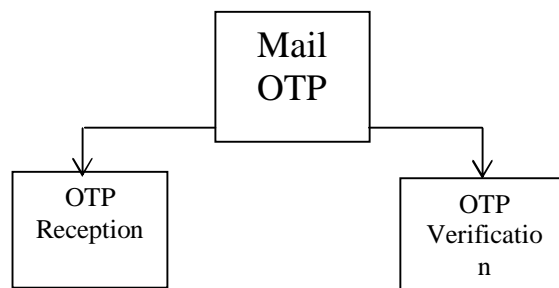
- 1) We need to create database in real time so that it can be used by both customer and advertiser to update and select the desired options and match.
- 2) The database will be executed using SQL server 2008 and the execution can be done using visual Studio 2010.



##### C. One Time Password (OTP) for mail verification

We send our one time password (OTP) through mail to customer and agent so that we can avoid any type of forgeries.

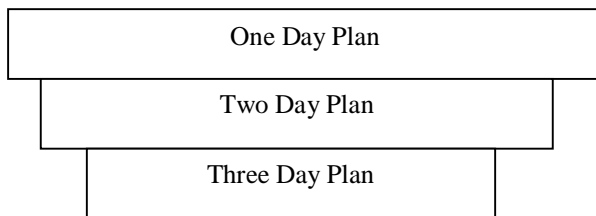
- 1) For that we need net connection to get OTP.



##### 2) Advertisement Editing

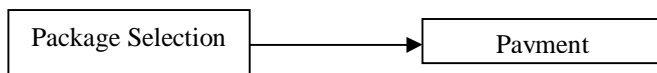
- a) We can select our desired day for journey by selecting one to five days of itineraries.

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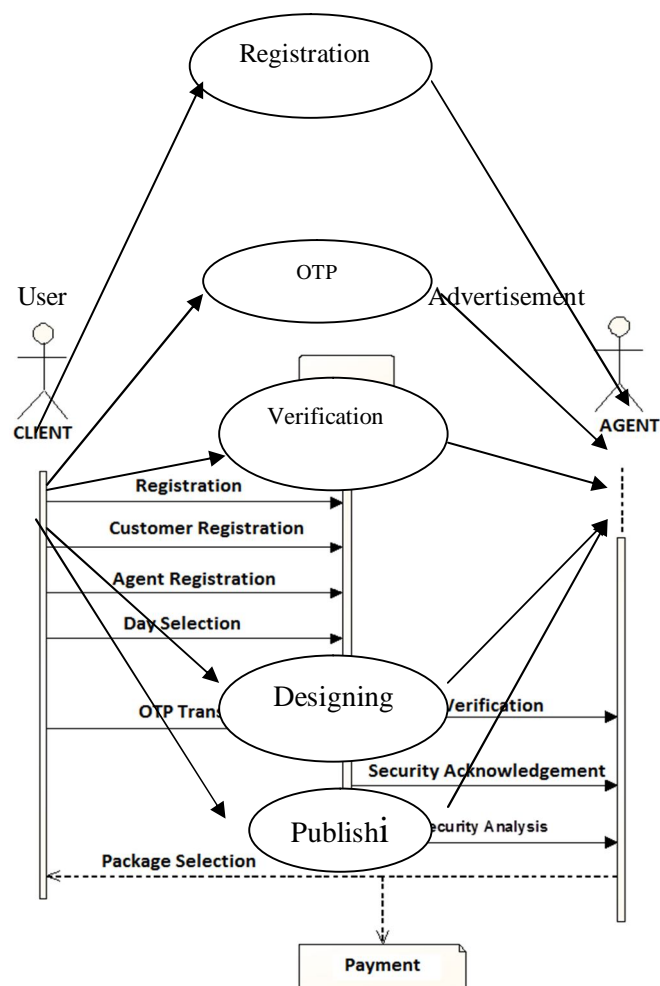


### 3) Package Selection and Payment

- a) We need to select the package like bus/hotel and payment module.
- b) It is the final step for final day panning.



### 4) Use Case Diagram



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## IV. CODING DESIGN

```
Imports Microsoft.VisualBasic
Imports System.Data.SqlClient
Imports System.Net.Mail
Imports System.Net
Imports System.Security.Cryptography
Imports System.IO

Public Class CodeClass

    Dim S As String = ""

    Public Con As String = "Data Source=NIRMALROHAN-PC\SQLEXPRESS;Initial Catalog=TravelPlaning;Integrated Security=True"

    Public Function GetOwnerName(ByVal Mail As String) As String

        GetOwnerName = ""

        Dim Cn As New SqlConnection(Con)

        Cn.Open()

        Dim Cmd As SqlCommand

        S = "Select Name From Register Where Mail=@MI"

        Cmd = New SqlCommand(S, Cn)

        Cmd.Parameters.Add(New SqlParameter("@MI", Mail))

        If Convert.ToString(Cmd.ExecuteScalar) <> "" Then

            GetOwnerName = Convert.ToString(Cmd.ExecuteScalar)

        ElseIf Convert.ToString(Cmd.ExecuteScalar) = "" Then

            GetOwnerName = Mail

        End If

        Cmd.Dispose()

        Cn.Close()

    End Function

    Public Function GetMob(ByVal Mail As String) As String

        GetMob = ""

        Dim Cn As New SqlConnection(Con)

        Cn.Open()

        Dim Cmd As SqlCommand

        S = "Select MbNo From Register Where Mail=@MI"

        Cmd = New SqlCommand(S, Cn)
```



## International Journal for Research in Applied Science & Engineering Technology (IJRASET)

```
Cmd.Parameters.Add(New SqlParameter("@MI", Mail))
If Convert.ToString(Cmd.ExecuteScalar) <> "" Then
    GetMob = Convert.ToString(Cmd.ExecuteScalar)
ElseIf Convert.ToString(Cmd.ExecuteScalar) = "" Then
    GetMob = "0"
End If
Cmd.Dispose()
Cn.Close()
End Function

Public Function GetAddr(ByVal Mail As String) As String
    GetAddr = ""
    Dim Cn As New SqlConnection(Con)
    Cn.Open()
    Dim Cmd As SqlCommand
    S = "Select Address From Register Where Mail=@MI"
    Cmd = New SqlCommand(S, Cn)
    Cmd.Parameters.Add(New SqlParameter("@MI", Mail))
    If Convert.ToString(Cmd.ExecuteScalar) <> "" Then
        GetAddr = Convert.ToString(Cmd.ExecuteScalar)
    ElseIf Convert.ToString(Cmd.ExecuteScalar) = "" Then
        GetAddr = "0"
    End If
    Cmd.Dispose()
    Cn.Close()
End Function

Public Function GetOwnerID(ByVal Mail As String) As Long
    GetOwnerID = 0
    Dim Cn As New SqlConnection(Con)
    Cn.Open()
    Dim Cmd As SqlCommand
    S = "Select UID From Reg Where Mail=@MI"
    Cmd = New SqlCommand(S, Cn)
    Cmd.Parameters.Add(New SqlParameter("@MI", Mail))
    If Val(Convert.ToString(Cmd.ExecuteScalar)) >= 1 Then
```

## International Journal for Research in Applied Science & Engineering Technology (IJRASET)

```
GetOwnerID = Val(Convert.ToString(Cmd.ExecuteScalar))

ElseIf Convert.ToString(Cmd.ExecuteScalar) <= 0 Then
    GetOwnerID = 0
End If

Cmd.Dispose()
Cn.Close()

End Function

Public Function RandomNumber(ByVal Minvalue As Long, ByVal MaxValue As Long) As Long
    Dim rn As New Random
    RandomNumber = rn.Next(Minvalue, MaxValue)
End Function

Public Sub MailSending(ByVal TOAddr As String, ByVal Subject As String, ByVal MailMsg As String)
    Dim gMailAccount As String = "arihantdemo@gmail.com"
    Dim password As String = "arihant#123"
    Dim loginInfo As New NetworkCredential(gMailAccount, password)
    Dim msg As New MailMessage()
    msg.From = New MailAddress(gMailAccount)
    msg.To.Add(New MailAddress(TOAddr))
    msg.Subject = Subject
    msg.Body = MailMsg
    msg.IsBodyHtml = True
    Try
        Dim client As New SmtpClient("smtp.gmail.com")
        client.Port = 587
        client.EnableSsl = True
        client.UseDefaultCredentials = False
        client.Credentials = loginInfo
        client.Send(msg)
    Catch ex As Exception
    End Try
End Sub

Using cs As New CryptoStream(ms, encryptor.CreateEncryptor(), CryptoStreamMode.Write)
    cs.Write(clearBytes, 0, clearBytes.Length)
    cs.Close()
```



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```
End Using

clearText = Convert.ToBase64String(ms.ToArray())

End Using

End Using

Return clearText

End Function

Public Function Decrypt(ByVal cipherText As String) As String

Dim EncryptionKey As String = "MAKV2SPBNI99212"

Dim cipherBytes As Byte() = Convert.FromBase64String(cipherText)

Using encryptor As Aes = Aes.Create()

Dim pdb As New Rfc2898DeriveBytes(EncryptionKey, New Byte() {&H49, &H76, &H61, &H6E, &H20, &H4D, _
&H65, &H64, &H76, &H65, &H64, &H65, _
&H76})

encryptor.Key = pdb.GetBytes(32)

encryptor.IV = pdb.GetBytes(16)

Using ms As New MemoryStream()

Using cs As New CryptoStream(ms, encryptor.CreateDecryptor(), CryptoStreamMode.Write)

cs.Write(cipherBytes, 0, cipherBytes.Length)

cs.Close()

End Using

cipherText = Encoding.Unicode.GetString(ms.ToArray())

End Using

End Using

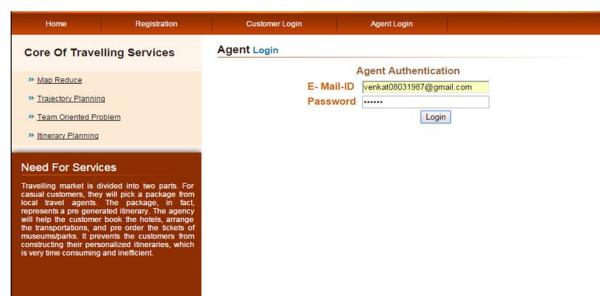
Return cipherText

End Function

End Class
```

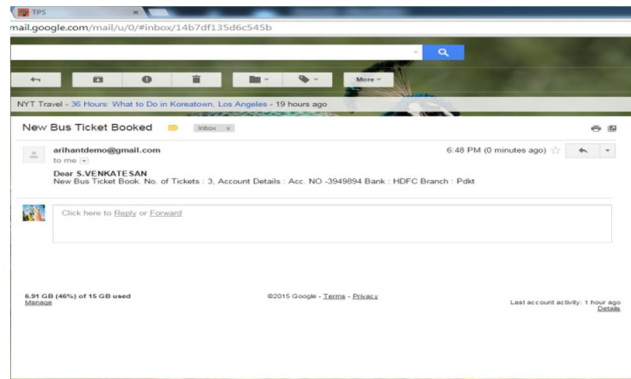
### V. SCREEN SHOTS

#### A. User Registration



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## B. OTP mail verification



## C. BUS Journey Advertisement

Home | Tour Pack | Daily Bus | Hotel | Bookings | Signout

Welcome : S.VENKATESAN

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
» Itinerary Planning

**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre-generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre-order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**Daily Bus Trips**

**Daily Bus Planning Master**

Bus Name

From  To  Distance

No. of Seats  Type  Cost

## D. Hotel Journey Advertisement

Home | Tour Pack | Daily Bus | Hotel | Bookings | Signout

Welcome : S.VENKATESAN

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
» Itinerary Planning

**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre-generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre-order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**Hotel Details**

**Hotel Master**

Hotel Name

Place  Rooms Type  Room Rent

Restaurant  Food  Cost

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## E. Advertisement Selection

Home Tour Pack Daily Bus Hotel Bookings Signout

Welcome :

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
» Itinerary Planning

**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**View Bookings**

BUS NAME	FROM	TO	TYPE	COST	Reserve
VSS TRANSPORTS	PUDUKKOTTAI	CHENNAI	NORMAL	400	Reserve

## F. View Daily Buses

Home Packages Daily Buses Hotels Response Signout

Welcome : S.SURYA

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
» Itinerary Planning

**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**View Daily Buses**

BUS NAME	FROM	TO	TYPE	COST	Reserve
VSS TRANSPORTS	PUDUKKOTTAI	CHENNAI	NORMAL	400	Reserve

Home Packages Daily Buses Hotels Response Signout

Welcome : S.SURYA

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
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**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**View Daily Buses**

No. of Persons

Account Details

E- Mail-ID

Mobile

Address

☐ I agree the Terms & Conditions fixed by the Agent.

Submit

Home Packages Daily Buses Hotels Response Signout

Welcome : S.SURYA

» Map Reduce  
» Trajectory Planning  
» Team Oriented Problem  
» Itinerary Planning

**Need For Services**

Travelling market is divided into two parts. For casual customers, they will pick a package from local travel agents. The package, in fact, represents a pre generated itinerary. The agency will help the customer book the hotels, arrange the transportations, and pre order the tickets of museums/parks. It prevents the customers from constructing their personalized itineraries, which is very time consuming and inefficient.

**View Daily Buses**

No. of Persons

Account Details

E- Mail-ID

Mobile

Address

☐ I agree the Terms & Conditions fixed by the Agent.

Submit

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## G. Advertisement Publishing

BUS NAME	CREATED BY	NO.OF PERSONS	CREATED ON	ACCOUNT
VSS TRANSPORTS	suryademo2014@gmail.com	3	12-Feb-2015	Acc. NO :3949894 Bank : HDFC Branch : Pdkt

## VI. CONCLUSION

Thus we developed the project which is intended to introduce a hybrid advertisement system in which we can plan advertisement in real time. Even we can provide the advertisement as the agent and see as customer. We have booking features. In that we can plan our journey from a single website by creating the dual mode of database creation. We first create the database for the login and verify as OTP. The system also uses the mail verification system to avoid security issues.

## VII. ACKNOWLEDGMENTS

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