

## MD5 based Software Solution used for Reservation Management

1st Author

Prof. Prakash Devale

Department of Information Technology

Bharati Vidyapeeth (Deemed to be University)

College of Engineering, Pune, India

2nd Author

Sumedha

Department of Information Technology

Bharati Vidyapeeth (Deemed to be University)

College of Engineering, Pune, India

### ABSTRACT

Software solution used for reservation management is essentially designed to help multiple travel agents, tour operators, Destination Management Company and travel agencies to respond effectively to their customers' requisites, integration with online booking technology. Online travel management[2] software is a platform designed to meet all the requirements covering Travel and hotel reservations, its operations, back office, contracts of each user and their distribution process. With the help of super advanced and intelligent tools and means that has been incorporated in this software, Travel Management System has been made to meet users end-to-end understanding and problems that has been resolved which ultimately helps them to bring about a better booking as well as travel experience. An online Travel Booking Software configures travel data for several villas/hotels, flights/trains, tour, and car-rental services in TRS to provide flights, hotels and tour booking for users. It provides directory and cost in real-time data to the customers and also

provisions booking hotels in many different geographical locations. It creates and delivers a customized Travel Reservation Software for travel agents which give flexible reservation and cost management for flights, hotels, cars in real time. All of the services that are provided are rendered useless if the security of the application is compromised and that is where my project comes in. My online booking system using MD5 provides invincible security to the data and information that is present in the database of the application.

### INTRODUCTION

Travel Reservation Software provides fast and upgraded services to develop a connection between the customers and the travel agent to collect and store the global database of hotel, flight, tour packages during booking through the portals and sites with updated utility of GDS API technique for each sector resulting in a successful online travel management system.

The online booking travel system using MD5 provides multiple features in addition to the

invincible security that is provided with the help of Message Digest algorithm 5. The very core features are Travel Management: this will be the prime function in organising business that online booking systems have performed, this would include the management of the transport ticket, search for accommodation and car rentals, etc. Although this function has been performed for a long time, new technologies have changed the way most of these tasks are usually carried out, with multiple aspects coming in to play such as cost comparisons or strategies for obtaining major deal and discount. Passenger assistance: In one journey, there might be multiple unexpected problems that will be needed to take care of: repatriation, accident, lost luggage or documents, etc. Consulting: this includes large number of strands which are related with travel: description of interest of the user, customs of the destined place, recommendations on the behaviour, rate optimisation and suggestions on travel policies etc. Marketing and internal communication: Due to its experience, a an online booking travel management agency can come handy in making travel policies for different companies and its genuine and effective communication to the customers. Technology: it is very important to have an updated version of software and technology which is being used because it helps in checking different price values of tickets as well as booking services and gives proper results while managing bills or getting any particular data for any customer during emergency.

Some service providers also offer discounts and other advanced facilities for their employees and family members. Certain corporate companies offer exciting offers and services in order to keep their expectations and experience fluid which in return adds value to their service in respective companies.

## IMPLEMENTATION

My project, Online travel booking system using MD5, is based on Message Digest Algorithm 5, essentially used to authenticate files[4]. It's easier to use the MD5 hash to cross check a copy of a user's info against an original than to actually check bit by bit to see if the two copies are even remotely same. This was used for data security and encryption, but now a days its primary used for authentication. MD5 is the fifth version of the Message-Digest Algorithm which was developed by Ron Rivest to produce a 128-bit message digest, it is faster than the other subsequent versions of the same. It takes in a plain text of 512-bit blocks and divides it into 16 blocks, each of 32 bit and the further produces the 128-bit message digest which is actually a set of four blocks those are of 32 bits. MD5 essentially produces the entire message digest through concrete five steps, i.e. padding, appending length and then dividing the input into 512-bit blocks, initialising the chaining variables a process blocks and four rounds, and using separate unique constant in each iteration.

## WORKING

My project, MD5 based online travel booking system, works like an ordinary travel management system with additional stout security[3]. This security is provisioned with the help of message digest algorithm, it works on a mathematical hashing algorithm upon all the database to produce a match between the original data and user's data. Using this, the originality of the user's input is verified from the database making sure that the files are sent to the right place. The project works on MD5 algorithm:

The data of the users entered in the database is processed in 512 bit strings

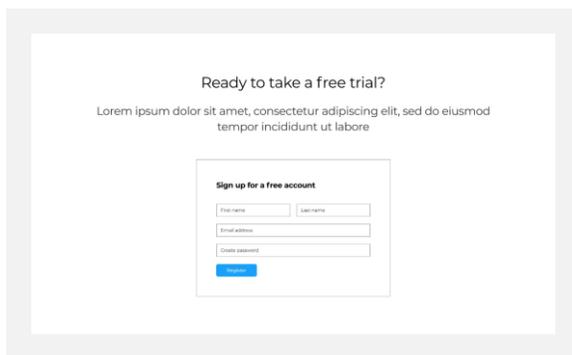
and broken down into 16 words composed of 32 bits each.

After the input data is processed, it returns the user data as output: a fixed length digest.

This fixed length digest value is used for authenticating the original user data.

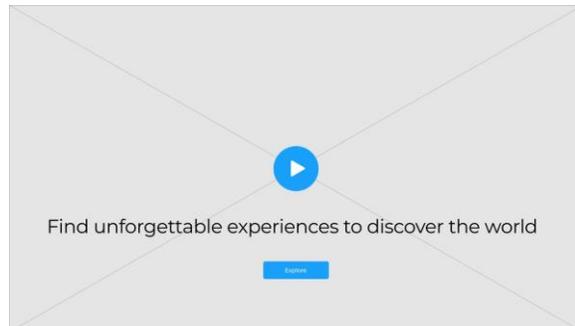
This algorithm converts the input into a string containing 32 characters. For example “frog” will always generate the hash: 938c2cc0dcc05f2b68c4287040cfcf71. In the same way, if a file of higher data of approx 1 GB will also return a hash containing same character count. When that file is sent to different computer, it verifies the hash to make sure it is the same. Even the slightest change in a file will generate a different output which cannot be changed. This MD5 test will fail subsequently. The steps involved in the working of the project are:

#### STEP 1:



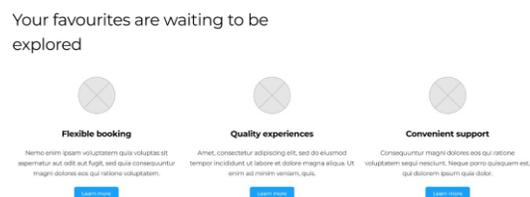
The first step involves user registration for the tourism management by entering his personal details which will be further stored in the database for the company.

#### STEP 2:



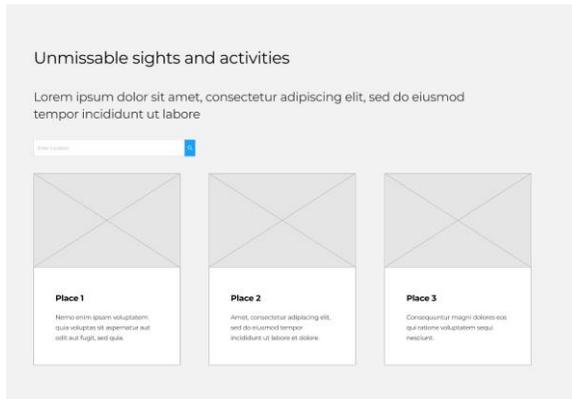
Next, the user gets the option to get to know and explore more about the different sceneries and places which might help him to plan his travel in a more peaceful and budget-friendly way.

#### STEP 3:



In this step, the user gets to explore more but in a more classified manner with tabs including different booking ways, various places to visit and a dedicated slot to contact support for any help required to answer queries that come up while booking the travel.

#### STEP 4:

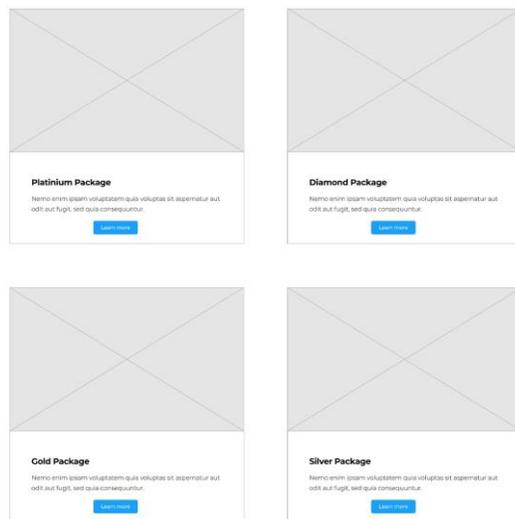


The user then gets the option to explore different places for sightseeing and travelling for the place chosen to visit and then gets a choice to make the booking accordingly.

#### STEP 5:

##### Packages that interests you

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore



Then provided are four packages from which they are supposed to choose one that is suitable to their needs and budget. The first one is silver which provides services associated with travelling and accommodation[1], then comes the Gold package which provides food and catering services in addition to the services provided in the Silver

package. Then comes the Diamond package which provides convenience services in addition to the services provided in the Gold and Silver packages. The last one is the Platinum package which is associated with the services related to the guide in addition to the services provided in the Silver, Gold and Diamond packages.

#### STEP 6:



The final step involves the provision of providing help to the user and making available the resources associated with the same.

## CONCLUSION

The main motive of this project “MD5 based software solution used for reservation management” was to help with ultimate confidentiality of the user’s database. By this project, this goal is achieved benefiting the society. Through the combination of various similar algorithms with the help of realtime data software, this hash algorithm has been developed for results analysis. This project is a complete solution to the problem that was being faced and it is now completely able to deliver results by securing the database of users while booking their travel through online mode.

## ACKNOWLEDGEMENT

I would like to extend my heartiest gratitude to the respected project guide, Prof. Prakash Devale, who gave me his avid guidance which helped me to complete this project. More words won’t be enough to express my sense of obligation for his untiring devotion. I would also

like to thank the Principal Dr Vidula Sohoni, Head of the Department of Information Technology, Prof SB Vanjale, for providing a competitive environment, which motivated all the students not only to find their goals but also to achieve them in a boastful manner.

[8]<http://ignousupport.blogspot.com/p/railway-ticket-reservation-system.html>

## REFERENCES

- [1] Online Hotel Booking System by Junxian Wang, 2006  
<https://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=4119&context=etd-project>
- [2] Travel and Tourism Management System, Published by International Journal of Computer Science and Mobile Computing, ISSN: 2320-088X  
<https://ijcsmc.com/docs/papers/October2019/V8/110201903.pdf>
- [3] Design and Implementation of an Online Tours and Travel Management System, Published by Chrisantus Oden  
<https://www.projecttopics.org/design-implementation-online-tours-travel-management-system.html>
- [4]<https://www.chetu.com/hospitality/travel-booking.php>
- [5] Hotels.com, n.d. Hotels.com. [Online] Available at:[http://www.hotels.com/?PSRC=SEMB&rffrid=sem.hcom.E5.google.003.00.01.s.kwrd=ZzZz.sEaLM1M5C.0.51707353162.10200p829340.d.c&gclid=Cj0KEQjwq52iBRDEvrC12Jnz6coBEiQA2otXAqoAxb7bw\\_O4y424TF\\_D5-09XCDcDH\\_OB46NcdzA14QaAkz58P8HAQ](http://www.hotels.com/?PSRC=SEMB&rffrid=sem.hcom.E5.google.003.00.01.s.kwrd=ZzZz.sEaLM1M5C.0.51707353162.10200p829340.d.c&gclid=Cj0KEQjwq52iBRDEvrC12Jnz6coBEiQA2otXAqoAxb7bw_O4y424TF_D5-09XCDcDH_OB46NcdzA14QaAkz58P8HAQ)
- [6] CSUSB SCHOLAR WORKS  
<https://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=4119&context=etd-project>
- [7][https://www.researchgate.net/publication/342466860\\_A\\_PROJECT\\_ON\\_ONLINE\\_TICKET\\_BOOKING\\_SYSTEM](https://www.researchgate.net/publication/342466860_A_PROJECT_ON_ONLINE_TICKET_BOOKING_SYSTEM)