

Happy Trip Application

1. Project Requirements

Happytrip.com is one of the leading companies in the world which provide services in the e-commerce domain. Happytrip.com has decided to launch a portal for users to book flight tickets online for travel across India. Below mentioned are the requirements in detail for the portal that needs to be developed.

This portal would have 2 modules

1. User – All user related operations and features to book tickets online
2. Admin – To manage data and users on the portal

User Module

a. Registration

User can register on the portal by entering information like

- a. Full Name *
- b. Email Id * [Also the login id]
- c. Password *
- d. Gender
- e. Date Of Birth *

Fields marked * are mandatory

- Login Id has to be unique – Has to be verified
- Once user registers, an email is sent to the given e-mail id, which would have a verification link. User has to click on the link and activate the account. *(This process has not been implemented as the environment doesn't support the sending of mails. Currently we need to just save the user into the database)*
- Once activated, user can login with the given email-id and password and enjoy other benefits of the portal

b. Login

- a. After activating the account, customer can login to the portal using his/her login id and password given during the time of registration
- b. After logging in user is redirected to the page where they came from to the registration page, where he/she can enter travel related information and search for flights available to book tickets
- c. Also can view and edit profile information

c. Profile

- a. Once user registers with happytrip.com, a profile is automatically created
- b. User can view his/her profile information anytime on the portal
- c. User can also update the profile any time after logging into the portal
- d. Profile information would be
 - i. Full Name
 - ii. Gender
 - iii. Date Of Birth
 - iv. Address
 - v. City
 - vi. State
 - vii. Country
 - viii. Pin Code
 - ix. Mobile No
 - x. Email Id [Which is also the login id, cannot be changed]
- e. Full Name, email-id, gender, date of birth and password is collected during registration and the rest can be added anytime by the user
- f. An option to view and edit the profile is available to the user

d. Book Ticket – [Both registered and non-registered users]

- a. User can book tickets on the portal with or without registration
- b. First, user has to enter travel information and get to know the flights available for his/her travel
- c. Information to be given
 - i. From City
 - ii. To City
 - iii. Date Of Travel
 - iv. No Of Seats
 - v. Direction Of Travel – Onward or Return
- d. Checks should be done to ensure that the user don't attempt to book tickets beyond 3 months from the current date.
- e. Checks should also be done to ensure that there are seats available in the requested flight.
- f. Checks should also be done to ensure that there are flights operating from and to destinations.
- g. Once user enters the above mentioned information, details regarding all the flights available for the given travel information are listed
- h. Information to be displayed would be

- i. From City
- j. To City
- k. Date of Travel
- l. Flight No
- m. Airline Name
- n. Departure Time of Flight
- o. Arrival Time of Flight
- p. Cost of the ticket /per person
- q. Results should be sorted in the order of price, Lowest on top
- r. From here user would select an appropriate flight for his/her journey
- s. User must enter the details of all passengers who will be travelling along.
For each additional passenger, the following details must be provided.
 - i. Name
 - ii. Gender
 - iii. Date of birth
- t. If user has logged in, then we need to pick up all these details from his/her profile and pre-fill the form for data available
- u. All fields mentioned above would be mandatory
- v. After entering all the information, a confirmation screen should be provided where user is shown all the details regarding the ticket to be booked
 - i. From City – Airport
 - ii. To City – Airport
 - iii. No Of Seats
 - iv. Date of Travel
 - v. Flight No
 - vi. Airline Name
 - vii. Departure Time of Flight
 - viii. Arrival Time of Flight
 - ix. Duration of travel [for Ex: 1hr : 30 mins]
 - x. Cost of the ticket /per person
 - xi. Date of travel
 - xii. Date Of booking
 - xiii. Full Name
 - xiv. Gender
 - xv. Date Of Birth
 - xvi. Address
 - xvii. City

- xviii. State
- xix. Country
- xx. Pin Code
- xxi. Mobile No
- xxii. Other Contact No
- xxiii. Email Id
- w. Once submitted, information is saved and a unique booking no is generated and displayed to the user along with all the above mentioned travel information
- x. If not processed successfully, user has to be informed about the same and should be asked to retry the booking
- y. Once successful, information returned from the other environment would be
 - i. Payment Reference No
 - ii. Payment Status
- z. Data is stored for booking only after payment has successfully gone through

Admin Module

Admin will be able to manage data and users through the admin module. Admin can login using his/her login id and password. Admin will maintain the master data in the database. These operations have to be carried out only by the admin and travel user should not have the access to them

a. Airline information

- a. Name
- b. Code
- c. Logo – *(Ideally we should have the feature to upload an image. Currently we don't have the same. User has to take an image and then put in a folder and then paste the path in the given text. Will be implemented in the next release)*
- d. Admin should be able to add a new airline, view airlines and update existing airline.
- e. Whenever displayed airlines should be sorted alphabetically

b. Flight management

- a. Name of the flight
- b. Flight no
- c. Associated to Airline

- d. Different classes available (Economy and Business – Two we consider)
- e. Capacity- No of Seats – Corresponding to the class
- f. Admin should be able to add a new flight to the existing airline. To add a flight, the application should pre fill the airlines available in the UI.
- g. Admin would also have the option to update and view all flights
- h. Whenever displayed should be sorted alphabetically

c. City Information

- a. Every city should have a unique ID and a name.
- b. Admin can add, update or view city information

d. Route Information

- a. Prior to scheduling a flight, a Route needs to exist from Origin to Destination. The needed information could be – unique Route Id, From City, To City and Distance in Kms. <http://www.travelmath.com/> is a useful website to calculate flight distance and flight time between two cities to fill in credible information in the database. Route Bangalore to Chennai is different from Route Chennai to Bangalore
- b. Admin would be able to view all routes and apart from that would be able to add or edit route information entered

e. Schedule Management

- a. From City
- b. To City
- c. Departure Time of Flight
- d. Arrival Time of Flight Duration
- e. Cost Per Ticket
 - Tickets can be priced depending on the distance travelled.
 - For Example: If distance less than 500 kms then the cost per km can be say Rs.120 per km and if the distance is between 501 and 1000 kms then the cost per km can be say Rs. 70 per km and if the distance is above 1000 kms then the cost per km can be Rs.50 per km.
 - Cost would be based on the class available in the flight for that schedule
- f. Total Duration of travel
- g. It is the responsibility of the Admin Mgr to schedule the flights also. Flights can be scheduled for a 24 hour period. Supposing a Flight Jet_ATR needs to be scheduled, Admin needs to know from which city the flight

was scheduled. Say for example if Jet_ATR is scheduled to leave Bangalore at 6:30 am for Chennai, then the next flight schedule can only be from Chennai and after 45 mins-1 hour of landing time. Admin also has to ensure the Flight Jet_ATR reaches Bangalore before 5:30 am next day, as the same flight has been scheduled to depart Bangalore at 6:30 am. Before scheduling the flight, the admin should select an existing airline and an existing flight which can be scheduled. It would be a good idea to pre fill information to facilitate easy flight scheduling.

f. Error Logging

- Errors and exceptions occurring in the application should be logged and preferably sent as an email to the Admin so that he gets to know the errors/exception that occurred.
- Once exception occurs we should have the option to write into a text file or an xml file or write into event log or even send a mail to a given e-mail id

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